



Perception of Advertising of Tobacco Products and Warnings about the Harmfulness of Smoking by Smokers

Ewa Siwińska-Beck¹

Małgorzata Znyk¹

<https://orcid.org/0000-0002-0872-7293>

Dorota Kaleta¹

<https://orcid.org/0000-0001-8453-8235>

¹ Department of Hygiene and Health Promotion, Medical University of Lodz, Poland

Address for correspondence

Małgorzata Znyk
Department of Hygiene and Health Promotion, Medical University of Lodz
7/9 Zeligowskiego St., 90-752 Lodz, Poland
znyk@poczta.onet.pl

Abstract

Introduction: Advertising of tobacco products contributes to the increase in the number of smokers. Also in Poland, the regulations in force prohibit advertising and promotion of tobacco products, symbols related to their use, as well as tobacco props and products imitating them. This prohibition applies to the promotion and advertising of tobacco products, including in public places, schools, health care institutions, but also on television, radio, in the press, cinemas and on billboards. The 6 effective actions of the MPOWER package of the World Health Organization, which may limit the consumption of tobacco products in society, include the elimination of marketing practices violating the ban on promotion and advertising of tobacco products, as well as warning and informing about health risks related to the use of tobacco. According to research, graphic health warnings on tobacco products are effective. They reliably reach tobacco users every time they use these products.

Aim: The aim of the study was to assess the perception of advertisements for tobacco products and warnings about the harmful effects of smoking by smokers.

Material and methods: A survey conducted in 2015. 114 smokers from Piotrków County. The research tool was a questionnaire. The Bioethics Committee of the Medical University of Lodz issued a positive opinion on the study (RNN/243/15/KE).

Results: During the last 30 days, smokers most often encountered information on the harmful effects of smoking on television (54%) and in newspapers or magazines (52%).

Within the last 30 days, 97% of respondents saw information on the dangers of smoking on cigarette packets. 54% of smokers, under the influence of health warnings on cigarette packets, considered stopping smoking in the last 30 days. Smokers noticed forms of promotion of cigarettes: as many as 16% of respondents noticed free cigarette samples, 13% of discounted cigarettes. 36% of smokers believed that advertising and displaying tobacco products at points of sale did not affect the type of product purchased.

Conclusions: *There is a need for interventions to alert against the dangers of smoking. Rules to ban tobacco display and smoke warning can help reduce smoking.*

Key words: *tobacco advertising, media, tobacco outlets, smoking tobacco*

CC-BY-SA 3.0 PL

Introduction

The tobacco epidemic remains one of the main threats to public health, accounting for around 8 million deaths annually worldwide [1]. In Poland, tobacco consumption is also a public health concern [2]. Smoking in Poland is the most important risk factor responsible for the loss of 2 060 000 years of healthy life, which constitutes 16.3% of the total value of disability adjusted life-year (DALY) [3]. Every fifth Pole admitted to heavy smoking in 2019 [4].

The tobacco industry uses tobacco promotion, advertising and sponsorship (TAPS) as common tactics to encourage the use of tobacco products [5].

Low enforcement of the tobacco advertising ban, observed in many countries, makes it possible for the tobacco industries to promote tobacco products illegally.

Anti-smoking policy include a comprehensive ban on tobacco promotion and advertising and a smoking ban in many indoor public places. Anti-smoking policies were first introduced in the 1990s [2].

The 6 effective actions of the MPOWER package of the World Health Organization, which may limit the consumption of tobacco products in society, include the elimination of marketing practices violating the ban on promotion and advertising of tobacco products, as well as warning and informing about health risks related to the use of tobacco [6].

65% of the population (about 5 billion people) have at least one comprehensive smoking control measure. One of the methods introduced in around 91 countries is the conspicuous graphical health warnings on tobacco packages [1].

Also in Poland, the regulations in force prohibit advertising and promotion of tobacco products, symbols related to their use, as well as tobacco props and products imitating them. This prohibition applies to the promotion and advertising of tobacco products, including in public places, schools, health care institutions, but also on television, radio, in the press, cinemas and on billboards [7]. People's perception of the harmfulness of tobacco and nicotine products can influence their use.

Upon joining the Framework Convention on Tobacco Control (FCTC), Poland undertook to inform people who use tobacco products about the health effects of smoking and about the deadly threat posed by their use [8]. The Act of 1995 also imposes an obligation to inform about the harmfulness of tobacco smoking on the packaging of tobacco products [7].

The inclusion of health information and properly designed warnings on tobacco product packages reduces tobacco consumption.

Research shows that graphic health warnings on tobacco product packages are an effective form and reliably reach smokers every time they use them [8]. It is important that the warnings on the packages are large and cover at least half the surface of the tobacco package [9].

Health warnings and information containing both pictures and text are much more effective than purely textual [8].

In Poland, the unit packaging and collective packaging of smoking tobacco products bear the following warning: "Smoking kills – quit now!". Information is also provided where consumers can find out about support facilities for people who want to quit smoking (telephone numbers, website addresses, e-mail addresses) [7].

There is evidence that accurate, clear warnings make tobacco users think about quitting and may result in a reduction in tobacco use [10, 11].

The aim of the study was to assess the perception of advertisements for tobacco products and warnings about the harmful effects of smoking by smokers.

Materials and methods

The Bioethics Committee of the Medical University of Lodz approved the study (RNN/ 243/15/KE). In 2015 a cross-sectional study was carried out on smokers from the Piotrków district who gave their written consent to participate in the study. A detailed description of the study has been published elsewhere [12, 13].

The research tool was a questionnaire. The questionnaire consisted of the sections: information about the participant (socio-demographic data)

and information about tobacco (at points of sale, media, advertising). The tobacco information section provided data on how smokers had perceived advertising over the past 30 days. The perception of health warnings on cigarette packets that smokers have come into contact with in the last 30 days is also taken into account.

Results

114 study participants were cigarette smokers. Out of 114 respondents, 63 people (55%) were women, and 51 (45%) were men.

The most common smokers were married people (47%), in the 50–59 age group (33%), with secondary education (39%). 60% of the respondents worked as an employed person, and every fourth respondent had a net monthly income more than PLN 1,000 to PLN 1,500 per family member (Table 1).

Table 1. Characteristics of the studied population (N = 114)

Variable	N	%
Sex		
• female	63	55.3
• man	51	44.7
Age (years)		
• < 30	14	12.3
• 30–39	27	23.7
• 40–49	9	7.9
• 50–59	38	33.3
• ≥ 60	26	22.8
Marital status		
• bachelor/miss	28	24.6
• married	53	46.5
• divorced	18	15.8
• widower/widow	15	13.1
Education		
• basic	2	1.8
• basic vocational	21	18.4
• average	44	38.6
• post-secondary	14	12.3
• higher	33	28.9

Professional status in the last 12 months		
• salaried employee	68	59.7
• self-employed person	11	9.6
• pupil/student	3	2.6
• housewife	2	1.8
• pensioner / annuitant	23	20.2
• unemployed	7	6.1
Monthly net family income per person		
• up to 500 PLN	11	9.7
• over 500 to 700 PLN	8	7.0
• over 700 to 1000 PLN	18	15.8
• above 1000 to 1500 PLN	29	25.4
• above 1500 to 2000 PLN	26	22.8
• above 2000 to 2500 PLN	13	11.4
• above 2500 PLN	9	7.9
Smoking tobacco		
• Yes everyday	106	92.9
• Yes, less than every day	8	7.1
How many cigarettes do you smoke in total during the day? (pieces)		
• < 1	2	1.7
• 1-5	5	4.4
• above 5 do 10	27	23.7
• above 10 do 20	61	53.5
• above 20 do 30	18	15.8
• above 30	1	0.9
Number of years of regular daily smoking? (after deducting any interruptions for abstinence)		
• < 10	17	15.0
• 10-20	36	31.6
• 21-30	29	25.4
• 31-40	20	17.5
• > 40	11	9.6
• No data	1	0.9
Have you ever tried to quit smoking?		
• Yes	65	57.0
• No	49	43.0
If you have ever tried to quit smoking it how many times?		
• 0	2	1.7
• 1-2	37	32.5
• 3-4	30	26.3
• 5-6	6	5.3
• 6+	3	2.6
• No data	36	31.6

7% are smokers less frequently than daily smokers, and 93% of all respondents are daily smokers. The fewest (0.9%) smoked more than 30 cigarettes during the day, and the most common (53%) more than 10 to 20 cigarettes.

The number of years of regular daily smoking for every third subject was 10–20 years, and for every fourth subject – 21–30 years (after subtracting any interruptions for abstinence).

65 respondents (57%) have ever tried to quit smoking, the most common being 1–2 attempts in their life (33%).

Television, newspapers and magazines are the places where smokers most often encountered information on the harmfulness of smoking in the last 30 days (54% and 52% respectively). Educational and health materials (45%), the Internet (38%), billboards (25%) and radio (24%) were also often mentioned as sources of information on the harmfulness of smoking.

During the last 30 days, 110 respondents (97%) saw information on the dangers of smoking on cigarette packets. 62 smokers (54%) considered quitting smoking in the past 30 days because of perceived health warnings on cigarette packets.

Most of the respondents (47%) were in favor of introducing graphic forms on tobacco products showing the harmful effects of smoking, while 22% were against it.

Smokers noticed various forms of cigarette promotion: 16% of respondents noticed free cigarette samples, 13% of discounted cigarettes, 8% of clothes or other articles with the name or logo of the cigarette brand. 8% of smokers noticed offers of free gifts and discounts on other products when buying cigarettes. 7% of respondents saw promotions of cigarettes in postal items (Table 2).

Table 2. Smokers' perception of tobacco advertising (N = 114)

Variable	N	%
Are in the last 30 days in the following media you have come across the information about the dangers of smoking or those that have encouraged you to quit smoking?		
In newspapers or magazines		
• Yes	59	51.8
• No	50	43.8
• Not applicable	5	4.4
In TV		
• Yes	61	53.5
• No	50	43.9
• Not applicable	3	2.6
On the radio		
• Yes	27	23.7
• No	83	72.8
• Not applicable	4	3.5
On billboards		
• Yes	28	24.6
• No	83	72.8
• Not applicable	3	2.6
Online		
• Yes	43	37.7
• No	66	57.9
• Not applicable	5	4.4
In educational and health materials		
• Yes	51	44.7
• No	59	51.8
• Not applicable	4	3.5
In the last 30 days, have you seen information on the dangers of smoking on cigarette packets?		
Yes	110	96.5
No	4	3.5
In the last 30 days, have you considered stopping smoking due to the health warnings on cigarette packets?		
Yes	62	54.4
No	52	45.6

In the last 30 days, have you noticed any of the following forms of cigarette promotion?		
Free cigarette samples		
• Yes	18	15.8
• No	85	74.6
• I don't know	11	9.6
Cigarettes on sale		
• Yes	15	13.2
• No	88	77.2
• I don't know	11	9.6
Cigarette tickets		
• Yes	5	4.4
• No	97	85.1
• I don't know	12	10.5
Offers of free gifts or discounts on other products when buying cigarettes		
• Yes	9	7.9
• No	91	79.8
• I don't know	14	12.3
Clothes or other items with a name or logo cigarette brands		
• Yes	9	7.9
• No	93	81.6
• I don't know	12	10.5
Promotion of cigarettes in postal items		
• Yes	8	7.0
• No	93	81.6
• I don't know	13	11.4
Do you think that advertising and displaying tobacco products at points of sale make it difficult for you to quit smoking?		
• Definitely not	25	21.9
• Probably not	48	42.1
• I have no opinion	23	20.2
• Probably yes	12	10.5
• Definitely yes	6	5.3

Do you think that advertising and displaying tobacco products at points of sale affect the choice of the brand of the product you buy?		
Definitely not	24	21.0
Probably not	46	40.4
I have no opinion	18	15.8
Probably yes	20	17.5
Definitely yes	6	5.3
Do you think that advertising and displaying tobacco products at points of sale affect the type of product you buy?		
Definitely not	20	17.5
Probably not	41	36.0
I have no opinion	22	19.3
Probably yes	25	21.9
Definitely yes	6	5.3
Do you consider it right to raise the tax on tobacco products?		
Definitely not	33	29.0
Probably not	43	37.7
I have no opinion	28	24.6
Probably yes	8	7.0
Definitely yes	2	1.7
Do you consider it right to prohibit the display of tobacco products in points of sale?		
Definitely not	12	10.5
Probably not	41	36.0
I have no opinion	36	31.6
Probably yes	17	14.9
Definitely yes	8	7.0
Do you consider it right to introduce a complete ban on the production and sale of cigarettes and other tobacco products intended for smoking?		
Definitely not	45	39.5
Probably not	44	38.6
I have no opinion	19	16.7
Probably yes	3	2.6
Definitely yes	3	2.6

Do you consider it right to introduce pictures of the harmful effects of smoking on tobacco products?		
Definitely not	15	13.2
Probably not	17	14.9
I have no opinion	28	24.6
Probably yes	29	25.4
Definitely yes	25	21.9

According to the surveyed smokers, 36% believed that advertising and displaying tobacco products at points of sale did not affect the type of product they buy, while 18% believed that it definitely did not. Every fifth person did not have an opinion on this subject.

For 22% of point-of-sale smokers, it would be appropriate to ban the display of tobacco products. Every third person did not have an opinion on this subject, and 46% did not share this opinion.

For the majority of respondents (about 64%), displaying tobacco products and advertising at points of sale did not make it difficult for smokers to quit smoking.

5% of respondents were in favor of introducing a complete ban on the production and sale of cigarettes and other tobacco products, 79% of respondents did not support this ban. 67% of respondents were in favor of raising the tax on tobacco products.

Discussion

Our research complements the literature on the perception of tobacco advertising by smokers and warnings about the dangers of smoking.

Points of sale (POS) have become important tobacco display venues for tobacco companies in countries where tobacco advertising and promotion bans have been introduced [14].

Our study found that smokers notice various forms of cigarette promotion. Free cigarette samples (16%) and discounted cigarettes (13%) were most often perceived. Offers of free gifts and discounts on other products were also noted at points of sale when buying cigarettes (8%).

This may indicate poor enforcement of the ban on tobacco advertising at points of sale. Moreover, they show that enforcement of existing legislation needs to be improved.

Other studies also show a strong correlation between smoking initiation, susceptibility and progression and exposure to advertising (including at POS) [14–20].

Every second person in our study did not support the validity of the ban on displaying tobacco products at POS (points of sale). It was observed that when shopping at POS, noticing tobacco at an exhibition each time more than threefold increased the likelihood of susceptibility compared to never noticing tobacco [16].

Every fourth smoker, as a result of viewing a cigarette exhibition, bought cigarettes at least sometimes on an impulse. One in eight smokers who have recently quit smoking and one in five smokers who have tried to quit, avoided outlets where they usually bought cigarettes. These were actions in case they were tempted to buy them [18].

34% of people who have recently quit smoking and 38% of smokers who have tried to quit in the last 12 months have experienced an urge to buy cigarettes after viewing a retail display [18]. Another research by Kaleta et al. carried out in Poland showed a violation of the ban on tobacco and e-cigarette advertising in POS. There was a decrease in the promotion of tobacco products at POS in the form of boards, mats and posters, but an increase in video screens (8% in 2014, 30% in 2019). Accessories and products imitating tobacco products were less popular TAPS (10% in 2014, 2% in 2019) [21].

In another study, which was realized in 25 European countries, exposure to indirect advertising such as free cigarette samples or tobacco company logos on promotional items was common in all countries.

10.9% said that a tobacco company representative had ever offered them “free” cigarettes. The item with the cigarette brand logo was owned by 18.2% of respondents. 20% of respondents in Poland, the Republic of Serbia and Montenegro were offered free cigarettes [22].

In contrast, a study by Rudatsikira et al found that at least 95.5% of men and women reported seeing a tobacco brand on TV in the last

30 days. About half of the study participants reported tobacco-related advertisements in magazines in the past 30 days, and 7.8% reported possession of an item with a tobacco brand logo. Women saw tobacco-related advertisements in the media more often than men [23].

Free tobacco products and tobacco advertising on television, on video, in shops and at street vendors are more likely to use tobacco [24]. A study in 19 developing countries showed that there is a positive correlation between smoking and exposure to advertising [25].

Smokers in the display ban conditions were less likely to attempt to purchase cigarettes. People who recently quit smoking under the advertising ban were less likely to smoke [26]. Many smokers (31.4%) believe that removing cigarette displays from shops will make it easier for them to quit [18].

The main goal of tobacco control policy is to communicate the dangerous effects of smoking. In our study, 45% of respondents came across information on the harmfulness of tobacco smoking in educational and health materials, and 38% on the Internet. More than half of the smokers in our study most often encountered information on the harmful effects of smoking on television, as well as in newspapers or magazines.

It has been shown that, in addition to reducing the advertising of tobacco products, warning signs and less attractive cigarette packages have been shown to reduce tobacco smoking [27]. Our study showed that as many as 97% of smokers saw information on cigarette packets warning against the harmful effects of smoking. Similar results were obtained in other studies (over 90% of respondents) [28–30].

Research shows that smoking cessation or smoking reduction can be influenced by warning labels placed on tobacco products [28, 31].

This proves the effectiveness of displaying graphic health warnings on the packages of tobacco products [1, 32].

In another study, 95% of respondents were informed about the harmful effects of smoking. Under the influence of this information, 14% of people reduced the number of cigarettes smoked per day, and 5% intended to quit smoking. The majority (47%) believed that health warnings with images and text could have a greater impact than text-only warnings [33].

Another study confirms that the warnings perceived by respondents (70%) increase the awareness of the health risks associated with smoking. They also help to reduce or quit smoking [28].

Respondents notice warnings on tobacco products, and most believe that they can understand warning labels [30]. Smokers exposed to plain packets try to buy cigarettes much less frequently than people exposed to colored packets [26].

In our study, every second smoker believed it was right to introduce pictures of the harmful effects of smoking on tobacco products. In other studies, all picture warnings on cigarette packets were found to be more effective than text warnings [30, 34]. Pictorial health warnings are seen to be more effective in stopping smoking among non-smokers as well as in stimulating smoking cessation among smokers [30, 35]. They are eye-catching and provide additional motivation to quit smoking [30].

Every second smoker in our study, under the influence of health warnings on cigarette packets, considered giving up smoking in the last 30 days.

Also in the study by Sharm et al., a significant relationship was found between awareness of the negative effects of smoking and an attempt to quit smoking [36].

Our study is a study that was first conducted among the socially disadvantaged rural adult population. The analysis has strengths and weaknesses that have been described elsewhere [12]. The study used a cross-sectional design that tends to be observable at one point in time, making it impossible to observe changes over longer periods of time. The study is also limited by a small group of the population.

Conclusions

There is a need for interventions to alert against the dangers of smoking. Rules to ban tobacco display and smoke warning can help reduce smoking. A policy that introduces warning labels on the packaging of tobacco products can effectively inform people about the adverse health effects of smoking and play a key role in reducing the number of people smoking.

References

1. World Health Organization. WHO Report on the Global Tobacco Epidemic 2019: Offer Help to Quit Tobacco Use [Internet]. Available from: <https://www.who.int/teams/health-promotion/tobacco-control/who-report-on-the-global-tobacco-epidemic-2019> [cited 10.05.2021].
2. OECD/European Observatory on Health Systems and Policies. Country Health Profile, Poland; 2019; State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels, Belgium; 2019 [Internet]. Available from: <https://doi.org/10.1787/297e4b92-en> [cited 10.05.2021].
3. Wojtyniak B, Gorynski P. Health Status of Polish Population and Its Determinants. Warsaw: National Institute of Public Health National Institute of Hygiene; 2020.
4. Raport Głównego Inspektoratu Sanitarnego. Postawy Polaków wobec palenia tytoniu. GIS; 2019 [Internet]. <https://www.gov.pl/web/gis/postawy-polakow-wobec-palenia-tytoniu--raport-2017>.
5. Gautam P, Bhatta D, Sharma E, Rahman A, Dawit R, Li W, Ebrahimi Kalan M, Acharya Gautam S, Li T, Maziak W. Influence of Tobacco Marketing on Nepalese Adolescents: Cigarette Use and Susceptibility to Cigarette Use. *Asian Pac J Cancer Prev* 2020; 21(9): 2689–2695. <https://doi.org/10.31557/APJCP.2020.21.9.2689>.
6. Program ograniczenia zdrowotnych następstw palenia tytoniu w Polsce. Cele i zadania na lata 2014–2018. Warszawa: Ministerstwo Zdrowia; 2013.
7. Act of 9 November 1995 on the Protection of Health from the Consequences of Tobacco (Dz.U. 2021, poz. 276) [Internet]. Available from: <https://isap.sejm.gov.pl/> [cited 10.05.2021].

8. Ramowa Konwencja Światowej Organizacji Zdrowia (WHO) o ograniczeniu palenia tytoniu. Genewa: WHO Regional Office for Europe; 2009.
9. Kowitz SD, Noar SM, Ranney LM, Goldstein AO. Public attitudes toward larger cigarette pack warnings: Results from a nationally representative U.S. sample. *PLoS One* 2017; 12(3): e0171496.
10. Kamyab K, Nonnemaker JM, Farrelly MC. Public support for graphic health warning labels in the U.S. *American Journal of Preventive Medicine* 2015; 48(1): 89–92.
11. Policy Evaluation. FCTC Article 11: tobacco warning labels. Evidence and recommendations from the ITC project. Waterloo, Ontario: International Tobacco Control; 2009.
12. Znyk M, Kaleta D. Subjective assessment of health in people with varying degrees of nicotine addiction. *Journal of Health Study and Medicine* 2020; 4: 47–65. <https://doi.org/10.36145/JHSM2020.26>.
13. Milcarz K, Makowiec-Dąbrowska T, Bąk-Romaniszyn L, Kaleta D. Smoking Patterns and Smoking Cessation Willingness-A Study among Beneficiaries of Government Welfare Assistance in Poland. *Int J Environ Res Public Health* 2017; 14: 131.
14. Ford A, MacKintosh AM, Moodie C, Kuipers MAG, Hastings GB, Bauld L. Impact of a ban on the open display of tobacco products in retail outlets on never smoking youth in the UK: findings from a repeat cross-sectional survey before, during and after implementation. *Tob Control* 2020; 29(3): 282–288.
15. Usidame B, Miller EA; Cohen JE. Assessing the Relationship between Retail Store Tobacco Advertising and Local Tobacco Control Policies: A Massachusetts Case Study. *J Environ Public Health* 2019; 1823636.

16. Spanopoulos D, Britton J, McNeill A, Ratschen E, Szatkowski L. Tobacco display and brand communication at the point of sale: Implications for adolescent smoking behaviour. *Tob Control* 2014; 23: 64–69.
17. Paynter J, Edwards R. The impact of tobacco promotion at the point of sale: A systematic review. *Nicotine Tob Res* 2009; 11: 25–35.
18. Wakefield M, Germain D, Henriksen L. The effect of retail cigarette pack displays on impulse purchase. *Addiction* 2008; 103: 322–328.
19. Petticrew M, Semple S, Hilton S, Creely KS, Eadie D, Ritchie D, Ferrell C, Christopher Y, Hurley F. Covert observation in practice: Lessons from the evaluation of the prohibition of smoking in public places in Scotland. *BMC Public Health* 2007; 7: 204.
20. World Health Organization. WHO Report on the Global Tobacco Epidemic, 2013. Enforcing Bans on Tobacco Advertising, Promotion and Sponsorship [Internet]. Available from: https://www.who.int/tobacco/global_report/2013/en/ [cited 10.05.2021].
21. Polanska K, Kaleta D. Tobacco and E-Cigarettes Point of Sale Advertising – Assessing Compliance with Tobacco Advertising, Promotion and Sponsorship Bans in Poland. *Int J Environ Res Public Health* 2021; 18(4): 1976. <https://doi.org/10.3390/ijerph18041976>.
22. Baska T, Warren ChW, Baskova M, Jones NR. Prevalence of youth cigarette smoking and selected social factors in 25 European countries: findings from the Global Youth Tobacco Survey. *Int J Public Health* 2009; 54(6): 439–445. <https://doi.org/10.1007/s00038-009-0051-9>.
23. Rudatsikira E, Muula AS, Siziya S. Prevalence, Correlates of and Perceptions Toward Cigarette Smoking Among Adolescents in South Korea. *Indian J Pediatr* 2009; 76(5): 505–510.

24. Khan JR, Raheem E, Daniel M. The prevalence and correlates of tobacco use among 7–9th grade students in Bangladesh. *Children and Youth Service Review* 2019; 104: 104406.

25. Kostova D, Blecher E. Does advertising matter? Estimating the impact of cigarette advertising the impact of cigarette advertising on smoking among youth in developing countries. *Contemporary Economic Policy* 2013; 31(3). <https://doi.org/10.1111/j.1465-7287.2012.00323.x>.

26. Nonnemaker J, Kim A, Shafer P, Loomis B, Hill E, Holloway J, Farrelly M. Influence of point-of-sale tobacco displays and plain black and white cigarette packaging and advertisements on adults: Evidence from a virtual store experimental study. *Addictive Behaviors* 2016; 56: 15–22.

27. Asamura H, Chansky K, Crowley J, Goldstraw P, Rusch VW, Vansteenkiste JF. The International Association for the Study of Lung Cancer Staging Project: proposals for the revision of the N descriptors in the forthcoming 8th edition of the TNM classification for lung cancer. *J Thorac Oncol* 2015; 10(12): 1675–1684. <https://doi.org/10.1097/JTO.0000000000000678>.

28. Chopra A, Rao NC, Gupta N, Vashisth S. Communicating tobacco health risks: How effective are the warning labels on tobacco products? *Niger Med J* 2014; 55(5): 411–416. <https://doi.org/10.4103/0300-1652.140383>.

29. Shah VR, Dave VR, Sonaliya KN. Impact of anti-tobacco warning labels on behaviour of tobacco users in one of the cities of Gujarat, India. *J Prev Med Hyg* 2013; 54(2): 109–113.

30. Vanishree N, Narayan RR, Naveen N, Bullapa D, Vignesh D, Raveendran NMP. Impact of pictorial warning labels on tobacco products among patients attending outpatient department of a dental college in Ban-

galore city: A cross-sectional study. *Indian J Cancer* 2017; 54(2): 461–466. https://doi.org/10.4103/ijc.IJC_203_17.

31. Chow CK, Corsi DJ, Gilmore AB, Kruger A, Igumbor E, Chifamba J et al. Tobacco control environment: cross-sectional survey of policy implementation, social unacceptability, knowledge of tobacco health harms and relationship to quit ratio in 17 low-income, middle-income and high-income countries. *BMJ Open* 2017; 7(3): e013817. <https://doi.org/10.1136/bmjopen-2016-013817>.

32. Borland R, Wilson N, Fong GT, Hammond D, Cummings KM, Yong HH, Hosking W, Hastings G, Thrasher J, McNeill A. Impact of graphic and text warnings on cigarette packs: findings from four countries over five years. *Tob Control* 2009; 18(5): 358–364.

33. Mannocci A, Antici D, Boccia A, Torre GL. Impact of cigarette packages warning labels in relation to tobacco-smoking dependence and motivation to quit. *Epidemiol Prev* 2012; 36(2): 100–107.

34. Alaouie H, Afifi RA, Haddad P, Mahfoud Z, Nakkash R. Effectiveness of pictorial health warnings on cigarette packs among Lebanese school and university students. *Tob Control* 2015; 24(e1): e72–80. <https://doi.org/10.1136/tobaccocontrol-2012-050745>.

35. Suci PR, Dewi S. Perceived effectiveness of pictorial health warnings on changes in smoking behaviour in Asia: a literature review. *BMC Public Health* 2018; 18(1): 1165. <https://doi.org/10.1186/s12889-018-6072-7>.

36. Sharma SK, Prasuna G, Thakur K, Gupta M. Effect of magnification and changes in tobacco pictorial warning on asceticism of tobacco use: An exploratory survey. *J Family Med Prim Care* 2020; 9(12): 6051–6060. https://doi.org/10.4103/jfmpc.jfmpc_1509_20.