**ORIGINAL ARTICLE**

# Smoking Cessation Awareness Among Active and Passive Smokers in Surabaya

Nurshafiqah Guasin[1], Nur Hafifah Hasanuddin[1], Nurul Fathin Athirah Md Noor[1], Sharifah Nurul Fatin Afiqah Mohd Idrus[1], Muhammad Luqman Nurhakim Ahmad Sufie[1], Nafiisa Aaliyah Fathar[1], Elida Zairina[2*]

[1]Students of Undergraduate Program of Faculty of Pharmacy Universitas Airlangga, Surabaya, Indonesia
[2]Departement of Pharmacy Practice, Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia
Gedung Nanizar Zaman Joenoes Kampus C, Jl. Ir. Soekarno, Surabaya 60115, Indonesia

*E-mail*: elida-z@ff.unair.ac.id
https://orcid.org/0000-0003-0845-4640 (E. Zairina)

**ABSTRACT**

Tobacco consumption is still relatively high and increasing compared to the results of 2007 and 2013. The burden of disease in Indonesia is increasing every year, and smoking is one of the leading causes. The critical issue that has to be addressed is a lack of smoking cessation awareness among active and passive smokers. The prolonged use of tobacco products and the exposure of non-smokers to dangerous secondhand smoke both occur as the consequences of this ignorance. This study aimed to assess the willingness to quit smoking and the awareness of existing Nicotine Replacement Therapy (NRT) or QUITLINE Program. The subjects were chosen by convenient sampling for those who met the inclusion criteria, including Surabaya citizens aged 18 years and above, active smokers and passive smokers due to living/staying with active smokers. The data were collected using a self-administered questionnaire. The data were analyzed descriptively using IBM SPSS software version 26.0. About 106 subjects participated in the study consists of 77% male, 23% female, with ages ranging from 19 to 62 years. The data showed that 57.55% (n=61) of smokers, 42.45% (n=45) non-smokers. Of 106 respondents, 67 (63.2%) had never heard about Nicotine Replacement Therapy (NRT) and 98.4% (60 smokers) had never heard of QUITLINE Program. Encouragingly, 63.9% (39 smokers) of the smokers were aware of the dangers of smoking. From this study, it can be concluded that the awareness of smoking cessation among the residents in Mulyorejo, Surabaya, was high. However, some of them were not convinced yet to stop smoking because their intention to quit smoking was low.

*Keywords: awareness, smoking cessation, smoking.*

**ABSTRAK**

Konsumsi tembakau masih tergolong tinggi dan meningkat dibandingkan hasil tahun 2007 dan 2013. Beban penyakit di Indonesia semakin meningkat setiap tahunnya, dan rokok merupakan salah satu penyebab utamanya. Masalah penting yang harus diatasi adalah kurangnya kesadaran berhenti merokok di kalangan perokok aktif dan pasif. Penggunaan produk tembakau dalam jangka waktu lama dan paparan asap rokok berbahaya bagi orang yang bukan perokok merupakan akibat dari ketidaktahuan ini. Penelitian ini bertujuan untuk menilai kesediaan untuk berhenti merokok dan kesadaran terhadap Terapi Penggantian Nikotin (NRT) atau Program QUITLINE yang ada. Subjek dipilih secara *convenience sampling* bagi yang memenuhi kriteria inklusi antara lain warga Surabaya berusia 18 tahun ke atas, perokok aktif, dan perokok pasif karena tinggal/tinggal bersama perokok aktif. Data dikumpulkan dengan menggunakan kuesioner yang diisi sendiri oleh responden. Data dianalisis secara deskriptif dengan menggunakan IBM SPSS versi 26.0. Sekitar 106 subjek berpartisipasi dalam penelitian ini terdiri dari 77% laki-laki, 23% perempuan, dengan usia berkisar antara 19 hingga 62 tahun. Data menunjukkan bahwa 57,55% (n=61) perokok, 42,45% (n=45) bukan perokok. Dari 106 responden, 67 orang (63,2%) belum pernah mendengar tentang Terapi Penggantian Nikotin (NRT) dan 98,4% (60 perokok) belum pernah mendengar tentang Program QUITLINE. Secara positif, sebanyak 63,9% (39 perokok) dari perokok sadar akan bahaya merokok. Dari penelitian ini dapat disimpulkan bahwa kesadaran berhenti merokok pada masyarakat di wilayah Mulyorejo Surabaya tergolong tinggi. Namun masih ada sebagian dari mereka yang belum yakin untuk berhenti merokok karena rendahnya niat mereka untuk berhenti merokok.

**Kata Kunci:** *berhenti merokok, merokok, kesadaran.*

157

# INTRODUCTION

Cigarette smoking, both active and passive, is one of the modifiable risk factors for preventable mortality and a major source of illness in the world's population. The World Health Organization (WHO, 2023), estimates that in 2020, 22.3% of people worldwide—36.7% of men and 7.8% of women—used tobacco. Over 8 million people are killed by tobacco every year, including an estimated 1.3 million non-smokers who are exposed to secondhand smoke. According to data from the Indonesia Basic Health Survey Riskesdas (2018), the percentage of teenagers aged 10 to 18 who smoke increased from 7.2% in 2013 to 9.1% in 2018. The only nation in Asia without ratification of the Framework Convention on Tobacco Control (FCTC) in Indonesia (Faisal *et al*, 2022).

Furthermore, the BPS (2018) reports that the poverty rate in the province of East Java was approximately 11%. Ironically, as of 2018, 28.11% of people in East Java were smokers (Health Research and Development Agency, 2018). This rate is quite close to the 28.8% nationwide prevalence of smokers over the age of ten years. In order to provide the Indonesian government with more advice about the creation of tobacco control laws, it is critical to conduct a thorough analysis of smoking behaviour and its effects on the standard of living for families receiving social assistance. (Nurhasana *et al*., 2023).

Nicotine, a highly addictive chemical included in tobacco, is the main reason smoking is addicting. Nicotine affects the brain by increasing dopamine levels and stimulating the adrenal glands to release the hormone epinephrine, sometimes known as adrenaline. Emphysema, chronic bronchitis, and lung cancer can all result from tobacco use. It raises the risk of heart disease, which raises the possibility of a heart attack or stroke (RSCC Home, 2014)

A number of factors influence and determine tobacco use: (1) individual factors (perceptions, self-image, peers); (2) social factors (societal norms); (3) environmental factors (advertising, economy); and (4) cultural factors (traditional tobacco uses, acculturation, and the tobacco industry's historical background in different communities). Each of these elements contributes to tobacco use behaviour and patterns, as does their intricate interaction, which is challenging to analyse and quantify (CDC, 2023). This study aimed at evaluating the awareness of smoking cessation among active and passive smokers in Surabaya.

# RESEARCH METHOD

## Research design

This research was conducted in Surabaya, especially in Mulyorejo District. The targeted area was public spaces such as restaurants, cafes, bus or train stations. Data collection was done using convenient sampling. The questionnaire was distributed from 28 September 2023 until 3 October 2023. The questionnaire was created based on based several

references, such as Hendricks, P. S. (2011), Abu Shomar (2014) and Campo (2022).

## Criteria inclusion

The inclusion criteria were males and females who live in Surabaya, age 18 years old and above, who were active smokers or passive smokers who have family members or friends who smoke. The exclusion criteria were non-smokers, ex-smokers, and passive smokers who did not have family members or friends who smoke. The total number of respondents was 106.

## Instrument

The questionnaire was distributed through an online form to any active and passive smokers who were willing to volunteer to answer. The questionnaire was divided into two types, one for active smokers and the other for passive smokers. The questionnaire for active smokers consisted of 6 sections with 31 questions, while four sections with 20 questions were included in the passive smokers questionnaire regarding second-hand smoke exposure. Informed consent was taken before they proceeded to answer the first section of the questionnaire. Respondents were also informed that the confidentiality of their data would be guaranteed.

For smokers, researchers designed a survey with questions addressing key metrics: awareness of smoking risks, willingness to quit smoking and the awareness of existing of smoking cessation therapy. Respondents rated their awareness on a scale from 1 (very disagree) to 5 (very agree), willingness to quit noted as a binary yes or no, and the awareness of existing of smoking cessation therapy was similarly recorded.

As for non-smokers, researchers designed a survey with questions addressing key metrics: awareness of risks of smoking for passive smokers and the awareness of existing of smoking cessation therapy. Respondents rated their awareness on a scale from 1 (very disagree) to 5 (very agree) and the awareness of existing smoking cessation therapy noted as a binary yes or no.

To categorize awareness as "Good" or "Poor" based on a 1 to 5 scoring scale where lower numbers indicate poorer awareness of smoking. Poor awareness scores between 1 and 3 while good awareness scores between 4 and 5. The data were analyzed descriptively using IBM SPSS software version 26.0.

# RESULTS AND DISCUSSION

## *Socio-demographic data*

This research study involved a total number of 106 participants. Overall, for smokers smoking, 95.10% (n=58) of males and 4.90% (n=3) of females were involved and for non-smoking, 42.20% (n=19) of males and 57.80% (n=26) of females were involved. The majority of participants worked in the private sector (45.90%, n=28) for smoking and 44.40% (n=20) for non-smoking. Salary per month of smoking respondents was mostly IDR3,000,000-5,000,000 (31.10%; n=19) and <IDR3,000,000 is 42.20%; (n=19) for non-smoking. Last education for smoking respondents was mostly in

high school 65.60% (n=40) and 51.10% (n=23) in undergraduate for non-smoking. The respondents' socio-demographic features are summarized in Table 1.

Table 1. Socio-demographics of respondents

| Characteristics | | Classification | |
| | | Smokers (n=61) | Non-smoker (n=45) |
| | | n (%) | n (%) |
|---|---|---|---|
| Gender | Male (n=77) | 58 (95.10) | 19 (42.20) |
| | Female (n=29) | 3 (4.90) | 26 (57.80) |
| Occupations | Government Sector | 1 (1.60) | 0 (0.0) |
| | Private Sector | 28 (45.90) | 20 (44.40) |
| | Business | 12 (19.70) | 5 (11.10) |
| | Not working | 13 (21.30) | 8 (17.80) |
| | Others | 7 (11.50) | 12 (26.70) |
| Salary per month (millions IDR) | < 3 | 16 (26.20) | 19 (42.20) |
| | 3-5 | 19 (31.10) | 11 (24.40) |
| | 5-7 | 1 (1.60) | 0 (0.0) |
| | 7-10 | 1 (1.60) | 0 (0.0) |
| | Others | 24 (39.30) | 15 (33.30) |
| Latest education | Middle school | 4 (6.60) | 2 (4.40) |
| | High school | 40 (65.60) | 20 (44.40) |
| | Undergraduate | 15 (24.60) | 23 (51.10) |
| | Others | 2 (3.30) | 0 (0.0) |

***Smoking behaviors of respondents***

Based on Table 2, all of active smokers have been smoking for more than a year, indicating a long-term habit. A significant portion of active smokers (37.7%; n=23) smoke more than 10 cigarettes a day, followed by those who smoke 1-5 cigarettes (34.4%; n=21) and 6-10 cigarettes (27.9%; n=17). This distribution shows a considerable number of heavy smokers within the group. More than half of the active smokers (57.4%; n=35) have attempted to quit smoking before, which suggests an awareness of the health risks and a willingness to change, though cessation efforts have not been fully successful for many.

As for passive smokers, a large majority of passive smokers (88.9%; n= 40) have at least one family member who smokes, highlighting the prevalence of smoking within their immediate environment. Most family members of passive smokers (75.6%; n= 34) have been smoking for more than a year, indicating long-term exposure for passive smokers. Among family members of passive smokers, a notable percentage smoke more than 10 cigarettes daily (26.7%; n=12), with others smoking 1-5 (20.0%; n=9) or 6-10 cigarettes (20.0%; n=9). However, a significant portion of passive smokers (33.3%; n=15) are unaware of the exact number. A considerable number of passive smokers (37.8%; n=17) report experiencing health problems related to the respiratory system, underscoring the health impact of secondhand smoke exposure. A high percentage of passive smokers (71.1%; n=32) have taken actions to prevent smokers from approaching them, indicating proactive behavior to minimize exposure. Most passive smokers (88.9%; n=40) would refuse a cigarette if offered by a friend, while a small minority (4.4%; n=2)

would try it, showing a general resistance to taking up smoking.

In our study, we conducted a survey to assess the level of awareness about smoking cessation among participants. The findings revealed that a significant proportion of participants exhibited poor awareness about smoking cessation. Many respondents were unaware of evidence-based methods for quitting, such as nicotine replacement therapy (NRT), counselling services, and the role of healthcare professionals in supporting cessation efforts. Similarly, a study by Sivasubramanian *et al*. (2023), showed that adults' knowledge of the negative effects of passive smoking was either average or insufficient. No sample had scored well enough to indicate acceptable awareness.

Table 2. Smoking behaviors of respondents (n=106)

| Behaviors | | n (%) |
|---|---|---|
| **Active Smokers (n=61)** | | |
| How long have you been smoking? | More than 1 year | 61 (100) |
| How many cigarettes do you smoke a day? | 1-5 | 21 (34.4) |
| | 6-10 | 17 (27.9) |
| | >10 | 23 (37.7) |
| Have you ever tried to quit smoking before? | Yes | 35 (57.4) |
| | No | 26 (42.6) |
| **Passive Smokers (n=45)** | | |
| Do you have a family member who smokes? | Yes | 40 (88.9) |
| | No | 5 (11.1) |
| How long have they been smoking? | > 6 months | 1 (2.2) |
| | > 1 year | 34 (75.6) |
| | Don't know | 10 (22.2) |
| How many cigarettes do they smoke in a day? | 1-5 | 9 (20.0) |
| | 6-10 | 9 (20.0) |
| | >10 | 12 (26.7) |
| | Don't know | 15 (33.3) |
| Have you ever experienced health problems related to the respiratory system? | Yes | 17 (37.8) |
| | No | 28 (62.2) |
| Have you ever prevented smokers from approaching you? | Yes | 32 (71.1) |
| | No | 13 (28.9) |
| If your friend gave you a cigarette, would you try it? | Yes | 2 (4.4) |
| | No | 40 (88.9) |
| | Not sure | 3 (6.7) |

***Awareness of smoking cessation***

The awareness of smoking risks indicates that the rate of smoking cessation was relatively high; among those who responded with enhanced awareness were 88.5% (n=54) males and 4.9% (n=3) women. The last education with the highest result of category awareness was high school, with 39 people, followed by 15 people from undergraduate.

In Table 3, we can infer from the table that the highest gender with good category awareness for non-smoking people is women with 57.8%; (n=26) respondents then, followed by men with 42.2% (n=29) respondents. The table shows the non-smokers, people

with undergraduate as their last education, have the highest good category awareness with 51.1%; (n=23), followed by people with high school as their last education with 44.4%; (n=20) respondents. From the occupation variable, we can see that the job with the highest good category awareness was in the private sector with 44.4% (n=20) respondents.

Table 3. Demographic variables against category awareness

| Characteristics | | Smokers (n=61) | | Non-smoker (n=45) | |
|---|---|---|---|---|---|
| | | Category awareness= n (%) | | | |
| | | Poor | Good | Poor | Good |
| Gender | Male | 4 (6.6) | 54 (88.5) | 0 (0.0) | 19 (42.2) |
| | Female | 0 (0.0) | 3 (4.9) | 0 (0.0) | 26 (57.8) |
| Latest education | Middle school | 1 (1.6) | 3 (4.9) | 0 (0.0) | 2 (4.4) |
| | High school | 1 (1.6) | 39 (63.9) | 0 (0.0) | 20 (44.4) |
| | Undergraduate | 0 (0.0) | 15 (24.6) | 0 (0.0) | 23 (51.1) |
| | Others | 2 (3.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Occupation | Government Sector | 0 (0.0) | 1 (1.6) | 0 (0.0) | 0 (0.0) |
| | Private Sector | 2 (3.3) | 26 (42.6) | 0 (0.0) | 20 (44.4) |
| | Business | 4 (6.6) | 8 (13.1) | 0 (0.0) | 5 (11.1) |
| | Not working | 0 (0.0) | 13 (21.3) | 0 (0.0) | 8 (17.8) |
| | Others | 1 (1.6) | 6 (9.8) | 0 (0.0) | 12 (26.7) |

Due to the fact that smoking is more common in less educated people than in highly educated people, it has a significant impact on gaps in health. In order to improve public health and address inequality in health among various population groups, quitting smoking is essential. Previous research suggests a possible link between education and quitting smoking. These variations in smoking cessation may be caused by factors such as a greater chance of relapse, decreased motivation, and a lack of social support (Ruokolainen, 2021). In our study, most of them know and are aware of the danger of smoking but still do not want to quit or are not convinced about quitting yet.

Furthermore, a significant majority of the participants, 77%; (n=47), have not used Nicotine Replacement Therapy (NRT) for smoking cessation. Nicotine replacement therapy (NRT) aims to reduce motivation to consume tobacco and the physiological and psychomotor withdrawal symptoms through the delivery of nicotine. The evidence that NRT helps to stop smoking is now well accepted, and many clinical guidelines recommend NRT as a first-line treatment for people seeking pharmacological help to stop smoking (Wadgave & Nagesh, 2016). Similarly, a majority, 98.4%; (n=60), have not participated in government smoking cessation programs such as the QUITLINE

program. The Ministry of Health of Indonesia is also trying to expand access to services for those who have already become smokers to stop smoking by providing counselling services for quitting smoking in health service facilities, both in primary care at community health centers, in independent clinics, and even hospitals as referral facilities (Kementerian Kesehatan RI, 2018)

Table 4. Attitude of smoking cessation therapy among smokers (n=61)

| Questions | Answers | n (%) |
|---|---|---|
| Have you ever used any type of Nicotine Replacement Therapy (NRT) when quitting smoking? | Yes | 14 (23.0) |
| | No | 47 (77.0) |
| Have you ever heard of government program to stop smoking such as QUITLINE, a counseling program under the Ministry of Health? | Yes | 1 (1.6) |
| | No | 60 (98.4) |
| What method or strategy will you choose if you ever think of quitting smoking? | NRT | 6 (9.8) |
| | QUITLINE | 2 (3.3) |
| | None | 53 (86.9) |
| What challenges did you face when trying to quit smoking? | None | 25 (41) |
| | Not all | 33 (54.1) |
| | All | 3 (4.9) |

Table 5 provides insights into the familiarity with and perception of Nicotine Replacement Therapy (NRT) among the surveyed population. Table 5 shows that 34.4% (n=21) of the smoking respondents reported having heard about NRT, whereas the majority, 65.6%; (n=40), had not. However, a significant proportion (63.9%; n=39) believed that NRT should be utilized as one of the strategies for smoking cessation, indicating a positive attitude toward this form of therapy. However, a large number of participants (55.7%; n=34) chose not all regarding the different types of NRT available, indicating the need for increased education and awareness campaigns about the various forms of NRT.

After that, among those who attempted to quit smoking, the majority (86.9%; n=53) did not use any specific method or strategy, indicating potential gaps in support systems for smoking cessation. Interestingly, a considerable portion of the participants (54.1%; n=33), faced the challenge of peer influence in their smoking habits, highlighting the importance of social environments in smoking cessation efforts. According to Nurhasana *et al*., (2023), low-income families in East Java still put cigarettes on their daily shopping lists. Over half of the grocery shopping budget goes toward cigarettes. Even for low-income families, the cost of cigarettes is still generally reasonable in Indonesia. Furthermore, such families found it challenging to stop smoking due to the addictive nature of smoking. It made their household financial problems worse.

The data also indicates that a substantial proportion of participants, 73.8% (n=45), were unaware of any mental health changes associated with quitting smoking, indicating a potential lack of awareness regarding the psychological impacts of smoking

cessation. Another study Ho *et al.*, (2019), also found that smoking-related co-morbidities worsened anxiety, stress, and depression, creating a vicious cycle. It also had an impact on the success of smoking cessation. Moreover, a significant number of respondents 52.5% (n=32) were unsure about their plans to quit smoking in the next six months, which suggests a need for targeted interventions to enhance motivation for smoking cessation. Only a small proportion of smokers and past smokers sought help for smoking cessation, which is also reported by other studies (Asharani, 2020).

The majority of participants, 63.9% (n=39), perceived the cost of cigarettes in Indonesia as expensive, and over half, 57.4% (n=35), spent between 50,000 to 150,000 Indonesian Rupiah on cigarettes each week. These findings shed light on the perceptions and behaviours related to smoking cessation among this Indonesian population, emphasising the need for comprehensive tobacco control efforts that address both psychological and socioeconomic factors. Although the cost of cigarettes to them is expensive, they can buy it in small stalls (per stick) with relatively very cheap cigarette prices (Nurhasana *et al.*, 2023).

Lastly, according to planned behaviour theory, the objective of stopping smoking is also essential to successfully quitting. Both behavioural therapy and medicines are effective in helping people quit smoking, but the combination of medication and counselling yields better results than either strategy used alone (US Public Health Service Office of the Surgeon General, 2020).

Table 5. Knowledge and opinion about smoking cessation therapy (n=106)

| Questions | Answers | Smokers (n=61) | Non-smoker (n=45) |
|---|---|---|---|
| | | n (%) | |
| Have you ever heard of Nicotine Replacement Therapy (NRT)? | Yes | 21 (34.4) | 18 (40) |
| | No | 40 (65.6) | 27 (60) |
| In your opinion, should Nicotine Replacement Therapy (NRT) be used as an effort to stop smoking? | Yes | 39 (63.9) | 37 (82.2) |
| | No | 22 (36.1) | 8 (17.8) |
| Do you know the types of Nicotine Replacement Therapy (NRT)? | Didn't know | 26 (42.6) | 15 (33.3) |
| | Not all | 34 (55.7) | 29 (64.4) |
| | All | 1 (1.6) | 1 (2.2) |

## CONCLUSION

This study showed that many respondents still lack knowledge about smoking cessation aids such as NRT or QUITLINE. The awareness of smoking cessation among the respondents was high. However, some of them were not convinced yet to stop smoking because their intention to quit smoking was low. It would be better if the Indonesian government emphasized therapy and counselling because the most successful way for a smoker to quit is for them to decide to stop voluntarily, and this should be the goal of any preparation or practice they undertake to stop.

## APPRECIATION

## REFERENCES

Abu Shomar R, Lubbad I, El Ansari W. Al-Khatib, I. and Alharazin H. (2014). 'Smoking, Awareness of Smoking-associated Health Risks, and Knowledge of National Tobacco Legislation in Gaza, Palestine.', Central European Journal of Public Health, 22(2), pp. 80-89. doi: 10.21101/cejph.a4005.

Asharani, P.V, Ling Seet, V.A, Abdin, E., Siva Kumar, F.D., Wang, P., Roystonn, K., Lee, Y.Y., Cetty, L., Teh, W.L., Verma, S, Mok, Y.M., Fung, D.S.S., Chong, S.A., and Subramaniam, M. (2020). 'Smoking and Mental Illness: Prevalence, Patterns and Correlates of Smoking and Smoking Cessation among Psychiatric Patients.', International Journal of Environ Research and Public Health, 17(15), pp. 5571. doi: 10.3390/ijerph17155571.

Campo, L., Lumia, S., and Fustinoni, S. (2022). 'Assessing Smoking Habits, Attitudes, Knowledge, and Needs among University Students at the University of Milan, Italy.', International journal of environmental research and public health, 19(19), pp. 12527. doi: 10.3390/ijerph191912527.

CDC. (2023). 'Centers for Disease Control and Prevention', viewed 2 November 2023, Youth and tobacco use. Centers for Disease Control and Prevention. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm.

BPS of East Java. East Java Province Central Statistics Agency. (2018). Poverty Profile in East Java

Faisal, D. R., Putra, O., and Nadira, N. A. (2022). 'Factors associated with smoking behaviour among Indonesian students: Analysis of the 2019 Global Youth Tobacco Survey.', Public Health and Preventive Medicine Archive, 10(2), pp. 140–149.doi: 10.53638/phpma.2022.v10.i2.p05.

Health Research and Development Agency. (2018). 'National Report on Basic Health Research 2018', In Ministry of Health.

Hendricks, P. S., Wood, S. B., Baker, M. R., Delucchi, K. L., and Hall, S. M. (2011). 'The Smoking Abstinence Questionnaire: measurement of smokers' abstinence-related expectancies', Addiction (Abingdon, England), 106(4), pp. 716–728. doi: 10.1111/j.1360-0443.2010.03338.

Ho, C.S., Tan, E.L, Ho, R.C., and Chiu, M.Y. (2019) 'Relationship of anxiety and depression with

respiratory symptoms: Comparison between depressed and non-depressed smokers in Singapore.', International Journal of Environ Research and Public Health,16(1), pp. 163.doi: 10.3390/ijerph16010163.

Kementerian Kesehatan RI. (2018) 'P2ptm kemenkes.', https://p2ptm.kemkes.go.id/informasi-p2ptm/ingin-berhenti-merokok-hubungi-layanan-konseling-bebas-biaya-0-800-177-6565

Sivasubramanian, N., Mahalakshmi, B., Patel, S.A., Ramalakshmi, G. (2023).'Awareness on passive smoking among Indian adults.', Bioinformation. 19(1),pp. 10-13. doi: 10.6026/97320630019010.

Nurhasana, R., Ratih, S. P., and Gayatri, R. W. (2023). 'Smoking Behaviour and Its Impact on the Quality of Life of the Beneficiary Families of Social Assistance Funds in East Java, Indonesia.', Journal of Strategic and Global Studies, 6(1),pp. 1-14.doi: 10.7454/jsgs.v6i1.1101.

Riskesdas. (2018) 'Badan Penelitian dan Pengembangan Kesehatan Kementerian Republik Indonesia tahun 2018.', https://kesmas.kemkes.go.id/assets/upload/dir_5 19d41d8cd98f00/files/Hasil-riskesdas-2018_1274.pdf

RSCC Home. (2014) 'Tobacco Awareness and Prevention.', https://www.roanestate.edu/?11647-Tobacco-Awareness-and-Prevention.

Ruokolainen, O., Härkänen, T., Lahti, J., Haukkala A,Heliövaara M, and Rahkonen, O. (2021). 'Association between educational level and smoking cessation in an 11- year follow-up study of a national health survey.', Scandinavian Journal of Public Health, 49(8), pp. 951-960. doi: 10.1177/1403494821993721.

US Public Health Service Office of the Surgeon General. (2020) 'National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. Smoking Cessation: A Report of the Surgeon General: Chapter 6 Interventions for Smoking Cessation and Treatments for Nicotine Dependence.', Washington (DC): US Department of Health and Human Services. https://www.ncbi.nlm.nih.gov/books/NBK5555 96/.

Wadgave, U., and Nagesh, L. (2016). 'Nicotine Replacement Therapy: An Overview', International Journal of Health Science, 10(3),pp. 425-35.

WHO. (2023) 'Tobacco.', https://www.who.int/newsroom/factsheets/detail /tobaco.

162