Prevalence Of Smoking and its Associated Factors Among Indonesian Women: A Simple Literature Review and Alternative Management

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ABSTRACT

Aims: To review previous electronic literature available on the internet regarding epidemiology of smoking among Indonesian women, and its associated factors with seeking for alternative management available in the internet.

Study design: A simple cross sectional study by systematically review of the electronic literatures

Place and Duration of Study: All steps in ths study conducted in the Faculty of Medicine Universitas Kristen Indonesia, Jakarta Indonesia between January-July 2022.

Methodology: This simple literature study held by reviewing the electronic literatures regarding the topics. Data mining made available from popular scientific search engine named PubMed® and Google scholar™. Phrases of "Female Smokers in Indonesia pdf", "Risk Factors for Female Smokers in Indonesia pdf", “Prevalence smoking in Indonesia” being the keyword in searching which combined in bahasa and or English. The data collected will be entered systematically with tabulation and presentation of the map of Indonesia. Out of 106 articles gained initially, then through several stages of screening, the number reduced step by step until the remaining 15 articles to be analyzed further. All important data form all articles are presented in tabular form and then followed by an attempt to describe geographical location where the study conducted This is done by placing dots and related numbers in modified Indonesia map.

Results: the prevalence and characteristics of female smokers in Indonesia in time period of 2016 – 2022 were achieved in 15 articles. Methodologically, most of the study using a simple, cross sectional method (60%) presented in a table.

Conclusion: This literature study discusses the prevalence and risk factors of female smokers in Indonesia. Smoking is still a common health problem that causes death on a large scale in the world, especially in the vulnerable group like women. Many internal and social factor affect this practice among women. By teaching them properly about the future risk of smoking and support them actively to quit smoking; this approach will save her future and her descendant. Yoga and or other alternative approach might be an alternative for those who want to quit smoking.

Keywords: spous, addiction, stigma, discrimination, cancer, support, yoga, meditation, complimentary

1. INTRODUCTION

Smoking is the act of inhaling and exhaling the gas of burning plant material, most commonly related with tobacco in the form of a cigarette, cigar, or pipe and sometime also with substances that are prohibited in some countries such as marijuana and hashish [1]. Smoking is associated with many health problems, directly or indirectly depend on its chronicity of consumption, and what can be called the most severe effect is respiratory cancer which risk among smoker is 2 to 10 times higher than a non-smoking individual [2]. Smoking also responsible for the occurrence of numerous non communicable diseases, serious long-term disability and sudden death, globally [1,2]. Smoking behavior involves not only a biological addiction, but also psycho-cognitive components. This runs from smoking

initiation, through to maintaining, attempts at quitting, and relapse; especially if these factors related to certain gender, *e.g.*, female.

Epidemiologically, Globally, adult smoking prevalence in 2020 was 32.6% (32.2% to 33.1%) and 6.5% (6.3% to 6.7%) among men and women, respectively. 1.18 (0.94 to 1.47) billion people regularly smoke tobacco, causing 7.0 (2.0 to 11.2) million deaths in 2020 [3].

According to previous study by Wang *et al* [4], the high prevalence of smoking is strongly related to low socioeconomic and education level, unemployment and poor marital status [4]. According to Tsai *et al* [5], regarding smoking maintenance behaviors, male smokers consumed significantly more cigarettes than women (18 vs. 11 cigarettes per day), although the time from waking to the first cigarette of the day was almost alike for both sexes. The triggers of smoking behavior between men and women were very different; men craved cigarettes in social gatherings and with friends, whereas women craved them when anxious, angry, or frustrated [6]. Men were more presumably to use tobacco in socially relevant situations while for women in emotionally pertinent ones [5,6].

Smoking can change the smoker's body, *e.g.*, histologically, anatomically and psychologically [5-7]. Cigarette smoke can modify the cell cycle [2]. Smoking harms the cells lining the blood vessels and heart and can increase the risk of clots that cause heart attacks. Smoking can also contribute to an abdominal aortic aneurysm or any Other blood vessels [7,8]. Carcinogens present in the smoke of tobacco products have an important role in altering the genome of immune cells, whether by implanting chemical adducts in the cellular DNA or by inducing irreversible genetic damage. there is scientific evidence regarding 98 of the over 5000 chemicals in tobacco smoke are known carcinogens that can act on cancer genes such as K-RAS and p53 [2]. Through various mechanisms these compounds can activate molecules involved in the cell cycle, such as cyclins, and molecules involved in apoptosis and autophagy, such as Beclin-1 or LC3B [1,2].

Nowadays, more than 20 percent of Indonesian youth's smoke [7,8]. Thanks to the low price of cigarettes and other tobacco products, the country boasts one of the world's highest smoking rates among youths and adults. Tobacco products are also readily available at *warung* (kiosks) on every corner, whether in megacities or villages [7].

According to data, the government derived get a lot of state income from the cigarette excise tax which increases from year to year [7]. From 2015 to 2020, the government administration raised tobacco excise by around 75% [9]. In January 2021, a further 12.5% rise was imposed. There were three reasons for this policy, namely to reduce consumption, regulate the industry and boost government revenue [10]. In 2020, the estimated government revenue from tobacco excise alone was Rp. 173 trillion. The cigarette industry is still one of the motors for the movement of the national economy; some 3.4 million workers are involved in all aspects of the tobacco industry from growing to retailing. The multiplier effect means that 13.6 million Indonesians, most of whom are women and children, are estimated to be dependent for their support upon tobacco [8].

Although comparatively few women are smokers, they are a major source of labor in the manufacture of cigarettes. Traditionally tobacco production has been considered to be women's work [11]. In the Jember area in the Besuki Residency in Java, some 50% of Indonesia's total export crop is produced, and most of the labor-intensive work in the fields and factories is done by females [8]. Rates of pay are poor and insufficient for the minimum daily physical expenditure of workers [8,11].

The social environment has a vital role in shaping smoking behavior in women [12]. Among female tobacco users, as well as male, cigarette was the most commonly used tobacco product [13]. Many studies suggested that women seriously more prone to smoking-related morbidity and mortality. For this reason, it is interesting to review previous electronic literature available on the internet regarding epidemiology of smoking among Indonesian women, and its associated factors.

2. MATERIAL AND METHODS

This study is a simple literature study by reviewing the electronic literatures regarding prevalence of female smokers and its association factors in Indonesia. Data sources are taken from popular scientific search engine named PubMed® and Google scholar™. The phrases used in this study were "Female Smokers in Indonesia pdf", "Risk Factors for Female Smokers in Indonesia pdf", “Prevalence smoking in Indonesia”. The keywords used are prevalence, risk factors, smokers, and women. A combination of search terms is used in Indonesian and English. Article retrieval uses purposive sampling which will be selected according to keywords, reading the title, abstract and content of the article. The collection until the research work is carried out in January 2022 to July 2022. The data collected will be entered systematically with tabulation and presentation of the map of Indonesia.

The variables in this study were age, internal and external risk factors, and the occupation of female smokers. Articles obtained were screened manually. The total number of articles obtained was 106 research articles and then became 82 articles after going through the exclusion duplication screening and then re-screened based on the appropriate research titles and abstracts and 41 articles were obtained. Then there were 26 articles that did not meet the inclusion and exclusion criteria of the study. and the final total number of eligible articles that have passed all stages of 15 research articles Related matters if needed will also be entered into the table.

3. RESULTS AND DISCUSSION

The data obtained are the results of searches through PubMed® and Google Scholar using keywords obtained as many as 106 research articles. Research articles that have been collected are selected manually and articles that have passed the selection stage are 14 articles. All important data form all articles are presented in tabular form and then followed by an attempt to describe geographical location where the study conducted This is done by placing dots and related numbers in Indonesia map.

Table 1 contains the prevalence and characteristics of female smokers in Indonesia in time period of 2016 – 2022. Methodologically, most of the study using a simple, cross sectional method (60%). An interesting study conducted by Karini *et al* [26] are using the

Table 1: Summary of scientific articles found in several regions of Indonesia regarding female smokers available in the internet

No.	Author (year of publication)	Design of study	Location	N	Findings	Database
1.	Hardesty J *et al* (2019)[14]	Descriptive research, using survey with convenience sampling that was utilized in two malls.	Surabaya, East Java	128 adults female daily smokers (age 18-24)	- Female daily smokers in Surabaya, Indonesia, smoked five to six more cigarettes per day than in past national surveys - Average number 13,8 cigarettes/day, consist of 7,3% white machine-rolled cigarettes/day, 4,2% kreteks/day and 2,4% roll-your-own cigarettes/day - 37% sample smoked their first cigarettes within 5 minute of waking up and 76% within 30 min of waking. - >53% had a heavy smoking index indicating moderate or high addiction - 51% did not attempt to quit smoking in the previous 12 months - 55% planned to quit beyond six months or not all	Pubmed https://doi.org/10.1016/j.puhe.2019.03.007
2.	Pingak M, Miller C (2019)[15]	Cross sectional and medical student based	Kupang, East Nusa tenggara	115 female students	- 65,3% reported a very low level of parental income (below provincial minimum wage) - Among the smoking population,16,2% identified as a daily smoker, 9,7% occasional smokers. - 24.4% smokers smoked factory-made cigarettes, 12.8% smoked cigar, pipe or any tobacco products - 16.7% ex-smokers	Pubmed https://doi.org/10.31557/APJCP.2019.20.6.1709

3.	Tjahajawati S, Rafisa A, Lestari E (2021)[16]	Analytical study using a cross-sectional approach	Bandung, West Java	26 female smokers and 37 non smokers (age 18-64)	Most female smokers (76.9%) identified as overweight or obese. 80.8% received education only up to the primary level and 76.9% were housewives. The mean calcium level of female smokers (1.16 mmol/L) lower than non-smokers (1.8 mmol/L).	Pubmed https://doi.org/10.1155/2021/2221112
4.	Fauzi R, Areesantichai C (2020)[17]	Descriptive research, using survey with multistage cluster random sample	Jakarta	1.318 public high school students,62.8 % (n=828) female students	Cigarettes using: - 8.5% current users - 13.8% experimental users - 77.7% non-users Water pipe using: - 3.3% current users - 10.6% experimental users - 86.1% non-users Water pipe use was significantly associated with family use, friend use, and availability.	Pubmed https://doi.org/10.1515/ijamh-2020-0084

5.	Widiyaningsih D, Suharyanta D (2020)[18]	Descriptive quantitative using total sampling technique	Dieng	113 elderly women (age >60)	Distribution of respondent's characteristics by occupation: - 7.1% elderly work as housewives - 16.8% work as laborers - 22.1% work as farmers - 29.2% work as traders - 24.8% work as entrepreneurs there is a significant influence between geography and smoking behavior in elderly women((p) < 0,05	Google Scholar https://doi.org/10.29241/jmk.v6i2.539
6.	Muliyana D, M.Thaha I (2016)[19]	Cross sectional college student based	Makassar	192/378 female college students	Most respondents at the Faculty of Medicine as much as 12% of the total female respondents. Reasons to start smoking: - Try it out/follow a friend (74.1%) - Following the trend/fashion (2,5%) - Stress escape (19.6%) - Symbol of masculinity/maturity (3.8%)	Google Scholar https://doi.org/10.30597/mkmi.v9i2.446
7.	Mirnawati M,	Cross sectional	Semarang	10/30 teenage		

	Nurfitriani N, Zulfiarini F *et al* (2018)[20]			girls	Reasons to start smoking: - Invited by friends (20%) - Friends Influence (17%) - Imitating Parents or Family - Curious to try (10%) - Effect of Cigarette Advertising	Google Scholar doi:https://doi.org/10.15294/higeia.v2i3.26761
8.	Astuti S, Susanti A, Elista R (2016)[21]	Cross sectional using total sampling technique	Sumedang	30 pregnant women in the 1st, 2nd, and 3rd trimesters	Pregnant women who are exposed cigarette at gestational age 13-28 weeks by 56.25%. Exposure amount >10 cigarettes/day by 83.33%	Google Scholar https://doi.org/10.24198/jsk.v2i1.10413
9.	Ariani D, Mulyono S, Widyatuti (2019)[22]	Cross sectional using random sampling	Karawang	115/356 female school children	Factors associated with smoking behavior in children: - First age of smoking - Trends and want to be cool - Family smokers	Pubmed https://doi.org/10.1080/24694193.2019.1578436
10.	Herawati L,	Survey based research	Jayapura	10/23 female	69,23 % of respondents have smoking parents.	

	Budiman J, Haryono W *et al* (2017)[23]	in three different schools		school children (age 11-14)	There are another family member(25,64%) who lives with the respondent who smokes.	Pubmed https://doi.org/10.1007/s10900-016-0232-4
11.	Devi R, Fauzan,Nur R *et al*(2021)[24]	Cross sectional	Palu	80 female smokers	43.76% of respondents are heavy smokers and have poor knowledge about smoking and 37.5% have worked 42.5% of respondents are heavy smokers and have peers who are also smokers.	Google Scholar https://medic.upm.edu.my/upload/dokumen/20211229081041 06_MJMHS_0075.pdf
12.	Akbar R,Istiqomah A,Afriandi I (2019)[25]	Cross sectional	Sumedang	99 females smokers	Respondents admitted to smoking as - an experiment (10.10%), - as recreational (16.17%), - situational (34.34%), - intensive (34.34%) and - compulsive (5.05%)	Google Scholar https://doi.org/10.15850/amj.v6n4.1763
13.	Karini A,	Phenomenological	Bengkulu	15 female	The start of smoking cigarette	

	Padmawati S (2018)[26]	research with snowball sampling		smokers		Google Scholar https://doi.org/10.22146/bkm.26942
14.	Riyandi G, Wilyono J, Candrawati E (2017)[27]	Cross sectional	Malang	30 female smokers	There is a relationship between the social environment and smoking behavior in women (p-value = 0,003< α (0,05)	Google Scholar https://doi.org/10.33366/nn.v2i2.536

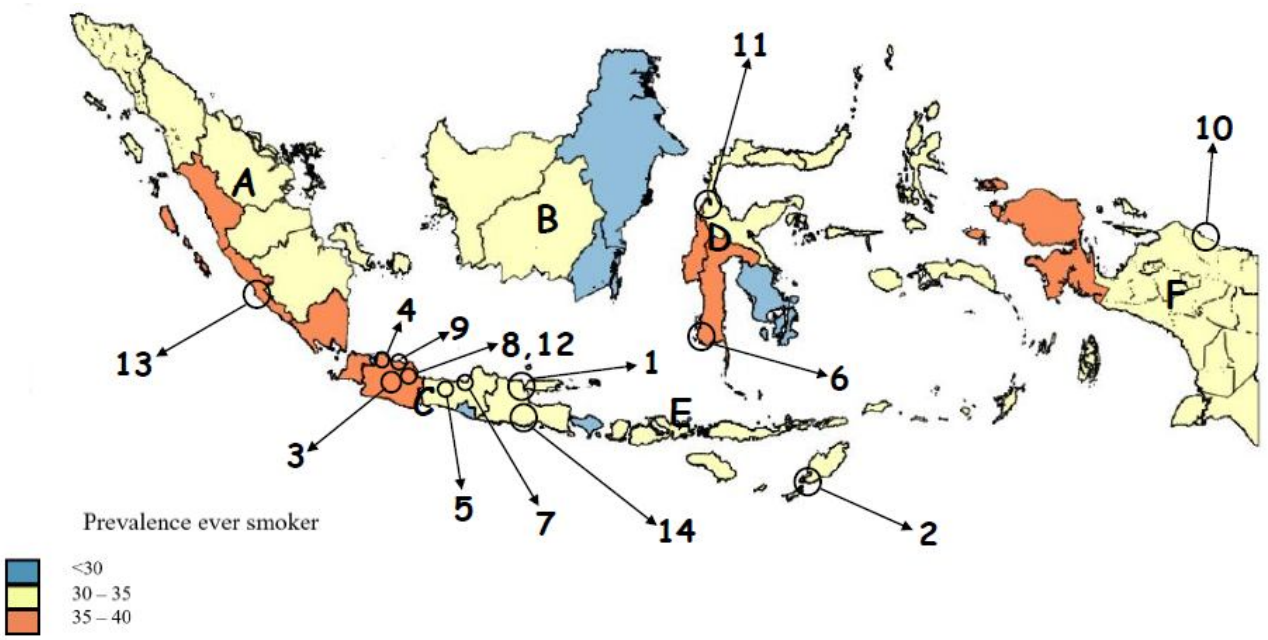

Figure 2: An Indonesian Map of smoking. Number showing the location of published research lsted in the previous table regarding the prevalence of smoking in women with data derived from published electronic data obtained from internet sources. the image is a modification from the source of SUSENAS 2019. there is a modification where we divide several islands in Indonesia by assigning a letter to each island. (A) Sumatra Island, (B) Kalimantan Island, (C) Java Island (D) Sulawesi Island, (E) Nusa Tenggara Islands and finally the easternmost island in Indonesia (F) Papua Island. in addition there are circles and arrows that indicate the location of the mapping based on Table 1.

Phenomenological research method which examined 15 female smokers with snowball sampling.

Hardesty *et al* [14] conducted study in Surabaya involving 128 adult female smoker aged 18-24. The result is the average number of cigarettes consumed daily (13.8 cigarette /day) is more than the national average consumption; with the type of cigarettes most consumed is in the form made by factory machines. In their daily life, all respondents immediately start smoking immediately after waking up, 57% showed sign of high tobacco addiction.

Pingak *et al* [15] showed us through their study among 115 female smoker students in Kupang that most of their respondent come from low level of parental income, less than the minimum provincial wage. Among the smoking population, 16.2% considered as daily smoker with 24.4% smoked factory made-cigarettes,

While Tjahajawati *et al* [16] in Bandung, east Java found out that from 26 female smoker vs. 37 non-smokers aged 18-64 years old, that most of female smokers identified as overweight or obese, 80.8% have a low level educational background and 76.9% were married. Female smokers have a lower calcium level compares to the non-smoking ones.

Fauzi *et al* [17] in Jakarta conducted survey in 1318 public high school students which 62.8% were female. The result is 77.7% do not smoke cigarettes and 86.1% do not use waterpipes; the results were 77.7% did not smoke cigarettes and 86.1% did not use a waterpipes; where the use of tools such as water pipes is always used by friends or relatives first, as well as their availability.

Widiyaningsih [18] conducted a descriptive quantitative study regarding 113 elderly women with 4 out of each 6 respondent age over 60 years old were active smoker and this practice affected by the topo-geographical condition and socio-cultural practice among local people.

Muliyana *et al* [19] in Makassar found out that 15,2% out of 192 female respondents have history of smoking. Most of respondents who are active smokers have negative support from family or peers.

Mirnawati *et al* [20] in Semarang studied teenage population where 10 out of total 30 respondents were female. The results of his survey-based research did not find adolescent girls who smoked.

An interesting study conducted by Astuti *et al* [21] in Sumedang, west Java where she and her colleagues surveyed 30 pregnant women from 1st-3rd semester and their exposure to cigarettes. Exposure to cigarette smoke for pregnant women who were the respondents of this study were came from husbands who smoke in the house and the quantity of daily exposure was equal to ≥ 10 cigarettes and lasts every day.

Ariani *et al* [22] in Karawang conducted an interesting cross sectional study regarding a relationship between age risk factors for the first-time smoking, family of smokers, and following trends and wanting to be cool with smoking behavior of primary school-age children.

Herawati *et al* [23] in Jayapura- Papua scrutinized grade 7 students from 3 local junior high school, aged 11–14 years. from 78 respondents, 59 % were female and 41 % were male. Respondents who smoke were 23 respondents (29.3 %), and out of that percentage, female smoker were 43.48%. Among 29.3 % of respondent teenagers, 69.23 % of their parents and

or 25.6 % of other family members were also smokers with low level educational background.

Another research article that is also included in this research is the one organized by Devi *et al* [24] in Palu, Indonesia. This group of researchers selected 80 females active smoker and assess factors related to their smoking behavior, namely knowledge of smoking, peer influence, early age of smoking and employment status. In their recommendation, there is urgency to seek relevant information about the gender based effects of smoking. Health education and health promotion are important action to spread awareness regarding the dangers of smoking.

Akbar *et al* [25] in Sumedang want to examine smoking behavior among 99 undergraduate female students in Universitas Padjadjaran, Bandung-Indonesia and it turns out that the results were as follows: 40.40% have started smoking in high school, 31.32% in the university, and 25.25% in junior high school. The smoking intensity was moderate (45.45%), but some were high (29.30%). The location preference for smoking was both in private and public places (88.89%), driven by both positive and negative moods (88.89%). Interestingly, the most addiction level was situational (34.34%) or intensive (34.34%).

The next study included in this study is the one by Karini *et al* [26] in Bengkulu. This study is interesting because the researchers conducted a phenomenological approach through a mix approach comprising in-depth interview and closed observation to 15 female active smokers. The causes of women's smoking behavior are imitating close friends, the influence of mothers who is also smoking, smoking after tired of working, cravings while pregnant and find the smell of cigarettes pleasant and fragrant, including for the practice of smoking right after meal, and the husband's permissiveness towards smoking behavior. The study also found that there had never been health education for women in the context of the dangers of smoking in this area.

The last study being included in this review is the one conducted by Riyandi *et al* [27]. They surveyed 30 female smoker and they found out that 20 out of 30 respondents (66.6%) were heavy smoker. Social milieu and social environment influence smoking behavior among women.

From the map above, it can be seen the extent of the coverage area of Indonesia. with population in Indonesia is expected to reach 275.40 Million by the end of 2022, according to Trading Economics global macro models and analyst expectations. In the long-term, the Indonesia Population is projected to trend around 275.40 Million in 2023, according to the econometric models.

There is a modification where we divide several islands in Indonesia by assigning a letter to each island. (A) Sumatra Island, (B) Kalimantan Island, (C) Java Island (D) Sulawesi Island, (E) Nusa Tenggara Islands and finally the easternmost island in Indonesia (F) Papua Island. in addition, there are circles and arrows that indicate the location of the mapping based on Table 1.

From the mapping above, based on the results of the study (n=15), it was found that the island of Java is the area with the highest distribution of female smokers (10/15 = 66%) compared to other islands. Data regarding prevalence of smoking for adult females in Indonesia from 2007 to 2018 continues in a downward pattern, from 10.8% in 2008 and decreased to 5.3% in 2018 [28]. The number of female smokers across Indonesia remains low compared to males. Further research needs to be done regarding the factors that

influence the tendency of low smoking prevalence in women, in the context of reducing the prevalence in male smokers.

In women, smoking causes a lot of health problems, only blood pressure where systolic and diastolic pressures are higher in women who smoke than those who do not smoke. It also causes an increase in blood sugar caused by a decrease in taste sensitivity associated with smoking which will lead to a higher intake of calories, salt and fat [16].

There are many factors that cause women to smoke, in the research that has been collected, on average, adolescent girls start smoking because the social environment and invitations from peers also follow trends and want to look cool. And living in a smoking family will also make children interested in starting smoking [14-27].

Cigarette smoke is sometime considered more harmful to passive smokers than active smokers [29]. Exposure to cigarette smoke that pregnant women inhale while at home comes from the husband of pregnant women who are active smokers [30]. However, according to research, there are psychological factors in pregnant women when smelling the smell of cigarettes is a factor for starting smoking and husbands who also allow them to smoke. Active and passive tobacco consumption has significant adverse effects, *e.g.*, a low birth weight baby and premature delivery. during pregnancy and postpartum period [31].

women's smoking around pregnancy was strongly associated with the partner's smoking status before pregnancy [32], partner's change in smoking during pregnancy [33], and partner's change in smoking postpartum [34]. Women's educational level and cannabis use before pregnancy were also related with women's smoking before and during pregnancy [36]. Women's ferocity of alcohol use before pregnancy was obscurely associated with women's history of smoking, especially prior and during pregnancy.

Conclusively, it seems essential that partners of women with smoking habits quit smoking before pregnancy occurs and stay away from smoking during pregnancy period [37]. If their partners continue smoking during pregnancy, they should quit smoking postpartum, immediately [38]. It is interesting to explore how health care professionals can perform an important role in addressing partners' smoking and giving them evidence-based cessation support through the entire period of pregnancy, before, during, and after.

Even though there is growing of research evidence-based data on female-specific health risks associated with smoking, but unfortunately those data have not touched much about the specific physical, emotional-psychological, and economic reasons that facilitate women take up and continue smoking or vice versa stop smoking. Understanding these underlying circumstances is critical for providing insights and recommendations for a more specific and female-friendly tobacco-control action.

Moreover, though women are always the minority of smokers, their lives can still be impacted by tobacco use, often in very different ways to men [39]. Women who smoke have a 25% greater excess relative risk for CHD compared with men who smoke [40]. Even though sex differences in smoking behavior do not seem to explain the observed excess risk of smoking in women, it may be that women respond in a biologically different way to smoking than men [41].

Some women choose to smoke and deal with discrimination and even stigmatization [42]. Even every day, non-smokers women are threatened to passive and unintentionally smoke as they frequently cannot give a wide berth to male smokers in their mĕnage, in environment or in public [43]. Women, and all other passive smokers group, *e.g.*, children, are prone to

non-communicable illnesses caused by smoking [44]. There is also an increased risk of becoming a single parent and/or the main wage earner if their spouses become sick and handicapped or even passed away due to chronic and excessive tobacco abuse [45].

To some extent, some women are placed in a difficult position due to their smoking habits [47]. They are expected to act righteously while at the same time are inescapably unveiled to risky smoking attitude and for those who choose to smoke openly definitely experience unwanted negative social attitudes and pressure [48]. For the women who take up smoking this means discontinuing is harder due to not only addiction and peer and other kind of pressures, but a lack of support for overcoming it all [49,50]. having a partner who smokes can influence the spouse's initiation of smoking, or return to smoking after a previous quit attempt [51,52]. In other words, it is possible that a nonsmoking partner can influence his/her spouse to stop smoking [51,53].

This study has many strengths including bringing together information about female smokers from several regions in Indonesia which are geographically very broad, yet it does have some limitations. First, the data can still be said scattered and limited, the research methods summarized are still diverse and therefore may underestimate the real number of female smoker prevalence. Further study need to be conducted regarding female smoker, e.g., longitudinal data on the smoking behavior of both partners and also the possibility of smoking cessation—those with partners who also quit.

Existing behavioral interventions often encourage smokers to reduce exposure to relapsogenic situations or cues and/or promote the regulation of affect (including craving) through the use of strategies intended to modify the content, frequency or intensity of private psychological experiences [46,47,50]. The limitation of success regarding present-day smoking cessation therapies encourages research into exploration of new treatment procedures [47,51-53].

Mind-body practices such as yoga and meditation have the potential to aid smoking cessation and become an alternative drug-free treatment option [54]. Further exploration should be conducted in order to measure the efficacy of yoga and other meditation-based interventions for smoking habit cessation. There is evidence that Yoga may be helpful as an aid for smoking cessation. Yoga has been shown to reduce stress and negative mood and may aid weight control, all of which have proven to be barriers to quitting smoking. This study conducted by Bock et al was the first rigorous, randomized clinical trial of Yoga as a complementary therapy for smokers attempting to quit [55].

4. CONCLUSION

This literature study discusses the prevalence and risk factors of female smokers in Indonesia. Smoking is still a common health problem that causes death on a large scale in the world, especially in the vulnerable group like women. Many internal and social factor affect this practice among women. By teaching them properly about the future risk of smoking and support them actively to quit smoking; this approach will save her future and her descendant. Yoga and or other alternative approach might be an alternative for those who want to quit smoking.

CONSENT
Not needed

ETHICAL APPROVAL
Not needed

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