Research Article

Knowledge, Attitude, and Practices on Smoking Cessation Counseling among Pediatricians caring for Adolescents in Hospitals in Manila, Philippines

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Background: Pediatricians play an important role in smoking cessation, since an estimated 9 of 10thatts who smoke cigarettes daily first started it before their 18th birthday.

Aim: The study aimed to determine the baseline attitude, knowledge, and practices about smoking cessation guidelines on counseling adolescents to stop smoking among pediatricians in government and private hospitals in Metro Manila, Philippines.

Methods: The study was a cross-sectional online survey which used a 22-item validated questionnaire on smoking cessation. To summarize the demographic characteristics of participants, the study used descriptive statistics. For categorical variables, frequency and proportion were used. For normally distributed continuous variables, mean and standard deviation were used. Independent sample T-test and Fisher's exact tests were among the statistical tests used to determine the difference of mean and frequency, respectively, between pediatricians who never smoked compared to pediatricians who either smoked or previously smoked.

Results: The mean knowledge score regarding smoking cessation counselling guidelines was 2.85, which is considered low knowledge. The mean attitude score was 5.35 of a possible 10, while mean practice score was 14.19 of a possible 24. One third of them believed that their efforts to help smokers to quit smoking were not well compensated. More than half agreed that clinical practice guidelines (CPGs) were relevant to improve patient smoking cessation and that every healthcare worker should be given an algorithm for treating chronic smokers. Among respondents, there were a similar number of whom either frequently or seldom inquired when the last time the patient smoked, and this was similar in the item on giving follow-ups to help smokers quit the habit.

Conclusions: Pediatricians have a major role in assisting adolescent patients to stop smoking. Among respondents, there was poor knowledge in giving smoking cessation counseling. Although majority had good attitude toward smoking cessation counselling, the mean practice score was also low. Majority of respondents strongly agreed that every healthcare worker should be given an algorithm for treating chronic smokers. Further training in counseling to stop smoking is recommended to enhance effectively giving this service.

Keywords: smoking cessation; counseling; pediatrician; adolescent; knowledge; attitude; practice

INTRODUCTION

About 9 in 10 adults who smoke cigarettes daily first tried it before their 18th birthday. It is during the adolescence stage that the use of tobacco products is started. [1,2] Pediatricians have a big responsibility in assisting adolescents to stop smoking while in their youth to decrease the consequences and cumulative effects of smoking.

SIGNIFICANCE

This research study aimed to contribute to local information on pediatricians' current knowledge, attitudes, and practices (KAP) on smoking cessation counseling (SCC) of adolescent patients. It seeks to serve as a resource

for recommending a formal training program for pediatricians in counseling adolescent patients to assist them to stop smoking.

Review of Related Literature

As of 2020 worldwide, smoking adults comprised of 32.6% of the population (32.2% to 33.1%). Of the 1.18 billion people who regularly smoked, 7 million people died due to smoking-related conditions. [3] 1.2 million deaths were among non-smokers with second-hand smoke exposure. [4] Among them, the prevalence of using tobacco products among adolescents in 133 countries was 19.33%, with 23.29% among males and 15.35% among females. [5]

In 2015, in the Philippines, several national school-based surveys were done among 13 to 17-year-old adolescents. 14.5% smoked tobacco (20.5% of boys and 9.1% of girls), wherein 12% presently smoked cigarettes. More boys smoked compared to girls (17.6% versus 7%), while 2.5% used smokeless tobacco equipment (2.9% versus 2.1%). Males were twice more likely to smoke than females. [6,7] About 9 of 10 (88.0%) tried to stop smoking. About 1 in 3 (34.3%) among 13-15 years-old who have tried smoking started at 12 or 13 years old. [6]

The Philippine government has actively implemented laws to regulate smoking, especially among adolescents. For instance, the Republic Act 9211 (Tobacco Regulation Act of 2003) limits the age of the potential buyer to not less than 18 years old. [8] Meanwhile, a more recent law in 2019, gradually increased the tax per pack every year until 2023, then 5 percent yearly increase then after. [9] Despite all the administrative controls, smoking among adolescent Filipinos is still observed.

In terms of practice among doctors in giving smoking cessation counselling (SCC), the 5A's and 5R's interventions have been used, which need less than 3 minutes of the physician's time. The 5As of smoking cessation include asking, advising, assessing, assisting, and arranging for a smoker's preparedness to stop smoking, while the 5Rs used for smoking people who still have no active plans of stopping smoking include relevance, risks, rewards, roadblocks, and repetition. [10]

A lack of perceived time during busy clinic days such as in Cilluffo, et al's (2020) study lessened the ability of doctors to cater services related with counseling to stop smoking. [11]

Regarding the views of doctors in their attitude toward smoking cessation, Italian pediatricians claimed they had low self-efficacy in smoking cessation counselling (SCC) and smoking prevention among parents and youth. [12] Vetter (2018) noted that pediatricians had lower self-confidence in giving SCC compared to doctors from other specialties such as internal medicine and psychiatry. [13]

Doctors, as part of the healthcare team, have important roles in both being counselors and good examples to influence patients to stop smoking. In terms of their knowledge, between pediatricians who provided counselling to stop smoking through either 5A's or social media, the group trained with 5A's strategy were more likely to screen patients whether they did smoke and to provide counseling. [14]

There are limited studies done locally, especially among pediatricians in their attitude, knowledge, and practices on SCC to adolescents. This study aims to narrow the gap in the said information among pediatricians to become a resource for policy making for further training.

Primary Objective:

To determine the practices, attitudes, and knowledge regarding smoking cessation guidelines for adolescent patients among pediatricians in government and private hospitals in Metro Manila, Philippines

Secondary Objectives:

1. To evaluate the knowledge of pediatricians regarding guidelines on counseling adolescent patients regarding smoking cessation
2. To determine the attitude among pediatricians in hospitals in Metro Manila, Philippines on giving counseling regarding smoking cessation to their adolescent patients
3. To determine the practices of giving smoking cessation counseling to adolescent patients among pediatricians in hospitals in Metro Manila, Philippines

METHODS

This was a cross-sectional study, using an online survey, which was done among pediatricians practicing at Philippine Pediatric Society (PPS)-accredited government and/ or private hospitals in Metro Manila last April to August 2022. Excluded were Pediatricians outside of Metro Manila and had not yet been affiliated with PPS-accredited hospitals. The research study was conducted when there were still restrictions due to the Coronavirus – 19 (COVID-19) pandemic, wherein strict infection prevention and control measures were employed.

First, a list of hospitals was initially obtained from the PPS website. Fishbowl method was then used to select which among the said hospitals would participate in the study. In recruiting subjects, simple random sampling was then used, wherein participants were randomly recruited from the hospitals to which the link of the questionnaire was sent.

Afterward, consent was obtained from the respective heads of the pediatric department of the said hospitals through electronic mail (e-mail). The request letter included the following: (a) an electronic Google form for the informed consent, and (b) an online questionnaire. Each potential participant was requested to access the link using their e-mail address before completing the survey to avoid repetitive responses. If the invited participant agreed to participate in answering the online questionnaire, the date of giving the consent was recorded. The participant needed to click the choice "Yes" twice: (a) for consent to participate in the study, and 2) for granting permission to use their response for research purposes only. A Google account (e-mail) was made specifically for the sole purpose of conducting this study, to which the Google form containing the electronic informed consent (Appendix B) and questionnaire were linked. Only the authors had access to the raw data (responses)

from the electronic form to ensure data privacy and confidentiality. The data that had been gathered were stored securely in the Google Drive of the said account. The responses were not printed or distributed.

The survey used was entitled "Revised Version of Knowledge, Attitude, and Practice of Medical Doctors on Smoking Cessation Guidelines Questionnaire." It was based on a pilot study done among Malaysian physicians. The first part included the demographics of respondents including their age, years of practicing as a pediatrician, the primary setting of practice whether government or private, smoking status, and the like. Afterward, they proceeded to answer the 22-item self-administered and validated questionnaire (Appendix A), which included 12 items on practice, 5 items on knowledge, and 5 items on attitude regarding stop-smoking guidelines. The different steps of counseling to stop smoking were included. Possible responses for the 22 items consisted of the following: 1) true or false; 2) strongly agree to strongly disagree); and 3) terms related to frequency (always, frequent, seldom, never).

The said questionnaire (Appendix A) was found to have a good Cronbach's alpha value of 0.872, a measure of internal consistency of the items with one another; therefore, it was considered to have good scale reliability. Permission to reproduce and use the validated questionnaire was obtained from the author of the above study through electronic mail.

Sample Size Estimation:

The sample size selection was computed considering a population of 360 pediatricians, which was based on studies done internationally which had a considerable amount of respondents.

At 95% confidence level and 0.05 margin of error, the calculated minimum number of pediatricians is 186. The formula is shown below:

$$SampleSize = \frac{Z^2 \times p \times (1-p)}{e^2} = \frac{1.96^2 \times 0.50(1-0.50)}{0.05^2} = 384.16$$

$$Final\ Sample\ Size = \frac{SampleSize}{1 + \frac{SampleSize - 1}{population}} = \frac{384.16}{1 + \frac{384.16 - 1}{360}} = 186$$

where,

n = minimum sample size or minimum number of subjects

Z = value from the standard normal distribution corresponding to desired confidence level

(Z = 1.96 for 95% confidence level)

p = set at 50% for optimal sample size population set at 360 Pediatricians

e = desired precision 0.05

Data Analysis

To summarize the demographic characteristics of participants, the study used descriptive statistics. For categorical variables, frequency and proportion were used. On the other hand, for normally distributed continuous variables, mean and standard deviation were used. To determine the difference of mean and

frequency between pediatricians who never smoked compared to pediatricians who either smoked or previously smoked, independent sample T-test and Fisher's exact test were used, respectively. All of the tests were two tailed.

The missing values were neither replaced nor estimated. Null hypotheses were rejected at α-level of 0.05. The software used for the data analysis was STATA 13.1.

Ethical Considerations

Ethical approval was obtained from the Institutional Review Board of the authors' affiliated institution prior to the conduct of the study. The principal investigator had no conflict of interest with any institution. The study did not receive any funding from any institution.

RESULTS

Table 1. General Demographics of Pediatricians Who Practice Smoking Cessation Counseling Among Adolescents in Metro Manila

	Total (n=191)
Age (years)	50.78 + 11.95
Sex	
Male	24 (12.57)
Female	167 (87.43)
Duration of service as a Pediatrician (years)	19 (10 to 28)
Estimated number of adolescent patients seen at your practice who smoke	
0	20 (11.7)
1 to 5	113 (66.08)
6 to 10	12 (7.02)
More than 10	26 (15.2)
Setting of Primary Practice	
Private	117 (61.26)
Government	12 (6.28)
Both government and private	62 (32.46)

Of the 191 respondents, majority of respondents were female at 167 (87.43%). 113 (66.08%) saw an estimated number of 1 to 5 adolescents in their outpatient practice, with 117 (61.26%) practicing in private hospitals, while 62 (32.46%) worked in both government and private hospitals. Among respondents, the average duration of experience as a pediatrician was 19 years. (Table 1)

Table 1.1 Details of Demographics and the Attitude, Knowledge, and Practice of Smoking Cessation Counseling Guidelines

Age range (years)	duration of practice (years)[a]	n=191	Knowledge [b]	Attitude [c]	Practice [d]
28-39	4.86	42 (22%)	2.86	5.57	14.9
40-59	18.21	94 (49%)	2.85	5.52	13.81
>60	30.85	55 (29%)	2.85	4.87	14.29
Mean	19		2.85	5.35	14.19
Gender					
Female		167 (87.43%)	2.86	5.32	14.1
Male		24 (12.57%)	2.79	5.5	14.83
estimated # adol pt seen who smoke	**Setting of practice**	**n=191**	**Knowledge [b]**	**Attitude [c]**	**Practice [d]**
0	Both	4	2	5	10.75
	Government	1	4	8	24
	Private	15	2.6	5.8	16.13
subtotal		20	2.55	5.75	15.45
1 to 5	Both	41	2.56	5.32	13.2
	Government	9	3.33	6.89	16.56
	Private	63	2.81	5.37	14.08
subtotal		113	2.76	5.47	13.96
6 to 10	Both	3	2.67	5.67	10
	Government	1	4	4	11
	Private	8	3.25	4.5	12.13
subtotal		12	3.17	4.75	11.5
>10	Both	12	2.83	4.83	16.92
	Government	0	n/a	n/a	n/a
	Private	14	3.29	5.29	16.5
subtotal		26	3.08	5.08	16.69
undisclosed	Both	2	3	4	15.5
	Government	1	3	5	21
	Private	17	3.24	5.06	11.76
subtotal		20	3.2	4.95	12.6

[a] average number of years of practice as pediatrician

[b] mean scores for knowledge, good score is 5 (below 5 is considered low score as per Shalihin, et al (2020))[15]

[c] mean scores for attitude, total possible score is 10, with good score being 5 and above [15]

[d] mean scores for practice, total possible is 24, which is considered as good score [15]

Table 2. Responses to Knowledge component (n=191)

	True	False
	Frequency (%)	
1. 'Assess' is the first component under 5A's of stop smoking clinical practice guidelines.	128 (67.02)	63 (32.98)^
2. 'Assign' is one of the components under 5A's of stop smoking clinical practices.	111 (58.12)	80 (41.88)^
3. 'Assist' is the subsequent component after you advise the patient to quit smoking.	151 (79.06)^	40 (20.94)
4. '5R's was used for those who were unwilling to quit smoking at any time.	155 (81.15)^	36 (18.85)
5. 'Re-usage' is the end component of 5R's framework of stop smoking clinical practice guidelines.	95 (49.74)	96 (50.26)^

For the knowledge component, each correct response (^) was given a score of one (1), while an incorrect response was scored as zero (0). A total score of 5 was considered good knowledge of existing smoking cessation guidelines, while any score below 5 was considered low.

Of the 5 items on knowledge component, less than 50% of respondents were able to answer correctly regarding the first two (2) items (first component of 5A's (32.98%) and whether the step mentioned in the question was part of the 5A's (41.88%)). More than half of respondents (79.06-81.15%) were able to answer correctly for the next 2 items. Only half (50.26%) were able to get the final item on knowledge correctly.

In general, majority of respondents had low knowledge regarding the 5As and 5Rs of smoking cessation counseling. (Table 2)

Table 3. Responses to Attitude component (n=191)

	Strongly agree	Agree	Don't know	Disagree	Strongly Disagree
	Frequency (%)				
1. I feel that my effort in helping smokers to quit is not well rewarded.	6 (3.14)	72 (37.7)	47 (24.61)	53 (27.75)^	13 (6.81)~
2. Clinical practice guidelines are not relevant in improving patient smoking cessation.	4 (2.09)	13 (6.81)	22 (11.52)	104 (54.45)^	48 (25.13)~
3. Repetition in giving advice on quit smoking to patients is beneficial.	102 (53.4)~	76 (39.79)^	4 (2.09)	6 (3.14)	3 (1.57)
4. Framework in approaching chronic smoker is impractical.	3 (1.57)	20 (10.47)	25 (13.09)	106 (55.5)^	37 (19.37)~
5. Every provider should be provided with algorithm on treating chronic smokers.	105 (54.97)~	72 (37.7)^	3 (1.57)	6 (3.14)	5 (2.62)

For the section on the Attitude component, the highest score per item was 2 (~), while the second highest score was scored 1 (^). The highest score for this section was 10.

Seventy-two (72) pediatricians (37.7%) or about 1/3 of respondents agreed that their efforts in helping smokers to quit smoking was not well rewarded. 53 (27.75%) or about ¼ disagree. 53.4% of pediatricians strongly agree that repetition in giving advice on quit smoking to patients is beneficial. More than half (54.45%), agreed that clinical practice guidelines (CPGs) were relevant to improve patient smoking cessation. And also, more than half of respondents (54.97%) strongly agreed that every provider should be given an algorithm for treating chronic smokers. (Table 3)

Table 4. Responses to Practice component (n=191)

	Always~	Frequent^	Seldom	Never
	Frequency (%)			
1. I will check when is the last time that my patient smoked.	60 (31.41)	61 (31.94)	65 (34.03)	5 (2.62)
2. I advise the smokers to quit.	126 (65.97)	55 (28.8)	9 (4.71)	1 (0.52)
3. I advise the smokers to reduce amount of cigarettes per day.	89 (46.6)	75 (39.27)	16 (8.38)	11 (5.76)
4. I inquire the smoker's willingness to quit.	87 (45.55)	71 (37.17)	32 (16.75)	1 (0.52)
5. I provide the smokers with practical counseling.	74 (38.74)	70 (36.65)	43 (22.51)	4 (2.09)
6. I give further follow-ups for smokers quitting.	56 (29.32)	58 (30.37)	68 (35.6)	9 (4.71)
7. I encourage the smokers to indicate why quitting is personally important.	63 (32.98)	69 (36.13)	47 (24.61)	12 (6.28)
8. I ask the smokers to identify any potential harm to self from smoking.	74 (38.74)	73 (38.22)	32 (16.75)	12 (6.28)
9. I ask the smokers to identify negative consequences of continuing smoking	73 (38.22)	72 (37.7)	42 (21.99)	4 (2.09)
10. I ask the smokers to identify advantages of quit smoking to their family.	79 (41.36)	73 (38.22)	36 (18.85)	3 (1.57)
11. I ask smokers why quitting is impossible.	57 (29.84)	71 (37.17)	48 (25.13)	15 (7.85)
12. I continuously inform the smoker's benefits of quit smoking.	110 (57.59)	66 (34.55)	14 (7.33)	1 (0.52)

The section on practice component had a cumulative score of 24, which corresponds to a good practice of smoking cessation counseling. A response of 'Always' was given a subtotal score of 2 (~); 'Frequent' response was given a score of 1 (^). The rest of the responses were given a score of 0.

Generally, pediatricians had a satisfactory practice of smoking cessation counseling except for two (2) domains. Items of concern included (a) inquiring when the last time the patient smoked wherein 65 (34.03%) seldom did, and (b) in giving follow-ups to help smokers quit the habit wherein 68 (35.6%) also responded they seldom did. (Table 4)

DISCUSSION

In the present study, between the different age groups of pediatricians, regardless of duration of practice, and considering gender as an independent factor, there was no significant difference in terms of the knowledge, attitude, and practices regarding smoking cessation guidelines among respondents. This is in contrast to the findings of Sabra (2007) and Yan, et al. (2008) wherein the number of years of practice was found to have contributed to a higher level of expertise, knowledge and capabilities. [22, 23]

Regardless of the estimated number of adolescent patients seen who smoke in either government or private setting, respondents were noted in general to have low knowledge of smoking cessation guidelines (mean 2.85 of possible 5), while the mean attitude score was above average regarding smoking cessation guidelines (mean 5.35 of possible 10). (Table 1.1). This was similar in other studies done in Malaysia and China. [23, 24]

Knowledge on 5A's among Pediatricians

Majority of respondents had an incorrect response for 2 items on knowledge on the steps associated with 5As of smoking cessation. Possible factors which were not included in the questionnaire which may have affected the results included a possibility of insufficient training in smoking cessation counseling (SCC) among respondents.

La Torre, et al. (2014) noted that among pediatricians who provided SCC through either 5A's or social media, the group trained with 5A's strategy were more likely to screen patients whether they did smoke and to provide counseling. [14] On the other hand, in the study of Mahabee-Gittens (2014), pediatricians claimed that "refresher courses emphasizing key steps and updates on new evidence-based SCC would be important." [17]

In connection with this, respondents of Mahabee-Gittens (2014) recommended to have a team-based approach wherein an expert in tobacco cessation is employed to assist in giving SCC beyond the first 2 steps of the 5As. They suggested to have adequate training of practitioners, and giving "pre-arranged" counseling packages. [17]

Attitude on Smoking Cessation counseling among Pediatricians

In the present study, 72 pediatricians (37.7%) or about 1/3 of respondents agreed that their efforts to aid smokers to quit smoking were not well compensated. Meanwhile, 53 (27.75%) disagreed in that statement. Since this was a prevalence study, no further follow-up was done as to which rewards when giving SCC the respondents pertained to. This was one of the concerns that may further be discussed in a future follow-up study.

In relation to this, Cilluffo, et al. (2020) had noted that a number of pediatricians perceived a lack of time and privacy as barriers to giving counseling to stop smoking among parents of children exposed to them, even with

the awareness that the patients had high frequency of asthma (which was considered as the incentive on the side of the physicians if ever the parents stopped smoking for the health benefit of their child). [11]

In the present study, more than half (54.45%) of respondents agreed that clinical practice guidelines (CPGs) were relevant to improve patient smoking cessation. 53.4% of pediatricians strongly agree that repetition in giving advice on quit smoking to patients is beneficial. Furthermore, more than half (54.97%) also strongly agreed that every provider should be given an algorithm for treating chronic smokers. In relation to this, another similar study cited that physicians were noted to lack familiarity with the revised version of the guidelines in their country. [19] This finding further supports the need to have an updated training among pediatricians in the Philippines on smoking cessation counselling.

Practices on Smoking Cessation counseling among Pediatricians

The mean practice score among the respondents was 14.19 of the possible 24 (with 24 being considered as good practice score, since physicians are expected to do the tasks listed in the practice section of the questionnaire, according to Shalihin, et al. (2020) [15] Generally, respondents had inadequate practice of smoking cessation counseling especially in two (2) domains. Items of concern include (a) inquiring when the last time the patient smoked wherein 65 (34.03%) seldom did, and (b) in giving follow-ups to help smokers quit the habit wherein 68 (35.6%) also responded they seldom did.

Similar to our study, the pediatricians, including gynecologists in Meijer, et al. (2019), were least likely to arrange follow-up. It was noted further that among different healthcare professionals (midwives, nurses, gynecologists, pediatricians) who responded regarding the implementation of smoking cessation guidelines in the Netherlands, "pediatricians were least likely to provide the 5 A's". [19]

In contrast to our study, Meijer's pediatricians were least in advising smokers to stop smoking and in assisting in the process of quitting. This is in contrast to majority of our respondents who advised smokers to quit (102 or 64.15% among nonsmokers compared to 24 or 75% among those with a history of smoking). [19] Our study's respondents frequently advised smoking patients to reduce the amount of cigarettes used per day, and inquired among patients the ill effects of smoking, including its harm and negative consequences of continued smoking.

A similar number of more than 500 pediatricians in 2004 and 2010 were compared in terms of smoking counseling. Both groups advised patients to quit smoking (more than 80% for both), although those who received further training in smoking cessation counseling provided materials to support patients in quitting their smoking habit and referred them to programs to stop smoking. [16] This was similar to our study wherein 126 or 65.97% of respondents always advised smokers to quit.

In the study of Simoneau, et al (2021) among 95 pediatricians, 90% respondents claimed they inquired parents regarding smoking behaviors with a minimum of once a year. 99% pediatricians counseled adolescents at least once a year about the dangers of smoking. Similar to our study, 73 or 38.22% of respondents claimed they always inquired with smokers to identify any possible ill effects of using tobacco products, while 72 or 37.7% frequently do so. [12]

In unpublished data on the evaluation of structured training on Brief Advice on Smoking Cessation training conducted by the Philippine Ambulatory Pediatrics, Inc. for healthcare providers, it showed that training on SCC had a significant effect on the practice of providing brief advice to stop smoking. [20] The said findings are also similar to the findings of Pipe, et al. (2009) wherein the only significant prognosticator of a good practice score in giving advice to patients to stop smoking is attendance in a smoking cessation training program. [21]

Limitations of study

Considering that the tool used in the study is self-administered, we considered a possibility of self-report bias, since further discussion with respondents to validate their responses through measures such as focused group discussion was not done, given the cross-sectional nature of this study. It needed to be clarified whether respondents smoked using cigarettes or non-cigarette tobacco-containing products such as electronic cigarettes.
It also needed to include whether pediatricians received any formal training on counseling regarding smoking cessation, which may also affect the data presented, especially the knowledge component.

CONCLUSION

Pediatricians have a major role in assisting adolescent patients to stop smoking. Our study noted the poor knowledge among them in giving smoking cessation counseling. A third of pediatricians believe their efforts to aid smokers to quit smoking were not well compensated. More than half agreed that clinical practice guidelines (CPGs) were relevant to improving patient smoking cessation. Furthermore, most respondents strongly agreed that every healthcare worker should be given an algorithm for treating chronic smokers. In terms of the practice of smoking cessation counseling, there was a similar number of respondents, or about a third of each, who either frequently or seldom inquired when the last time the patient smoked, and this was similar in the item on giving follow-ups to help smokers quit the habit. Further training in counseling to stop smoking is recommended to enhance effectively giving this service.

RECOMMENDATIONS

We recommend a future follow-up study with a pre-and post-intervention (smoking cessation counseling training), which will include in the demographics the factors associated with smoking among pediatricians and the specific type of tobacco-containing product their patients use (cigarette or non-cigarette such as vaping). We also recommend including whether respondents underwent any formal or informal training in counseling on smoking cessation during the pre-intervention phase of the future study. We suggest a nationwide survey including pediatricians in the country's different regions to see the various practices between the regions, hoping to enhance the smoking cessation counseling practices among pediatricians who train in the country.
We recommend that policymakers and stakeholders revisit giving formal training among pediatricians in the Philippines on counseling to stop smoking, incorporating evidence-based approaches.

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