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SURAT PERMOHONAN MENJADI RESPONDEN

Sehubungan dengan penelitian yang berjudul "**Dampak Penerapan Kawasan Bebas Rokok Terhadap Pola Perilaku Merokok Dan Status Merokok Mahasiswa Pada Kampus Kesehatan Di Yogyakarta",** peneliti mengharapkan bantuan teman-teman untuk memberikan informasi mengenai hal-hal yang berkaitan dengan penelitian tersebut melalui kuesioner ini. Tujuan penelitian ini adalah untuk mengetahui mengetahui gambaran dampak penerapan kawasan bebas rokok terhadap pola perilaku merokok dan status merokok mahasiswa pada kampus kesehatan di Yogyakarta.

Kami berharap teman-teman dapat memberikan jawaban sesuai dengan yang diketahui, dirasakan dan dialami. Identitas teman-teman akan dirahasiakan dan hanya dipergunakan untuk kepentingan penelitian, sehingga tidak perlu ragu-ragu untuk memberikan jawaban secara leluasa.

Peneliti menyampaikan terima kasih atas kesediaan dan kerjasamanya. Semoga penelitian ini dapat memberikan manfaat bagi kita semua.

Yogyakarta, Agustus 2017

Hormat saya,

Heni Trisnowati

PERSETUJUAN MENJADI RESPONDEN PENELITIAN

(*INFORMED CONSENT*)

Yang bertandatangan di bawah ini :

Nama Inisial :

Kelas/Semester :

Berdasarkan penjelasan tentang tujuan dan manfaat penelitian yang dilakukan oleh peneliti yang berjudul "**Dampak Penerapan Kawasan Bebas Rokok Terhadap Pola Perilaku Merokok Dan Status Merokok Mahasiswa Pada Kampus Kesehatan Di Yogyakarta**", saya bersedia menjadi responden penelitian.

Demikian pernyataan ini saya buat dengan tulus dan sesungguhnya, tanpa paksaan dari siapapun.

Yogyakarta, Agustus 2017

Peneliti Responden Penelitian

Heni Trisnowati _____

KUESIONER

DAMPAK PENERAPAN KAWASAN BEBAS ROKOK TERHADAP POLA PERILAKU MEROKOK DAN STATUS MEROKOK MAHASISWA PADA KAMPUS KESEHATAN DI YOGYAKARTA

Petunjuk : Jawablah pertanyaan atau pernyataan di bawah ini sesuai dengan kondisi yang Anda alami !

A. Faktor Demografi		
1.	Umur :	
2.	Semester :	
3.	Jenis kelamin :	1. Laki-laki 2. Perempuan
4.	Berapa jumlah jumlah uang saku Anda setiap bulan?	.....
B. Pendapat Mahasiswa terhadap Penerapan Kampus Bebas Rokok		
5.	Bagaimana pendapat Anda terhadap penerapan kebijakan kawasan bebas asap rokok di Kampus UNRIYO?	1. Tidak tahu tentang kebijakan kampus bebas rokok; 2. Tidak peduli; 3. Sangat tidak mendukung kebijakan kampus bebas rokok; 4. Sangat mendukung kampus bebas rokok.
6.	Bagaimana pendapat Anda terhadap usaha yang dilakukan untuk menciptakan kawasan bebas rokok di Kampus UNRIYO?	1. Sangat tidak memadai; 2. Tidak memadai; 3. Cukup memadai; 4. Sangat memadai
7.	Menurut Anda, perlukah pemberian sanksi atau denda bila seseorang merokok di kampus?	1. Ya 2. Tidak
8.	Bagaimana dampak kebijakan kawasan bebas rokok dalam pengurangan perilaku merokok?	1. Efektif 2. Tidak efektif
9.	Bagaimana pendapat Anda terhadap area merokok di lingkungan kampus?	1. Setuju ada tempat khusus untuk merokok di kampus; 2. Tidak setuju ada tempat khusus merokok di kampus

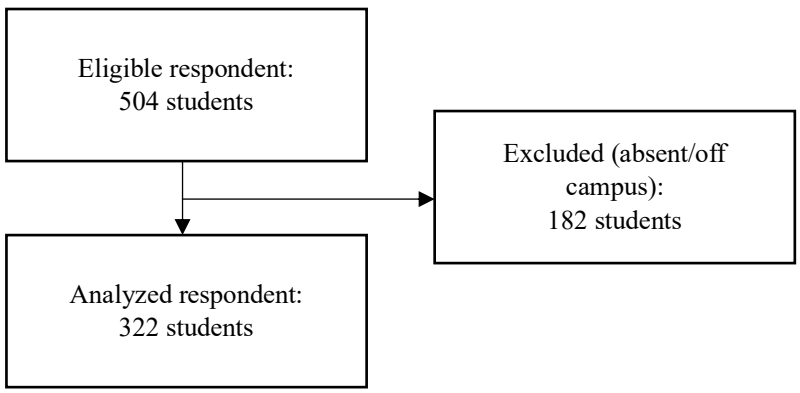
C. Pandangan Mahasiswa terhadap mahasiswa, dosen, karyawan yang merokok di kampus		
10.	Bagaimana pendapat Anda terhadap mahasiswa yang merokok di kampus UNRIYO?	1. Tidak peduli; 2. Mahasiswa boleh merokok di kampus; 3. Mahasiswa boleh merokok diluar kampus; 4. Mahasiswa sebaiknya tidak merokok.
11.	Bagaimana pendapat Anda terhadap dosen yang merokok di kampus UNRIYO?	1. Tidak peduli; 2. Dosen boleh merokok di kampus; 3. Dosen tidak boleh merokok di kampus; 4. Dosen sebaiknya tidak merokok
12.	Bagaimana pendapat Anda terhadap karyawan yang merokok di kampus UNRIYO?	1. Tidak peduli; 2. Karyawan boleh merokok di kampus; 3. Karyawan tidak boleh merokok di kampus; 4. Karyawan sebaiknya tidak merokok
D. **Status Merokok Mahasiswa**		
13.	Bagaimana status merokok Anda saat ini?	1. Tidak pernah mencoba rokok satu hisapan sekalipun; 2. Mantan perokok yaitu merokok lebih dari 100 batang selama hidup tetapi tidak merokok selama 30 hari terakhir; 3. Perokok eksperimen yaitu merokok kurang dari 100 batang dan tidak merokok dalam 30 hari terakhir; 4. Perokok teratur atau perokok yaitu merokok dalam 30 hari terakhir

E. Pola Perilaku Merokok Mahasiswa		
14.	Bagaimana pola perilaku merokok Anda setelah ada penerapan kawasan bebas rokok di Kampus UNRIYO	1. Tidak pernah merokok; 2. Tidak merokok sejak menjadi mahasiswa; 3. Berhenti merokok setelah diberlakukan kampus bebas rokok; 4. Mengurangi jumlah rokok setelah diberlakukan kampus bebas rokok 5. Kebiasaan merokok tidak berubah (tetap merokok) walaupun sudah ada aturan kampus bebas rokok.

STROBE Statement—Checklist of items that should be included in reports of ***cross-sectional studies***

Item	No	Reccomendation
Title and abstract		*(a)* Changes in smoking behavior among students following the implementation of a campus smoke-free Policy: A cross-sectional study
	1	*(b)* **Background:** Smoking behavior among college students remains a concern. A smoke-free campus policy is a straightforward yet effective approach to protect individuals from exposure to secondhand smoke. Although smoking bans are enforced in government offices, health facilities, and schools, their implementation in universities, particularly health campus institutions, is still limited. This study assessed the impact of a smoke-free campus policy on smoking behavior among public health students in Yogyakarta, Indonesia. **Method:** We conducted a cross-sectional survey using a self-administered questionnaire. This study was conducted at the Health University in Yogyakarta, Indonesia. A total of 322 public health undergraduate students were recruited in this study through an accidental sampling technique. This study used Fisher's exact test analysis. **Result:** The smoke-free policy has positively influenced student smoking behavior, as 6.5% of male and 1.9% of female students quit smoking following its implementation. Additionally, 6.5% of male and 3.7% of female students reduced cigarette use. There are also former smokers—4.7% male and 0.3% female. Finally, 56.8% of female students found the policy effective, compared to 20.8% of male students, showing greater female approval overall. The smoking status (p value <0.05) and smoking behavior (p<0.05) were substantially correlated with gender. **Conclusion:** Smoke-free campus policies can significantly reduce smoking behavior, and consistent policy reinforcement and strict sanctions are crucial for long-term success.
Introduction		
Background/rationale	2	The following section will provide a concise overview of the scientific background. • Public health issues: The issue of smoking continues to be a matter of significant concern, including among university students. The Global Adult Tobacco Survey (GATS) was conducted in 2021, and the results indicate that 34.5% of adults in Indonesia use tobacco products. The prevalence of tobacco use is significantly higher among men (65.5%) compared to women (3.3%). • The following discourse pertains to the student context. A plethora of international studies have demonstrated that the prevalence of smoking among students exhibits notable variations based on gender. It is well-documented that various environmental factors often influence students. These include, but are not limited to, peer pressure, the influence of family, and cigarette advertising. • Policy: Despite the implementation of smoke-free areas in government offices, health facilities, and schools, the adoption of such measures in universities remains limited. Indeed, scientific evidence suggests that smoke-free campus policies can reduce smoking prevalence and modify social norms related to tobacco. The following section will provide a concise overview of the Rationale. • Research urgency: Health campuses must assume the role of trailblazers in the creation of conducive environments and nurturing students who are poised to become healthcare professionals and exemplars for the wider community. Consequently, it is essential to assess the impact of smoke-free policies on health campuses. • Knowledge gap: Despite the existence of international evidence on the efficacy of this policy, contextual data from Indonesia, particularly in relation to health students, remains scarce. • Research objectives: This study aimed to assess the impact of a campus smoke-free policy on smoking behavior and smoking status among public health students in Yogyakarta, Indonesia. Additionally, the study will examine the associated characteristics, including gender, age, semester, and allowance.

Objectives	3	This study aimed to assess the impact of a campus smoke-free policy on smoking behavior and smoking status among public health students in Yogyakarta, Indonesia.
Methods		
Study design	4	This study employed a cross-sectional design at a health university campus in Yogyakarta, Indonesia. Data were collected in 2017 from undergraduate public health students in semesters 1, 3, and 5. he study analyzed students' perceptions of the smoke-free campus policy and its impact on their smoking behavior and smoking status using a self-administered questionnaire.
Setting	5	The study was conducted at a health university campus in Yogyakarta, Indonesia. Data collection took place in 2017, targeting undergraduate students enrolled in semesters 1, 3, and 5. Recruitment was done using an accidental sampling technique, and only students present during the survey period were included. Students absent from class, engaged in field practice, or away from campus were excluded.
Participants	6	The study population consisted of 504 undergraduate public health students. A total of 322 students were recruited using an accidental sampling technique. The inclusion criteria were students enrolled in semesters 1, 3, and 5 who were present during the data collection period. The exclusion criteria included absent students, engaged in off-campus activities such as field practice, or had returned to their hometowns during the survey.
Variables	7	The primary outcomes were smoking behavior patterns and smoking status. Smoking behavior was categorized as positive (never smoked, not smoking since becoming a student, quitting smoking after the smoke-free policy, or reducing cigarette consumption) and negative (continuing to smoke despite the policy). Smoking status was defined as non-smoker (never smoked, former smoker, experimental smoker) or active smoker (regular smoker). Exposures and predictors included gender, age, semester of study, and amount of pocket money. In the context of the study, demographic factors were also considered as potential confounders in the relationship between perceptions and smoking outcomes. The diagnostic criteria were not applicable in this instance, since the data were self-reported through a validated questionnaire. All variables were assessed using a structured self-administered questionnaire with operational definitions based on prior literature.
Data sources/ measurement	8*	The data were collected using a self-administered structured questionnaire adapted from prior research by Prabandari et al. (2009) on the effectiveness of a smoke-free campus policy at the Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta. The questionnaire included items on: • Demographic characteristics (age, gender, semester, and pocket money), • Perceptions of the smoke-free campus policy, • Perceptions of smoking behavior among students, lecturers, and staff, • Smoking behavior patterns (never smoked, quit after the policy, reduced consumption, or continued smoking) • Smoking status (non-smoker, former smoker, experimental smoker, and active smoker). The same instrument and measurement methods were applied uniformly to all participants, ensuring comparability across groups.
Bias	9	To mitigate bias in this study, we are using a standardized, previously validated questionnaire to reduce measurement bias and uniform procedures to all participants. However, potential reporting bias due to the self-administered nature of the questionnaire, as well as social desirability bias, cannot be ruled out.
Study size	10	504 undergraduate students studying public health made up the study population. Using an accidental sampling strategy, 322 pupils were selected from this population. The number of students who were available throughout the data collection period and who satisfied the inclusion criteria was used to calculate the final sample size. There was no official calculation of the sample size.
Quantitative variables	11	The variables for this research are: 1) Demographic variables: a) Age was categorized into adolescent and young adult groups; b) Gender was grouped as male or female; c) Pocket money was categorized relative to the Yogyakarta Provincial Minimum (≤ IDR 1,340,000 and > IDR 1,340,000).

		2) Students' views on smoke-free campuses: Responses were measured using categorical options (supportive, unsupportive, or undecided). 3) Students' views on students, lecturers, and employees who smoke: 4) Categorical responses indicating whether smoking was perceived as acceptable or not. 5) Smoking behavior patterns: Defined as a binary variable: Positive behavior: never smoked, not smoking since becoming a student, quitting smoking after the smoke-free policy, or reducing the number of cigarettes after the policy. Negative behavior: continuing to smoke despite the smoke-free policy. 6) Smoking status: Also defined as a binary variable: Non-smoker: never smoked, former smoker, or experimental smoker; Active smoker: regular smoker. These categorizations were applied to facilitate interpretation, align with prior research definitions, and enable statistical testing of associations across groups.
Statistical methods	12	(*a*) Both univariate and bivariate analyses were used to examine the data. For descriptive variables, percentages and frequencies were computed. With a 95% confidence interval and a significance level of $p < 0.05$, Fisher's exact test was used to examine correlations between smoking status and demographic traits. The analyses considered key demographic variables (age, gender, semester and pocket money). However, as no specific statistical adjustment was performed for all possible confounders, residual confounding from unmeasured variables remains a limitation.
		(b) The effectiveness of the smoke-free campus regulation was investigated using subgroup analysis depending on the demographics of the students (gender, age, semester, and pocket money). Perceived efficacy was shown to be substantially correlated with semester. No official interaction analysis was conducted.
		(c) Respondents who did not fill in one of the question items were not included in the analysis, and the data was removed; then the data was analyzed based on the remaining data.
		(d) This study used an accidental sample, and the analysis did not use weighting or adjustments in the sample. Therefore, all respondents who met the inclusion criteria during the study were included in the analysis.
		(*e*) No formal sensitivity analyses were conducted.
Results		
Participants	13*	(a) This study had a potential population of 504 people who were public health students at a university in Yogyakarta. Of this population, 322 respondents completed the questionnaire in full and were included in the final analysis. There are no exposed and unexposed groups in this study. Instead, all participants were assessed according to their smoking behavior and status (smoker versus non-smoker), as well as their perceptions of the smoke-free policy. These categories were analyzed separately in the results section.
		(b) Non-participation was caused by students being absent during the survey, participating in off-campus activities such as field practice, or returning to their hometowns during data collection.
		(c) 
Descriptive data	14*	(a) Most respondents were female, comprising 74.2% (239 people), and were in their third semester, accounting for 41.3% (133 people). Furthermore, the majority of respondents were in the teenage age group, namely 59.6% (192

		people). Furthermore, most respondents received pocket money in the range of less than or equal to the Provincial Minimum Wage of Yogyakarta, namely 68% (219 people). The DIY Provincial Minimum Wage in 2017 was IDR 1,337,645, rounded up to IDR 1,340,000. In the context of the study, demographic factors were also considered potential confounders in the relationship between perceptions and smoking outcomes.
		(b) Missing data in this study was a very low proportion, less than 1% of the data, so not much data was omitted in the analysis process, and all data filled in completely by respondents was used.
Outcome data	15*	• The study comprised a total of 322 students. Regarding smoking behavior patterns after the implementation of the smoke-free campus policy, the majority of students surveyed reported never having smoked, with 36 males (11.2%) and 212 females (65.8%) falling into this category. A negligible proportion of the sample stated that they had abstained from smoking since becoming students: specifically, 5 males (1.6%) and 6 females (1.9%). Furthermore, 13 males (4.0%) and 6 females (1.9%) reported quitting smoking after the policy was introduced, while 21 males (6.5%) and 12 females (3.7%) reduced their cigarette consumption. Nevertheless, a proportion of students continued to smoke, despite the implementation of the policy. This included eight male students (representing 2.5% of the male student population) and three female students (representing 0.9% of the female student population). • Concerning smoking status, the majority of participants were non-smokers, comprising 37 males (11.5%) and 227 females (70.5%). A total of 15 males (4.7%) and one female (0.3%) were identified as former smokers. The experimental smokers comprised 17 males (5.3%) and 7 females (2.2%), while regular or active smokers consisted of 14 males (4.3%) and 4 females (1.2%). • Regarding the perceived effectiveness of the smoke-free campus policy, 67 male respondents (20.8%) and 183 female respondents (56.8%) considered the policy effective, while 14 male respondents (4.3%) and 46 female respondents (14.3%) regarded it as ineffective. A negligible proportion of students, specifically two male students (0.6%) and ten female students (3.1%), did not express a preference.
Main results	16	*(a)* This study used Fisher's exact test as a bivariate analysis to show a significant relationship between gender and smoking behavior patterns ($p = 0.001$) and smoking status ($p = 0.000$). In addition, male students tended to show positive smoking behavior (9.6%) and become active smokers compared to female students. The risk of male students exhibiting positive smoking behavior was 0.92 times greater (95% CI: 0.85-0.98), and the likelihood of becoming active smokers was 0.85 times greater (95% CI: 0.03-0.26) compared to female students. Demographic characteristics such as age, semester, and pocket money did not show a significant relationship with smoking behavior and status.
		(b) Continuous variables were then categorized for analysis in this study, such as: age of the subjects, which was grouped into two categories: adolescents (aged ≤19 years) and young adults (aged ≥20 years). The academic year was divided into three semesters: first, third, and fifth. The allocation of pocket money was stratified according to the stipulated minimum wage in the province of Yogyakarta in 2017, with two categories: the first category comprised individuals with an income of up to IDR 1,340,000, while the second category encompassed those with an income exceeding IDR 1,340,000.
		(c) Because this study uses a cross-sectional design, the results are reported in terms of prevalence and proportion only. Reporting the results in terms of relative risk and absolute risk is not relevant in this study.
Other analyses	17	Subgroup analyses were conducted to investigate how student characteristics influenced the perceived effectiveness of the smoke-free campus policy. The results showed that the semester of study was significantly associated with perceived reductions in smoking behavior ($p = 0.000$). Students in the third (83.5%) and fifth (79.1%) semesters were more likely to view the policy as effective than those in the first (64.6%) semester. However, no significant associations were found between perceived effectiveness and gender, age or

		pocket money. No formal analyses of interactions or sensitivity analyses were conducted.
Discussion		
Key results	18	This study found that the smoke-free campus policy positively impacted students' smoking behavior and status. While a small proportion of students reported quitting or reducing their cigarette consumption after the policy was implemented, the majority were classified as non-smokers. This study also showed that gender was significantly associated with smoking behavior and smoking status, with male students more likely to be active smokers. Nevertheless, the semester of study was also significantly associated with students' perceptions of the policy's effectiveness. These findings are consistent with the study objective of evaluating the impact of a campus smoke-free policy on student smoking behavior and status.
Limitations	19	This study has several limitations. Firstly, the cross-sectional design limits the ability to establish causal relationships between smoke-free campus policies and changes in smoking behavior or status. Secondly, the utilization of self-reported data may engender information bias, encompassing social desirability bias and the potential misclassification of smoking status. Thirdly, although key demographic and behavioral factors were analyzed, it cannot be ruled out that residual confounding by unmeasured variables exists. Finally, the study was conducted among undergraduate public health students in one university, which may limit the generalizability of the findings to other student populations or settings. Nevertheless, the results provide valuable insights into smoking behavior and perceptions of smoke-free policies in a key group of future health professionals.
Interpretation	20	While the findings in this study fully support the smoke-free areas policy on campus, there are limitations in this study that may have influenced the results. Nevertheless, the findings of this study are consistent with those of previous studies in Indonesia and other countries, which strengthen the evidence that smoke-free policies make a significant contribution to reducing smoking behavior and promoting healthier habits. This study also highlights the importance of continued policy strengthening regarding smoke-free areas, supported by sanctions and other health promotion activities, to achieve long-term behavior change among university students.
Generalisability	21	The findings of this study are most directly applicable to students in health-related faculties, where awareness of health risks is likely to be higher and support for smoke-free policies stronger. It is imperative to exercise caution when generalizing the results of this study to students in non-health faculties or other regions with differing cultural and social contexts. Nevertheless, this study provides significant evidence that smoke-free campus policies can be effective in Indonesian universities and can inform the implementation of broader policies.
Other information		
Funding	22	This work did not receive any financial support from external institutions or funding agencies.

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.