



THE INFLUENCE OF CIGARETTE ADVERTISING EXPOSURE ON TEENAGE SMOKING CESSATION INTENTION

Sujono Riyadi^{1*}, Marmi²

¹Universitas Jenderal Achmad Yani Yogyakarta, Jl. Brawijaya, Ringroad Barat, Ambarketawang, Gamping, Sleman, Yogyakarta 55294, Indonesia

²Universitas YPIB Majalengka, di Jl. Gerakan Koperasi No.003, Majalengka Wetan, Majalengka, West Java 45411, Indonesia

*sujono_kmpk2005@yahoo.com

ABSTRACT

Smoking is one of the serious health problems among adolescents in Indonesia, and exposure to cigarette advertisements can influence their intention to quit smoking. This study aims to analyze the effect of exposure to cigarette advertisements on adolescents' intention to quit smoking in Sumenep, Madura. Methods: This study used a quantitative design with a cross-sectional approach. A total of 200 adolescents aged 13 to 18 years in Sumenep were selected as respondents using purposive sampling. Data were collected through questionnaires measuring exposure to cigarette advertisements and the intention to quit smoking. Data analysis was conducted using Pearson correlation tests. Results: The analysis showed a significant negative relationship between exposure to cigarette advertisements and adolescents' intention to quit smoking, with a Pearson correlation value of $r = -0.157$ and $p = 0.027$. The majority of respondents were male (70%) and had a high school education (76.5%). Conclusion: This study shows that the higher the adolescents' exposure to cigarette advertisements, the lower their intention to quit smoking. These findings highlight the importance of stricter regulations on cigarette advertisements in media accessed by adolescents, as well as the need for more effective educational programs to encourage adolescents in their efforts to quit smoking.

Keywords: adolescents; exposure to cigarette advertisements; intention to quit smoking

How to cite (in APA style)

Riyadi, S., & Marm, M. (2024). The Influence of Cigarette Advertising Exposure on Teenage Smoking Cessation Intention. *Indonesian Journal of Global Health Research*, 7(1), 637-644. <https://doi.org/10.37287/ijghr.v7i1.4528>.

INTRODUCTION

Adolescents are an age group that is vulnerable to media influence, particularly regarding smoking behavior (Jufri et al., 2023; Pratama et al., 2021). Smoking among adolescents often starts out of curiosity and exposure to a social and media environment that supports this behavior. According to data from the Ministry of Health of the Republic of Indonesia, the prevalence of smoking among Indonesian adolescents has continued to increase in recent years, with mass media, such as cigarette advertisements, playing a major role in promoting a positive image of smoking (Nurjanah et al., 2023). Cigarette advertisements on television, print, and digital media often convey messages that implicitly associate smoking with high social status, masculinity, and a modern lifestyle, making adolescents emotionally involved (Ama et al., 2021; Hasanah et al., 2021). This exposure can delay or hinder adolescents' intentions to quit smoking, even though they are aware of the health risks involved (Liem, 2014; Rachmat et al., 2013).

Several theoretical frameworks can explain the relationship between exposure to cigarette advertisements and smoking behavior, one of which is the Theory of Planned Behavior (Ajzen, 1991). This theory explains that the intention to perform or refrain from a behavior is influenced by attitudes toward the behavior, subjective norms, and perceived behavioral

control. Exposure to cigarette advertisements, as described by Shofa and Utami (2017), enhances positive attitudes toward smoking by strengthening emotional attachment and the positive image of cigarettes, which ultimately hinders efforts to quit smoking (Hasanah et al., 2021). Cigarette advertisements also reinforce social norms that support smoking, especially in areas with strong smoking traditions like Sumenep, Madura, thereby increasing social pressure on adolescents to continue smoking (Rachmat et al., 2013; Zahrani & Arcana, 2021). Additionally, the low perception of control over the ability to quit, which is also influenced by advertising exposure, weakens the intention to quit smoking, as highlighted by the research of Dewi et al. (2017) and Siburian & Siahaan (2022). Thus, cigarette advertisements not only increase the desire to smoke but also hinder adolescents' intentions to quit through their influence on the three main factors in the Theory of Planned Behavior.

This research fills a gap in the literature by examining how cigarette advertisement exposure influences adolescents' intentions to quit smoking in Sumenep, Madura. Most previous studies have focused on the impact of cigarette advertisements in initiating smoking habits, while the aspect of how these advertisements hinder the intention to quit has rarely been discussed (Hasanah et al., 2021). More in-depth research is needed to explore how cigarette advertisements can block the intention to quit and to develop more effective intervention strategies (Daulay et al., 2018; Rachmat & Aldillah, 2016). Additionally, this study highlights conditions in rural areas, which are often overlooked in studies on smoking behavior in Indonesia. Therefore, this research is expected to provide new insights into the role of cigarette advertisements in reinforcing smoking habits among adolescents and identify factors that may influence their intention to quit.

In general, the issue of smoking among adolescents in Indonesia has become increasingly complex with the pervasive influence of cigarette advertisements, especially in areas like Sumenep, Madura, where smoking is considered part of the social culture (Daulay et al., 2018; Hasanah et al., 2021; Nurlizawati et al., 2024). This raises important questions about the extent to which cigarette advertisement exposure affects adolescents' intentions to quit smoking, particularly in areas heavily influenced by local culture like Madura. Thus, the main issue addressed in this study is how cigarette advertisement exposure influences adolescents' intentions to quit smoking in Sumenep. This study aims to analyze the effect of cigarette advertisement exposure on adolescents' intentions to quit smoking in Sumenep, Madura. The specific objective is to evaluate the relationship between the frequency of cigarette advertisement exposure and adolescents' intentions to quit smoking, and to identify other factors that may influence this relationship. By analyzing these factors, this study is expected to provide input for policymakers and public health programs to design more effective interventions in reducing smoking prevalence among adolescents, especially in areas with strong smoking cultures.

This study is limited to adolescents aged 13 to 18 years in Sumenep, Madura. Additionally, this study will only cover the effect of cigarette advertisement exposure on the intention to quit smoking, without taking into account actual smoking cessation behavior. The study will also focus on print, electronic, and digital media, excluding other media such as direct promotion in stores or sponsorship events related to cigarettes. These limitations were chosen to ensure that the study focuses on the influence of advertising media on the intention to quit smoking, producing more specific findings that can be applied directly in the field.

METHOD

This study is a quantitative research with a cross-sectional design. The sample consists of 200 adolescents in Sumenep Regency, selected using purposive sampling technique. The dependent variable is the intention to quit smoking, while the independent variable includes exposure to cigarette advertisements. Data were collected through a questionnaire that measured the frequency of advertisement exposure and the intention to quit smoking, and validity and reliability tests were conducted. Reliability testing using Cronbach’s Alpha showed coefficients above 0.70 for both variables, indicating good internal consistency. Content validity was assessed by public health experts, while construct validity was verified through exploratory factor analysis (EFA), ensuring that each item appropriately correlated with its respective factor. Data analysis used descriptive statistics to observe respondent characteristics and Pearson correlation to analyze the relationship between the two variables. The statistical test used was the Chi-Square test; if the requirements were not met, Fisher’s exact test was used. To test the hypothesis, the significance level was set at 95% with an error rate of 5% or (0.05). The research results were then presented in table form and explained narratively to provide an overview and clarify the data presented.

RESULTS

This study involved 200 adolescents in Sumenep Regency, Madura. The frequency distribution of respondents based on gender and education level is explained as follows:

Gender

According to Table 1, the majority of respondents in this study were male, totaling 140 individuals (70.0%), while 60 respondents were female (30.0%).

Table 1.
Frequency Distribution of Respondents Based on Gender

Gender	f	%
Female	60	30.0
Male	140	70.0

Education Level

According to Table 2, the majority of respondents had a senior high school education (SMA), totaling 153 individuals (76.5%), followed by respondents with junior high school education (SMP) totaling 43 individuals (21.5%), and only 4 respondents (2.0%) had elementary school education (SD).

Table 2.
Frequency Distribution of Respondents Based on Education Level

Education	f	%
Elementary school	4	2
Junior high school	43	21.5
Senior high school	153	76.5

This study also analyzed the relationship between exposure to cigarette advertisements and the intention to quit smoking using Pearson correlation, as shown in Table 3.

Table 3.
Correlation Between Exposure to Cigarette Advertisements and Intention to Quit Smoking

Variable	Exposure to Cigarette Advertisements	Intention to Quit Smoking
Exposure to Cigarette Ads	1	-0.157
Intention to Quit Smoking	-0.157	1
Sig. (2-tailed)		0.027
N	200	200

DISCUSSION

The results of this study show a significant negative relationship between exposure to cigarette advertisements and adolescents' intention to quit smoking. Based on Pearson correlation analysis, it was found that the correlation value between exposure to cigarette advertisements and the intention to quit smoking was $r = -0.157$ with $p = 0.027$, indicating a significant relationship at a significance level of $p < 0.05$. This means that the higher the exposure of adolescents to cigarette advertisements, the lower their intention to quit smoking. These results are consistent with previous studies, which found that exposure to cigarette advertisements often reinforces positive perceptions of smoking behavior (Daulay et al., 2018; Hasanah et al., 2021). The finding that exposure to cigarette advertisements has a negative relationship with adolescents' intention to quit smoking implies that the more frequently adolescents are exposed to these advertisements, the less likely they are to intend to quit smoking (Andriati, 2021). A primary implication of this result is that cigarette advertisements do not only influence the intention to start smoking but also reinforce attachment to smoking habits, hindering efforts to quit (Daulay et al., 2018). These advertisements often associate smoking with positive images, such as freedom, a modern lifestyle, or masculinity, leading adolescents to perceive smoking as an integral part of their identity (Wijaya et al., 2017; Handaningtias, 2022). Consequently, adolescents frequently exposed to these advertisements find it more challenging to break free from the smoking habit, even if they are aware of the health risks involved.

This negative relationship aligns with previous research, such as that conducted by Shofa and Utami (2017), which indicated that cigarette advertisements can enhance emotional attachment to smoking. Advertisements often depict smoking as a socially accepted, even advantageous activity, particularly in regions like Sumenep, where smoking traditions are strong. This finding also supports the research by Dewi et al. (2017), which revealed that cigarette advertisements significantly increase the intention to continue smoking among adolescents. In this context, exposure to cigarette advertisements not only hampers the intention to quit smoking but also reinforces social norms that support smoking behaviors. From a psychological perspective, this result can be explained through the Theory of Planned Behavior (Ajzen, 1991), which posits that positive attitudes toward a behavior, social norms (Rachmat et al., 2013), and perceived behavioral control influence the intention to engage in or refrain from a specific action. Cigarette advertisements play a crucial role in reinforcing positive attitudes toward smoking and social norms that support the behavior while simultaneously reducing the perceived self-control necessary to quit smoking (Zahrani & Arcana, 2021). In other words, cigarette advertisements create an environment where smoking is viewed as a behavior that is difficult to cease, further diminishing the intention to quit.

This study strengthens the findings of several previous studies, which state that cigarette advertisements, especially those presented visually through television, print media, and social media, can influence adolescents' attitudes and behaviors toward smoking. According to Tantri, cigarette advertisements have the ability to create a glamorous or masculine perception of smoking, which then reduces an individual's intention to quit smoking (Hasanah et al., 2021; Tantri et al., 2018). In the context of Sumenep, Madura, where the smoking culture is very strong, exposure to cigarette advertisements can further reinforce smoking habits as a socially accepted norm, thus hindering adolescents' efforts to quit smoking. Moreover, the results of this study show that the group of adolescents most exposed to cigarette advertisements are those with a high school education (76.5%). This indicates that older adolescents are more likely to be exposed to cigarette advertisements through the various

media they frequently access, such as the internet and social media (Ramadona et al., 2024). This condition poses its own challenge in controlling smoking, especially since high school-aged adolescents are in a transitional phase toward adulthood and are more vulnerable to environmental influences, including media (Maharani & Harsanti, 2021).

Another finding from this study also supports the existing literature regarding the role of gender in smoking behavior. The majority of respondents in this study were male (70.0%), which is consistent with previous research showing that the prevalence of smoking among males is much higher than among females (Ridhoila et al., 2017). The strong masculine values in Madura's culture may be one of the driving factors for smoking behavior among males, where smoking is often seen as a symbol of maturity and bravery. A gender-based analysis indicates that males tend to have higher rates of exposure to and prevalence of smoking compared to females, which can be explained through several social, cultural, and psychological factors. In many societies, including Madura, social norms often associate smoking with masculinity, social status, and bravery. Males, particularly adolescents, may feel pressured to demonstrate their masculine identity through behaviors such as smoking, which is frequently viewed as a symbol of maturity and social appeal (Hasanah et al., 2021; Ridhoila et al., 2017).

Research by Jufri et al. (2023) found that peer pressure also plays a significant role in influencing smoking behavior among adolescent males. When smoking peers are perceived as "cool" or accepted, adolescent boys may feel compelled to participate, increasing their exposure to cigarettes and cigarette advertisements. Additionally, according to a study by Maharani & Harsanti (2021), males are more likely to be exposed to cigarette advertisements through social media and digital platforms, where ads often portray masculine images and modern lifestyles that appeal to them. From a psychological perspective, males are also more likely to hold positive attitudes toward smoking, reinforced by advertisements that depict smoking as a desirable behavior. Research by Tantri et al. (2018) indicates that positive perceptions of cigarette advertisements are directly related to the intention to smoke, particularly among adolescent boys. This suggests that exposure to cigarette advertisements not only promotes smoking behavior but also reinforces the perception that smoking is an integral part of their identity as males.

The results of this study have several important implications for the development of cigarette advertising control policies, especially in areas with a high smoking prevalence, such as Sumenep, Madura. One policy that could be considered is restricting cigarette advertisements in media easily accessible to adolescents, including social media and television, which are the main sources of advertisement exposure for this age group (Ama et al., 2021; Firmansyah et al., 2023; Hasanah et al., 2021). Additionally, further efforts are needed to provide education about the dangers of smoking specifically targeted at adolescents, as well as intervention programs that can increase adolescents' awareness and motivation to quit smoking. The findings of this study indicate that exposure to cigarette advertisements has a significant negative relationship with adolescents' intention to quit smoking, which presents several important implications for public policy and public health interventions. First, these findings highlight the urgent need to regulate and restrict cigarette advertising, particularly in media accessible to adolescents (Saleh et al., 2016). By reducing adolescents' exposure to cigarette advertisements, it is hoped that the positive influence these advertisements have on smoking behavior can be diminished. This aligns with recommendations from the World Health Organization (WHO), which calls for tobacco advertising control as a vital step in reducing smoking prevalence among adolescents (Morgenstern et al., 2013). Second, the results

underscore the necessity for more effective education and awareness programs specifically targeting adolescents (Muflih et al., 2023). These programs should be designed to educate teenagers about the negative impacts of smoking and how cigarette advertisements can mislead their perceptions. Community-based approaches that involve families and community leaders can reinforce these messages and help create an environment supportive of smoking cessation efforts (Ramza, 2022). Peer-led interventions can also be effective, considering the strong influence of peer groups among adolescents (Wijaya & Rahman, 2020).

Third, policies should take into account the demographic characteristics of adolescents, such as gender and education level, when formulating intervention strategies. For instance, given that the majority of respondents were male (Zahrani & Arcana, 2021), programs should consider the social norms that may reinforce smoking behavior among adolescent boys and how cigarette advertisements perpetuate these norms. By gaining a better understanding of the factors influencing smoking behavior among adolescents, policies can be designed to be more effective in reducing smoking prevalence and increasing the intention to quit (Hasanah & Zahratul, 2022). This study has several limitations that need to be considered. First, the cross-sectional research design only allows for identifying relationships between variables at one point in time, so it cannot establish causal relationships. Second, the measurement of exposure to cigarette advertisements and the intention to quit smoking was based on self-reports, which may be prone to social and recall bias. Third, this study was limited to the Sumenep area, Madura, so the results may not be generalizable to other areas with different social and cultural contexts. For future research, it is recommended to use a longitudinal design to evaluate changes in the intention to quit smoking along with changes in exposure to cigarette advertisements over time. Additionally, further research needs to be conducted in other areas in Indonesia to test whether these findings apply in a broader context. The use of more objective measurement methods, such as tracking media exposure, can also enrich the results of this study and minimize bias.

CONCLUSION

The results of this study conclude that the relationship between exposure to cigarette advertisements and adolescents' intention to quit smoking in Sumenep, Madura, was found to be negative and significant. The correlation analysis shows that as exposure to cigarette advertisements increases, the intention to quit smoking decreases. This relationship is evidenced by a Pearson correlation value of $r = -0.157$ with $p = 0.027$, which indicates a significant influence at the 95% confidence level ($p < 0.05$). Most of the respondents in this study were male adolescents with a high school education. This finding reinforces that cigarette advertising exposure is more prevalent among older male adolescents, which is particularly relevant in regions like Sumenep, where smoking is culturally accepted and prevalent. The study underscores the need for targeted regulatory measures to control cigarette advertisements that are accessible to adolescents, especially through media like social media and television. Additionally, it is crucial to strengthen educational programs and community involvement to support adolescents in their efforts to quit smoking.

REFERENCES

- Ajzen, I. 1991. *The Theory of Planned Behavior*, Organizational Behavior And Human Decision Processes 50, 179-211. Amherst: Academia Press.Inc.
- Ama, P. G. B., Rivanto, R., & Ramon, V. (2021). Pengaruh Faktor Intrinsik Dan Ekstrinsik Terhadap Perilaku Merokok Pada Siswa SMP Trisoko. *Jurnal Ilmu Kesehatan Masyarakat*, 10 (02), 102–109. <https://doi.org/10.33221/jikm.v10i02.870>
- Andriati, R. (2021). Analisis tingkat ketergantungan nikotin dan peran kecerdasan emosional

- dengan niat berhenti merokok pada remaja. *Jurnal Ilmiah Kesehatan*, 14(2), 116-122. <https://doi.org/10.48144/jiks.v14i2.521>
- Daulay, M., Harahap, J., Lubis, B., & Batubara, S. (2018). Hubungan Reklame Rokok Dengan Perilaku Merokok Pelajar SMA Negeri 4 Di Kota Pematangsiantar Tahun 2017. *Best Journal (Biology Education, Sains and Technology)*, 1(2), 44–52. <https://doi.org/10.30743/best.v1i2.792>
- Destri, Y., Sari, F. E., & Perdana, A. A. (2019). Perilaku Merokok Dan Faktor Yang Berhubungan Pada Siswa. *Jurnal Kesehatan Metro Sai Wawai*, 12(2), 17. <https://doi.org/10.26630/jkm.v12i2.1976>
- Firmansyah, D., Widyaningrum, A. G., & Rahma, R. J. (2023). Cross Promotion Program Berita Dalam Konvergensi Televisi Dan Media Sosial. *Jurnal Ilmu Komunikasi Politik Dan Komunikasi Bisnis*, 7(1), 115. <https://doi.org/10.24853/pk.7.1.115-130>
- Handaningtias, U. R. (2022). Maskulinitas: fantasi masyarakat tentang tubuh (sebuah kajian tentang tanda pada iklan rokok di indonesia). *Ijd-Demos*, 4(1). <https://doi.org/10.37950/ijd.v4i1.178>
- Hasanah, R., Gayatri, R. W., & Ratih, S. P. (2021). Pengaruh Iklan Terhadap Perilaku Merokok Siswa: Literature Review. *Sport Science and Health*, 3(10), 757–760. <https://doi.org/10.17977/um062v3i102021p757-760>
- Jufri, I. H., Zainuddin, K., & Kusuma, P. (2023). Pengaruh Konformitas Teman Sebaya Dan Kontrol Diri Terhadap Perilaku Merokok Pada Siswa SMP “X” Makassar. *PESHUM : Jurnal Pendidikan, Sosial Dan Humaniora*, 2(6), 1164–1183. <https://doi.org/10.56799/peshum.v2i6.2392>
- Liem, A. (2014). Influences Of Mass Media, Family, And Friends Towards Adolescents’ Smoking In Yogyakarta. *Makara Human Behavior Studies in Asia*, 18(1), 41. <https://doi.org/10.7454/mssh.v18i1.3460>
- Maharani, V., & Harsanti, T. (2021). Variabel-Variabel Yang Mempengaruhi Intensitas Merokok Remaja Pria Di Indonesia Tahun 2017. *Seminar Nasional Official Statistics*, 2021(1), 821–830. <https://doi.org/10.34123/semnasoffstat.v2021i1.1054>
- Morgenstern, M., Isensee, B., & Hanewinkel, R. (2013). From never to daily smoking in 30 months: the predictive value of tobacco and non-tobacco advertising exposure. *BMJ Open*, 3(6), e002907. <https://doi.org/10.1136/bmjopen-2013-002907>
- Muflih, M., Asmarani, F. L., Suwarsi, S., Erwanto, R., & Amigo, T. A. E. (2023). Pemberian edukasi video dan diskusi interaktif terhadap peningkatan pengetahuan bahaya merokok, narkoba, dan seks bebas pada remaja. *Journal of Public Health Innovation*, 3(02), 249-256. <https://doi.org/10.34305/jphi.v3i02.746>
- Nurjanah, Manglapy, Y. M., Pradana PH, F. K., & Belladiena, A. N. (2023). Edukasi Literasi Media Untuk Pencegahan Perilaku Merokok Bagi Guru Di Desa Pendaran Kabupaten Grobogan. *Abdimasku : Jurnal Pengabdian Masyarakat*, 6(2), 505. <https://doi.org/10.33633/ja.v6i2.1270>
- Nurlizawati, N., Harahap, E. W., Putra, D. M., Syafrini, D., & Sylvia, I. (2024). Perilaku Merokok Remaja: Kemiskinan Dan Sikap Permisif. *Jurnal Perspektif*, 7(1), 75–83. <https://doi.org/10.24036/perspektif.v7i1.862>
- Pratama, I. G. E., Triana, K. Y., & Martini, N. M. D. A. (2021). Interaksi Teman Sebaya Berpengaruh Terhadap Perilaku Merokok Remaja Kelas IX Di SMP Dawan Klungkung. *Jurnal Keperawatan Dan Kesehatan Masyarakat Cendekia Utama*, 10(2), 152. <https://doi.org/10.31596/jcu.v10i2.761>
- Rachmat, M., & Aldillah, R. (2016). Agribisnis Tembakau Di Indonesia : Kontroversi Dan Prospek. *Forum Penelitian Agro Ekonomi*, 28(1), 69. <https://doi.org/10.21082/fae.v28n1.2010.69-80>
- Rachmat, M., Syafar, T. R. M., & M. (2013). Perilaku Merokok Remaja Sekolah Menengah

- Pertama. *Jurnal Kesehatan Masyarakat Nasional*, 7(11).
- Ramadona, A., Mellen, R. C., Najiyati, I., Farahdilla, Z. A., & Padmawati, R. S. (2024). Analisis Konten Rokok Di Situs Web Berbagi Video Youtube: User Engagement Analysis. *Jurnal Kesehatan Komunitas*, 9(3), 567–576. <https://doi.org/10.25311/keskom.vol9.iss3.1569>
- Ramza, H. (2022). Kesiapsediaan pendidikan keteknikan menghadapi masyarakat 5.0 untuk menghasilkan teknologi mandiri. *Prosiding Seminar Nasional Teknoka*, 6, 191-207. <https://doi.org/10.22236/teknoka.v6i1.444>
- Ridhoila, I., Yusrawati, Y., & Almasi-Hashiani, A. (2017). Perbandingan Kualitas Spermatozoa Pada Analisis Semen Pria Dari Pasangan Infertil Dengan Riwayat Merokok Dan Tidak Merokok. *Jurnal Kesehatan Andalas*, 6(2), 259. <https://doi.org/10.25077/jka.v6.i2.p259-264.2017>
- Saleh, Y. R., Arya, I. F. D., & Afriandi, I. (2016). Film yang efektif sebagai media promosi kesehatan bagi masyarakat. *Jurnal Sistem Kesehatan*, 2(2). <https://doi.org/10.24198/jsk.v2i2.11245>
- Shofa, F., & Utami, M. A. (2017). Menyingkap Makna Dan Tanda Dalam Iklan Rokok A-Mild Versi “Hasrat”: Kajian Semiotika. *Ranah: Jurnal Kajian Bahasa*, 6(2), 180. <https://doi.org/10.26499/rnh.v6i2.266>
- Siburian, D. P. M., & Siahaan, S. M. L. (2022). Pengaruh Perilaku Merokok Orang Tua Terhadap Kaum Remaja Di HKBP Bagansiapiapi. *Jurnal Christian Humaniora*, 6(2), 16–26. <https://doi.org/10.46965/jch.v6i2.1623>
- Tantri, A., Fajar, N. A., & Utama, F. (2018). Hubungan persepsi terhadap peringatan bahaya merokok pada kemasan rokok dengan perilaku merokok pada remaja laki-laki di kota Palembang. *Jurnal Ilmu Kesehatan Masyarakat*, 9(1). <https://doi.org/10.26553/jikm.2018.9.1.74-82>
- Wijaya, R. D. and Rahman, L. O. A. (2020). Implementasi electronic health records (ehrs) pada pelayanan kesehatan di komunitas: literature review. *Jurnal Kesehatan*, 8(1), 28. <https://doi.org/10.46815/jkanwvol8.v8i1.39>
- Wijaya, T., Nurhadi, N., & Kuncoro, A. M. (2017). Studi eksplorasi perilaku konsumsi rokok: perspektif motif, merek, iklan dan harga-biaya rokok. *Jurnal Economia*, 13(2), 109. <https://doi.org/10.21831/economia.v13i2.12128>
- Zahrani, C. I., & Arcana, I. M. (2021). Determinan Perilaku Remaja Merokok Setiap Hari Di Indonesia. *Seminar Nasional Official Statistics*, 2020(1), 519–528. <https://doi.org/10.34123/semnasoffstat.v2020i1.412>