

Response to Threatening Messages in Anti-Smoking Campaigns

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Abstract

The campaign on the risks and dangers of smoking has become prevalent through social media, including the Instagram account @suara_tanpa_rokok. It is known that there are 56 content pieces with a threatening message approach regarding the risks of smoking from @suara_tanpa_rokok between 2021 and June 2023. The messages and responses to these messages are interesting to explore from a health communication perspective. This study employs the Extended Parallel Process Model (EPPM) as its analytical framework. The quantitative content analysis method was chosen for this research. The results indicate that health campaign content utilizing a threatening message approach on the risks of smoking in @suara_tanpa_rokok elicits an 83.9% maladaptive response. The lack of awareness and willingness to quit smoking contribute to the emergence of this response.

Keywords: *health campaign, threatening message, smoking hazards.*

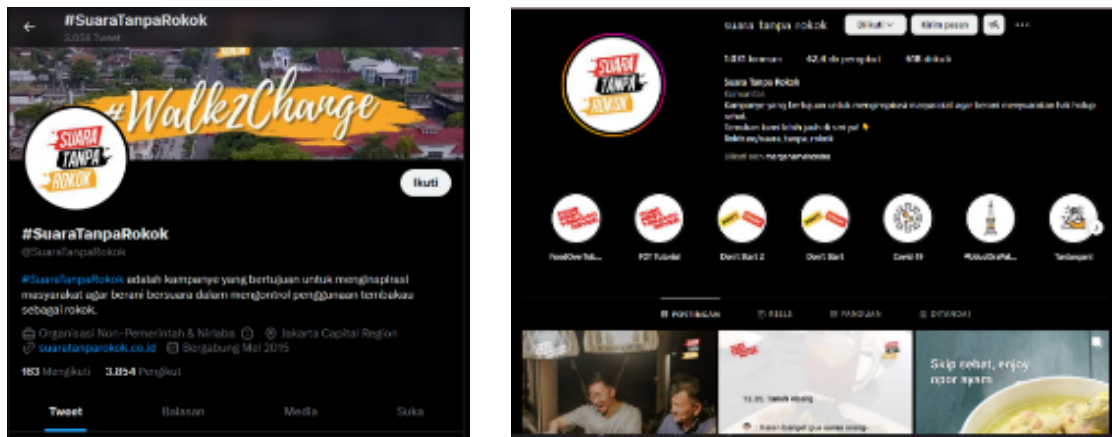
Introduction

The Ministry of Health released data from the Global Adult Tobacco Survey (GATS) on the number of adult smokers in Indonesia, which reached 69.1 million people. When compared to 2011, this number has increased by 8.8 million people. There has also been a trend of increase in the use of electronic cigarettes, with a recorded 10% increase in electronic cigarette users from 2011 to 2021. This condition has increased the number of passive smokers, reaching 120 million (Publik, 2021).

According to the Deputy Minister of Health, Dante Saksono, these facts have driven the Ministry of Health to conduct persuasive campaigns to reduce tobacco use (Publik, 2021). Since 2015, the Ministry of Health has launched the anti-smoking campaign #SuaraTanpaRokok through public service announcements (Indriani, 2015).

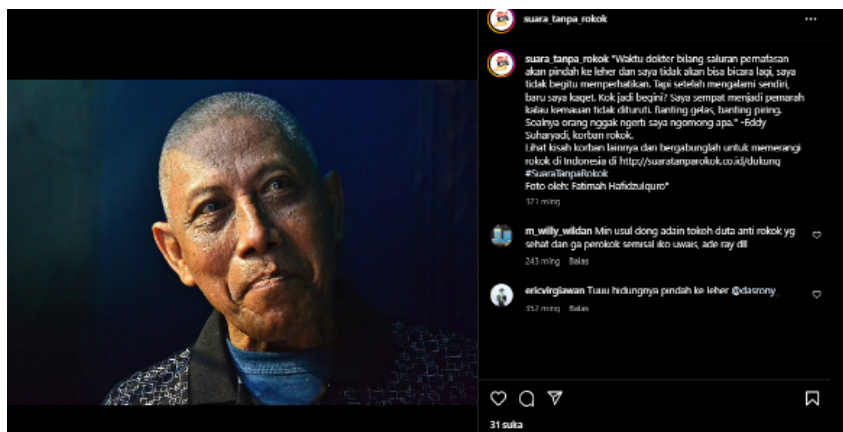
In 2017, the Ministry of Health expanded the #SuaraTanpaRokok anti-smoking campaign through social media platforms such as YouTube, Twitter, Facebook, Instagram, and the website www.suaratanparokok.co.id (Bintari, 2017).

Figur 1. Suara Tanpa Rokok Twitter Account and Suara Tanpa Rokok Instagram Account



The anti-smoking campaign content on the Suara Tanpa Rokok Instagram account is considered attractive due to the packaging of messages in images and videos. The account first uploaded content in 2016. The content focuses on the long-term effects on smokers. It includes a photo of a smoking victim named Eddy Suharyadi. The message in the content narrates the impact of smoking experienced by Eddy, stating that his respiratory passage had to be relocated to his neck (Source: Official Instagram Account of Suara Tanpa Rokok).

Figure 2: First Post by Suara Tanpa Rokok (Source: Screenshot of the Official Instagram Account of Suara Tanpa Rokok)



The Suara Tanpa Rokok account creates engaging content in their campaign by incorporating unique themes and approaches. For instance, they develop motivational content to quit smoking using religious, economic, and social approaches .



Figure 3: Content with a Religious Approach and Figure 4: Content with an Economic Approach

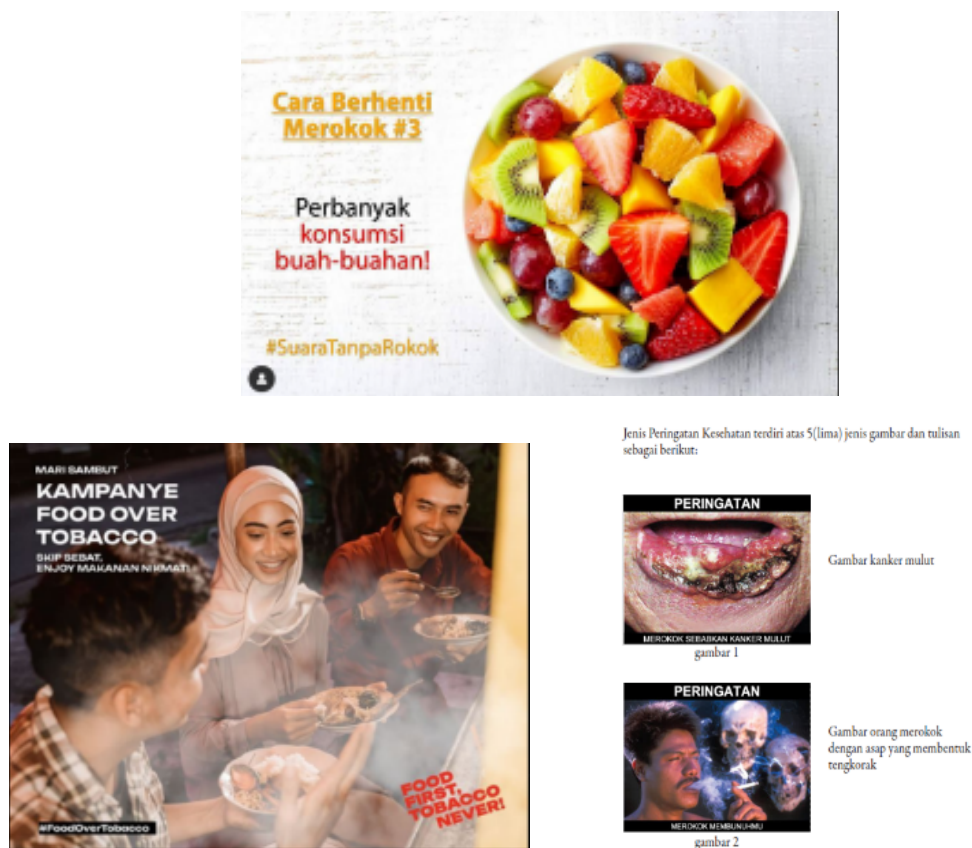


Figure 5: Content with a Social Approach

(Source: research analysis on the Suara Tanpa Rokok Instagram account).

Additionally, there are also contents providing tips to quit smoking. One of the unique recent contents from Suara Tanpa Rokok is themed "food over tobacco".

Figure 6 . Content Featuring Quit Smoking Tips



(Source: research analysis on the Suara Tanpa Rokok Instagram account).

The Indonesian government strives to reduce the high number of smokers through regulations and policies. This is outlined in the Ministry of Health Regulation No. 28 of 2013 concerning including health warnings and health information on tobacco product packaging. This Ministry regulation defines health warnings as images or texts that provide information about the dangers of smoking (KemenkesRI, 2013). This policy underlies the inclusion of threat-based messages on cigarette packaging in Indonesia.

Contents with messages about the dangers of smoking can also be found on the official Suara Tanpa Rokok Instagram account. In 2021, there were a total of 32 contents. In 2022, there were 19 contents. Meanwhile, as of June 2023, 19 contents were found (source: preliminary research data).



Figure 7. Dangers of Smoking in 2021 and Figure 8. Dangers of Smoking in 2022



Figure 9. Dangers of Smoking in 2023

Source: Screenshot of the Official Instagram Account of Suara Tanpa Rokok.

According to Pradita (2014), graphic health warning messages on cigarette packaging positively impact smokers' motivation to quit smoking. Meanwhile, according to Putri et al. (2021), attitudes toward the issue and personal relevance are the factors that most influence the acceptance of persuasive messages in anti-smoking public service advertisements with #SuaraTanpaRokok on YouTube and Twitter. Message repetition is a practical step in persuading the audience (Putri et al., 2021).

A study on a health campaign related to threat messages was conducted by Harijadi et al. in 2022. The study aimed to determine the influence of cigarette packaging's impact on campaign messages on the attitudes of adult smokers in Surabaya. The results showed that image-based campaign messages on cigarette packaging did not influence smokers' attitudes (Harijadi et al., 2022). Meanwhile, Utami, & Yustitia (2017) examined *health communication strategy and inhibitions in the program of sexual and reproductive health (KesPro) performed by Sentra Advokasi Perempuan, Difabel dan Anak (SAPDA) in Yogyakarta*.

This is similar to research conducted by Haq and Muhajir (2020), which stated that to educate the issue of early marriage in Banguntapan, Bantul, the Bantul Regency Government delivered a message with a focus on the dangers and impacts of having sex at an early age.

Another study was conducted by Zarghami et al. in 2022. They assumed that there is limited literature discussing the impact of threat messages on lung cancer risk perception among smokers. The study concluded that threat messages and the benefits of quitting smoking are essential for smokers with low readiness to quit, while messages highlighting the benefits of quitting smoking are most important for smokers with high readiness to quit (Zarghami et al., 2021).

Furthermore, the Extended Parallel Process Model (EPPM) has been frequently used to study health communication topics. For example, a study conducted by Fernando in 2021 used the EPPM to examine people's compliance with Covid-19 health protocols through high-threat and high-efficacy posters. This study showed that providing high-threat and high-efficacy posters significantly influenced the attitude aspect of compliance with Covid-19 health protocols. The audience perceived the Covid-19 threat depicted in the posters as significant (Fernando, 2021).

Another study that utilized the Extended Parallel Process Model was conducted by Meadows et al. They used the EPPM and framing to analyze Facebook messages from the Centers for Disease Control and Prevention (CDC) and state and local health departments in the United States for health education and promotion. Meadows' study showed that CDC Facebook messages use gain-loss framing, while state health departments are more inclined to use gain framing (Meadows et al., 2020).

Based on the above explanations, it would be interesting to examine the messages and responses to health warnings in the Suara Tanpa Rokok content, which

carries the dangers of smoking. This study intends to use the Extended Parallel Process Model as the analytical framework. This selection is appropriate because the Extended Parallel Process Model facilitates a detailed analysis of audience responses to health campaign messages that emphasize threat messages and their influencing factors.

In terms of theoretical framework, Kim Witte developed the Extended Parallel Process Model (EPPM). Witte developed the EPPM to explain how people manage the fear generated by threat messages. According to Witte, fear is a primary motivator of healthy behavior. It is often used in messages found in communication campaigns to promote prosocial and healthy behavior or prevent antisocial and unhealthy behavior (Littlejohn et al., 2017).

Theoretically, fear is expected to influence people's behavior to avoid actions that harm their health. However, sometimes people still engage in harmful behaviors despite the fear-inducing messages. The EPPM attempts to explain how fear can be managed to produce proactive attitudes, healthy behaviors, and self-protection for individuals exposed to the message (Littlejohn et al., 2017).

According to Witte, individuals have three responses to fear-inducing messages: *First*, individuals may choose not to respond to the message. This non-response type occurs when the audience is indifferent or unconcerned about the message because they do not feel connected (Littlejohn et al., 2017).

Second, individuals may adopt fear control. Fear control is a response that involves controlling fear in the face of the threat. This response is taken when individuals feel they cannot control what happens to them. Instead, they control their fear by ignoring the message and not allowing it to affect their daily lives. In this second response, individuals actively ignore and deny the message (Littlejohn et al., 2017).

Third, individuals may adopt danger control. Danger control occurs when individuals feel they can control what happens to them. They take action to reduce the threat that poses a health problem, such as seeking information, sharing experiences related to health issues with family or healthcare providers, or discussing specific preventive actions for health problems (Littlejohn et al., 2017).

In detail, Witte identified three factors that shape an individual's response to fear-inducing messages: perceived threat and efficacy. *First*, perceived threat refers to

individuals' perceived vulnerability to harm. This factor consists of two components: severity and susceptibility. Severity is the seriousness of the harm or threat, while susceptibility is the perceived likelihood of experiencing harm (Littlejohn et al., 2017).

Second, perceived efficacy or benefits refers to how individuals feel capable of performing specific behaviors to avoid the threat. This factor consists of two components. The first is response efficacy, which refers to whether individuals believe a particular action will effectively avoid the threat. The second is self-efficacy, which is the belief that individuals can perform the recommended action (Littlejohn et al., 2017).

Finally, the combination of perceived threat and perceived efficacy or benefits influences three responses: non-response, fear control, and danger control. Witte describes that when individuals have a low perceived threat, there is no response to the message. When individuals perceive the threat, they are motivated to take action. If individuals perceive positive effects from the threatening message, it is projected to influence responses to form fear or control danger. This model suggests that messages need to make people aware of the threat and increase efficacy (the positive impact/benefits of the threat message) to encourage the acceptance of actions to reduce the threat (Littlejohn et al., 2017).

Method

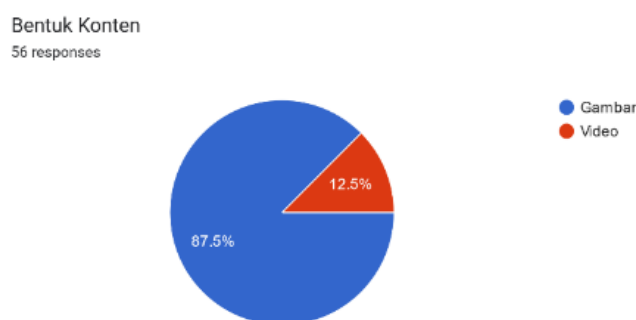
This study uses a quantitative content analysis method to examine the health campaign urging smoking cessation on the Instagram account @Suara_Tanpa_Rokok. According to Eriyanto, this method examines visible messages and describes them objectively and systematically (Eriyanto, 2011). The object of this research is the content of @Suara_Tanpa_Rokok with threat-based messages from 2021 to April 2023. There are 57 warning messages containing threats that highlight the dangers of smoking. This research employs the recording unit as the analysis unit. The study utilizes content validity testing and involves two independent coders. The intercoder reliability is employed for the reliability test. The measurement focuses on three types of audience responses to health campaign messages regarding the threat of smoking.

Discussion

1. Content Format

Based on observations on the official Instagram page @suara_tanpa_rokok from 2021 to June 2023, there were 56 pieces of content with threat-based messaging. These messages were designed to promote the health campaign for smoking cessation. Image-based content accounted for 87.5% of the total, while video-based content accounted for 12.5%.

Figure 10. Diagram of Content Types on @suara_tanpa_rokok.



Source: Research Data Analysis

The study results show that the content of the smoking cessation campaign at @suara_tanpa_rokok is dominated by image content. This condition is also found in the online anti-gender-based violence campaign "Awas KBGO!" by SafeNet. Image-shaped content is considered appropriate for campaign messages because Instagram's content priority is image-shaped content (Ratnasari et al., 2020).

Meanwhile, in 2023, the CEO of Instagram, Adam Moserri, stated that he would provide a balance in presenting photo and video-based content. On the other hand, Meta executives stated that Instagram would continue to provide content in the form of videos to encourage user engagement (Saskia, 2023). Seeing this fact, message producers ideally need to adapt to the development of features in their message distribution channel applications. In this case, Instagram, it is known that each time has a changing algorithm. Therefore, if you want campaign messages to be received effectively by your audience, message producers need to adapt to these dynamics. This condition

encourages the production of messages in various variations, such as content in the form of feeds, stories, and reels.

2. Content Sources

@suara_tanpa_rokok presents messages about risks and threats to active and passive smokers accompanied by credible sources. For example, from research findings, government regulations, or recommendations from global health organizations. Out of the 56 posts with a risk-based approach to the dangers of smoking, it is known that 38 messages had transparent sources, while 18 messages did not have a source mentioned. This means that credible and clear sources support 67.9% of the threat-based content on @suara_tanpa_rokok. The following diagram illustrates the results:

Figure 11. Diagram of Content with Credible Sources



Source: Research Data Analysis

The credibility of sources in health campaigns is crucial. This condition is also found in health promotion campaigns related to vaccines. According to a study by Jennings and Russell, source credibility and politeness during discussions indirectly influence support for vaccination-requiring policies, intentions to vaccinate children, and willingness to engage in vaccine-related discussions (Jennings & Russell, 2019).

3. Interaction

a. Like

The highest number of likes on the @suara_tanpa_rokok account for a post about the risks and threats of smoking reached 2405. This response was obtained in a post dated July 28, 2021. The post was in the form of an image with the core message being the comparison of a Covid-19 patient struggling to breathe amid a limited oxygen supply. On the other hand, many smokers are still actively smoking without worrying about the consequences they will face. However, cigarette smoke can decrease lung function.

Figure 12. Comparison of Images Between COVID-19 Patients and Active Smokers



Source: Screenshot from the @suara_tanpa_rokok account.

The content attracted the attention of the audience with 130 comments. The results showed 70 comments in the form of mentions from followers of @suara_tanpa_rokok to their close contacts who were considered at the same risk mentioned in the post. Additionally, 20 comments challenged the message, stating that active smokers maintain good physical condition despite being at high risk of Covid-19. Meanwhile, there were 34 comments agreeing with the message, sharing personal experiences of quitting smoking after experiencing Covid-19 symptoms. Some comments also criticized the selfishness of active smokers who continue to smoke in public places amidst the pandemic.

b. Comment

Meanwhile, the highest number of comments was found on the content posted on August 4, 2021. The post was in the form of a video highlighting the health risks caused by smoking. This content captured the audience's attention with a total of 142 comments. In addition, 90 comments on this post were unrelated to the content's message. These comments were in the form of mentions of the names of followers' acquaintances who were considered at the same risk as the message conveyed in the content.

Figure 13. Content from @suara_tanpa_rokok in the form of a video on August 4, 2021.



Source: Screenshot from the @suara_tanpa_rokok account.

Furthermore, 11 comments presented opposing arguments on the content, such as comments stating that smoking can help relieve stress. Meanwhile, 45 comments agreed with the message of the content. For example, they provided evidence by sharing personal health experiences affected by smoking. Some expressed gratitude for successfully quitting and being free from smoking. They also responded to comments from pro-smoking accounts.

The activities of followers on the @suara_tanpa_rokok account, such as likes, comments, shares, views, saves, and reposts, are indicators of successful engagement with the content (Fikriansyah, 2022). Engagement is

essential in conducting social media campaigns (Qothrunnada, 2022). The discovery of content with the highest number of likes and comments in the campaign messages of @suara_tanpa_rokok using the risk-threat approach can be interpreted as achieving the ultimate goal, which is the audience's engagement on social media platforms.

4. Response to messages with the threat value of the risks of smoking

a. Followers who do not comment or like

@suara_tanpa_rokok has 42,700 followers. However, not all followers respond by commenting or liking the content with messages about the threat value of the risks of smoking. This can be observed from the number of likes on the 56 content posts, which reaches a different number than the followers of the @suara_tanpa_rokok account. Based on the data, 96.4% of respondents did not comment or like the posts from @suara_tanpa_rokok with the threat value approach to the risks of smoking. According to the Extended Parallel Process Model (EPPM), this attitude can be interpreted as non-response. Here is an explanation of this phenomenon:

No Respon: Ada pengikut @suara_tanpa_rokok yang tidak memberi komentar atau like konten tersebut.

56 responses

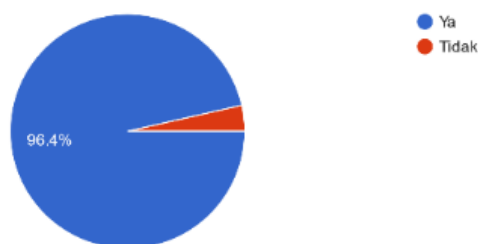


Figure 14. Percentage of followers who did not respond to the content.

Source: Research Data Analysis

b. Contradictory comments

Based on the analysis, in the content with the approach of threatening the risks of smoking on the @suara_tanpa_rokok account, there are comments from followers that contradict the message. In the overall interactions, it is

found that 83.9% of the comments contradict the content with the threat-based approach. This type of comment is often found in the content posted on January 10, 2023. The content is an image with a message about the danger of vape explosions that can harm users. This post garnered attention from the audience with 81 comments, of which 48 comments contradicted or denied the message, such as mentioning other more dangerous items than vaping.

These contradicting responses are forms of maladaptive responses caused by fear control. This occurs when the perceived threat exceeds the perceived effectiveness (Maloney et al., 2011). Similar situations were also found in a study conducted by Wehbe et al., which stated that active smokers were more likely to have maladaptive reactions to counter-tobacco advertisements compared to non-smokers (Wehbe et al., 2017). However, Witte suggests that if such situations are encountered, using efficacy-based approaches is recommended to create compliance or adaptive responses in health campaigns (Maloney et al., 2011). In this study, it is highly likely that such situations exist, considering the close relationship between Indonesian society and smoking. Several studies have revealed that smoking is a cultural norm in Indonesian society (Isma Aryani & Satrio Budi Nugroho, 2021).

Figure 15. Percentage of comments contradicting the message.



Source: Research Data Analysis

c. Supporting comments

Overall, the percentage of comments that agree, support, or endorse the content of @suara_tanpa_rokok with the approach of threatening the risks of

smoking is around 78%. This number is lower compared to the maladaptive and no-response categories. Supporting comments are often found in the July 28, 2021 content. The post is an image with the core message about the risks of smoking during the COVID-19 pandemic. The agreement with the threatening message is expressed by affirming the content, stating the intention to quit smoking, sharing experiences of quitting smoking, and criticizing the selfishness of active smokers. These responses can be interpreted as forms of danger control. The emergence of these responses is influenced by two factors: awareness of the dangers of smoking and the desire to quit smoking. Similar findings were reported in a study conducted by Owusu et al., which revealed adaptive responses of smokers to cigarette warning labels. Adaptive responses were associated with the possibility of motivation to quit smoking. Additionally, visual messages were adequate for eliciting adaptive responses (Owusu et al., 2019).

Conclusion

The threat approach to campaign against the risks and dangers of smoking in health communication has been frequently used in Indonesia. This can be seen, for example, in the regulations that require the inclusion of text and image warnings about the dangers of smoking. Additionally, campaigns addressing the dangers of smoking are also conducted digitally through social media. However, compliance with these health campaigns is still considered minimal among the Indonesian population. The perception of smoking influences this condition as a cultural norm, a stress reliever, and a lifestyle choice.

References

- Bintari, N. R. (2017). Kampanye Baru Anti Rokok. *Mix.Co.Id*. <https://mix.co.id/marcomm/news-trend/kampanye-baru-anti-rokok/>
- Eriyanto. (2011). *Analisis Isi: Pengantar Metodologi untuk Penelitian Ilmu Komunikasi dan Ilmu-ilmu Sosial Lainnya*. Kencana Prenada Media Group.
- Fernardo, E. (2021). Experimental Study to Improves Covid-19 Health Protocol Compliance with High Threat and High Efficacy Poster. *Jurnal Komunikasi*, 13(2), 184. <https://doi.org/10.24912/jk.v13i2.11383>.

- Fikriansyah, I. (2022). Mengenal Apa Itu ER dan Cara Meningkatkan Engagement Instagram. *Finance.Detik.Com*. <https://finance.detik.com/solusiukm/d-6287522/mengenal-apa-itu-er-dan-cara-meningkatkan-engagement-instagram>.
- Harijadi, I., Priyowidodo, G., & Yoanita, D. (2022). Sikap di Kalangan Perokok Dewasa di Surabaya tentang Pesan Kampanye Akibat Merokok di Bungkus Rokok. *Jurnal E-Komunikasi*. <https://publication.petra.ac.id/index.php/ilmu-komunikasi/article/view/13226%0Ahttps://publication.petra.ac.id/index.php/ilmu-komunikasi/article/viewFile/13226/11486>.
- Haq, MF and Muhajir, M. (2020). Health Communication Literacy of Adolescent Reproductive System in Bantul Regency Yogyakarta. *The Indonesian Journal of Communication Studies, Vol. 13(2)*, pp. 88-98.
- Indriani, R. (2015). Angkat Kisah Robby, Kemenkes Luncurkan Kampanye Ini. *Suara.Com*. <https://www.suara.com/health/2015/09/29/200644/angkat-kisah-roby-kemenkes-luncurkan-kampanye-ini>.
- Isma Aryani, D., & Satrio Budi Nugroho, K. (2021). Tinjauan perubahan desain kemasan sigaret kretek di Indonesia. *Fakultas Seni Rupa Dan Desain, Univ. Kristen Maranatha Jl. Prof. Drg. Suria Sumantri, 05(65)*, 45–57. <https://bit.ly/jurnalbahasarupa>
- Jennings, F. J., & Russell, F. M. (2019). Civility, credibility, and health information: The impact of uncivil comments and source credibility on attitudes about vaccines. *Public Understanding of Science, 28(4)*, 417–432. <https://doi.org/10.1177/0963662519837901>.
- KemenkesRI. (2013). Permenkes RI No. 28 Tahun 2013. In *Kementrian Kesehatan Republik Indonesia*.
- Littlejohn, S. W., Foss, K. A., & Oetzel, J. G. (2017). Theories of Humas Communication. In *Journal of Chemical Information and Modeling (Vol. 53, Issue 9)*.
- Madonna, M., Reza, F., Sovianti, R., & Widayari, D. A. (2022). Popularitas, Kompetensi dan Perilaku sebagai Indikator Kredibilitas Influencer Ketahanan Kesehatan Masyarakat Menghadapi Pandemi Covid-19. *Warta ISKI, 5(1)*, 72–80. <https://doi.org/10.25008/wartaiski.v5i1.147>.
- Maloney, E. K., Lapinski, M. K., & Witte, K. (2011). Fear appeals and persuasion: A review and update of the extended parallel process model. *Social and Personality Psychology Compass, 5(4)*, 206–219. <https://doi.org/10.1111/j.1751-9004.2011.00341.x>.
- Mandasari, Pratiwi Rika, Yenni Sri Utami, & Senja Yustitia. Communication Strategy On Sexual And Reproduction Health For Adolescents Diffable In Yogyakarta. *The Indonesian Journal of Communication Studies. Vol. 10. No. 2. 2017. Jurusan Ilmu Komunikasi FISIP UPN Veteran Yogyakarta*.

- Meadows, C. Z., Meadows, C. W., & Tang, L. (2020). The CDC and State Health Department Facebook Messages: An Examination of Frames and the Extended Parallel Processing Model. *Communication Studies*, 71(5), 740–752. <https://doi.org/10.1080/10510974.2020.1819839>.
- Owusu, D., So, J., & Popova, L. (2019). Reactions to tobacco warning labels: predictors and outcomes of adaptive and maladaptive responses. *Addiction Research and Theory*, 27(5), 383–393. <https://doi.org/10.1080/16066359.2018.1531127>.
- Paramasari, S. N., & Nugroho, A. (2021). Strategi Komunikasi Kesehatan dalam Upaya Membangun Partisipasi Publik pada Masa Pandemi Covid-19. *Jurnal Lensa Mutiara Komunikasi*, 5(1), 123–132. <https://doi.org/10.51544/jlmk.v5i1.2036>.
- Pradita, SA. (2014). *Pengaruh Peringatan Kesehatan Bergambar Pada Kemasan Rokok Terhadap Motivasi Perokok Untuk Berhenti Merokok*. 1–12.
- Publik, B. K. dan P. (2021). *Temuan Survei GATS: Perokok Dewasa di Indonesia Naik 10 Tahun Terakhir*. Kementerian Kesehatan RI. <https://www.kemkes.go.id/article/view/22060200005/temuan-survei-gats-perokok-dewasa-di-indonesia-naik-10-tahun-terakhir.html>.
- Putri, C. N. D., Wahid, A. G. A., & Irwansyah, I. (2021). Penerimaan Pesan Persuasif dari Perspektif Elaboration Likelihood Model: Iklan Layanan Masyarakat Himbuan Berhenti Merokok. *Jurnal Lensa Mutiara Komunikasi*, 5(2), 9–23. <https://doi.org/10.51544/jlmk.v5i2.1673>.
- Qothrunnada, K. (2022). Pentingnya Engagement di Media Sosial & Cara Mengukurnya. *Finance.Detik.Com*. <https://finance.detik.com/solusiukm/d-6353918/pentingnya-engagement-di-media-sosial--cara-mengukurnya>.
- Ratnasari, E., Sumartias, S., & Romli, R. (2020). Penggunaan Message Appeals dalam Strategi Pesan Kampanye Anti Kekerasan Berbasis Gender Online. *Jurnal Ilmu Komunikasi*, 18(3), 352. <https://doi.org/10.31315/jik.v18i3.3844>.
- Saskia, C. (2023). Instagram Akui Kebanyakan Suguhkan Konten Video, Ini Janji CEO. *Kompas.Com*. <https://tekno.kompas.com/read/2023/01/26/07250047/instagram-akui-kebanyakan-suguhkan-konten-video-ini-janji-ceo?page=all>.
- Wehbe, M. S., Basil, M., & Basil, D. (2017). Reactance and Coping Responses to Tobacco Counter-Advertisements. *Journal of Health Communication*, 22(7), 576–583. <https://doi.org/10.1080/10810730.2017.1329853>.
- Zarghami, F., Allahverdipour, H., & Jafarabadi, M. A. (2021). Extended parallel process model (EPPM) in evaluating lung Cancer risk perception among older smokers. *BMC Public Health*, 21(1), 1–11. <https://doi.org/10.1186/s12889-021-11896-1>.