

EFFORTS TO ADDRESS SMOKING'S IMPACT THROUGH EDUCATION USING SHORT FILMS, SMOKER TESTIMONIALS, AND SIMULATIONS OF ITS EFFECTS ON LUNG HEALTH

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Abstract

Smoking behavior is the act of inhaling smoke from burning tobacco and then exhaling it. This community service (PkM) project aims to educate residents of RW 11, Bangetayu Kulon Village, Semarang City, about the effects of smoking through a short film, testimonials from former smokers, and a simulation demonstrating the impact of smoking on lung health. The intervention was attended by 56 participants and included the following activities: (1) health checks, which involved measuring blood pressure and conducting random blood sugar tests; (2) a pre-test to assess participants' knowledge of smoking hazards using a questionnaire; (3) screening of the short film; (4) a health education session on the dangers of smoking; (5) a simulation using simple tools to help participants better understand smoking hazards; (6) a testimonial interview with a former smoker; and (7) a post-test to evaluate participants' knowledge levels. The success of the education initiative was measured with a questionnaire consisting of ten questions for participants. The evaluation indicated that the PkM team's efforts significantly enhanced participants' knowledge ($p < 0.05$). Pre-intervention scores (pre-test) averaged 80.17 ± 9.24 , while post-intervention scores (post-test) averaged 94.82 ± 6.6 , reflecting an 18.27% increase in knowledge among the RW 11 residents of Bangetayu Kulon Village. Ideally, family members and stakeholders should follow up on this PkM outcome to monitor adherence to smoking cessation.

Keywords: Education, Knowledge, Smoking, Short Film, Simulation, Testimony

INTRODUCTION

Smoking is the act of inhaling smoke from burning tobacco and exhaling it. Worldwide, there are approximately 1.2 billion smokers, with 800 million of them in low- and middle-income developing countries (WHO 2018). Indonesia ranks as the third-largest smoking nation after China and India. The Indonesian National Health Survey reported a smoking prevalence of 33.8% among those aged 15 and over, with an increase in smoking among those

aged 10-18 from 7.2% in 2018 (Haryati et al., 2015).

Smoking causes addiction, reduces concentration, lowers physical fitness, and adversely affects health (Hilmi et al., 2018). Therefore, it is essential to educate active smokers about the impact of smoking, especially in Bangetayu Kulon Village.

Bangetayu Kulon is a village in Genuk District, Semarang City, with 11 RWs and 97 RTs. A survey of 68 male residents in RW 11 revealed that most (64.7%) had a high school or vocational education, 70.6% were aged 15-49, 82.4% were married, and 52.9% were private employees. Many male residents of this RW smoke due to a lack of knowledge about smoking's health impact on themselves and their families. Therefore, preventive efforts are necessary in RW 11.

This PkM project aims to increase awareness about the health effects of smoking for RW 11 residents. It is also expected to contribute to the goals of the Indonesian Health Program through the Family Approach (PIS-PK), which is precisely the target of reducing smoking within families.

IMPLEMENTATION METHOD

The community service (PkM) project was conducted in RW 11, Bangetayu Kulon, Semarang City, by a team of medical students from the Department of Public Health, accompanied by two supervising lecturers and representatives from the Bangetayu Public Health Center. The project comprised three stages:

(1) Preparation: A survey was conducted to assess community health through blood pressure checks and a smoking perception questionnaire via Google Form (Figure 1a). The survey, conducted on October 15, 2024, involved 68 men, divided equally into smokers and non-smokers. On October 18, 2024, a village community discussion (MMK) followed, attended by community leaders and other stakeholders, to agree on a Plan of Action (PoA) (Figure 1b).



(a)



(b)

Figure 1. Preparation step: (a) survey to the smokers, (b) Village Community Discussion (MMK)

- (2) **Implementation:** The smoking impact education took place on October 26, 2024, and 56 participants attended. Educational activities included health checks, a pre-test knowledge assessment, a short film screening, health education, a smoking hazard simulation, testimonial interviews, and a post-test.
- (3) **Evaluation:** The success of the education was measured using a 10-item questionnaire. The pre-test scores were compared with post-test scores, analyzed using the Wilcoxon Test due to non-normal data distribution, and processed with SPSS 25.0.

RESULTS AND DISCUSSION

The educational theme, “ARJUNA: Anti-Smoking Guarantee for a Comfortable and Happy Life,” attracted 56 participants, equally male and female, with an average weight of 64 kg. Blood pressure results showed that 13 participants had normal blood pressure, while 48 were hypertensive, and their average random blood sugar level was 151 mg/dl.

The educational session began with a short film (YouTube link: <https://youtu.be/eee8yqp-swU>) performed by the implementing team. The film illustrated the effects of smoking on passive smokers, particularly family members. Participants observed the film (Figure 2). Research by Sindy (2021) showed that educational films on smoking hazards could increase knowledge and attitudes by 98.7% and improve behavior by 25.8% (Listiana & Fenti Yulianti 2021).



Figure 2. Educational session through watching a short movie played by the PkM team

The education session was led by two team members, covering topics like smoking definitions, types of cigarettes, cigarette contents, smoking hazards, health effects on smokers, marketing targeting teens, factors encouraging smoking, and smoking cessation techniques. An interactive presentation with images highlighting smoking hazards was provided, and participants engaged actively in a Q&A session. In addition to film and lectures, a smoking hazard simulation using a simple bottle-lung model was provided (Figure 3a). To further encourage smoking cessation, a testimonial from a former smoker, the head of RT 03, was shared. In it, he discussed his experience of quitting after 15 years (Figure 3b). This testimony aimed to motivate participants to quit, supporting research by Arsari et al. (2021) on the effectiveness of subconscious suggestions in smoking cessation.



(a)



(b)

Figure 3. (a) Presentation and discussion with the speakers. (b) Testimony and sharing sessions with smokers who can quit smoking.

Evaluation results showed that the education program significantly improved participant knowledge ($p < 0.05$), with pre-intervention scores of 80.17 ± 9.24 and post-intervention scores of 94.82 ± 6.6 (Figure 4). This aligns with research by Kasman et al. (2017), which supports the effectiveness of educational videos in increasing knowledge of smoking dangers. Additionally, the bottle-lung model effectively demonstrated the respiratory effects of smoking (Dewi et al., 2022).

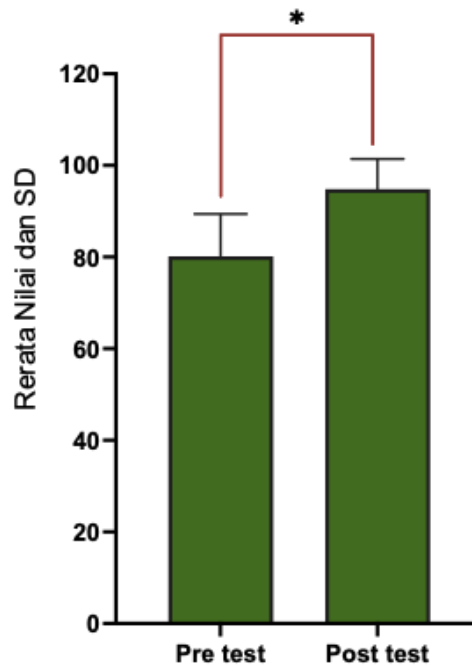


Figure 4. The effect of education on the pre and test result of knowledge (*significantly different with Wilcoxon test)

CONCLUSION

Education on the health impacts of smoking successfully raised awareness among the residents of RW 11, Bangetayu Kulon Village, Semarang City, by 18.27%. Family members and stakeholders should monitor adherence to smoking cessation to sustain this program's outcomes.

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