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Oral Health Knowledge Improvement Through Drama-Based Education in Elementary School Students

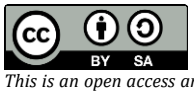
Revi Jayanti[1], Indrayati Fadjeri[2]

[1,2] Department of Dental Health, Polytechnic Health of Jakarta I, Indonesia

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ABSTRACT

Background: Oral health is a critical aspect of children's overall health, particularly during school age, with dental caries being a common problem. Knowledge of oral health is essential in shaping behaviors that promote proper dental hygiene. Objective: To assess the oral health knowledge of Grade V students at SDN Ratu Jaya 01 before and after an educational intervention using drama-based learning. Method: A pre-eksperimental study was conducted involving 60 students selected via total sampling. Data were collected using a structured questionnaire. Results: The findings revealed a significant improvement in students' knowledge of oral health maintenance after the intervention. Prior to the drama-based educational session, many students demonstrated low levels of knowledge, whereas the majority exhibited good knowledge afterward. Conclusion: Drama-based learning is an effective medium to enhance oral health knowledge among elementary school students.

INTRODUCTION

Oral health is a crucial component of overall well-being, particularly for children, as it supports essential functions such as chewing, speaking, and maintaining facial structure (Kasihani & Purnama, 2021). Maintaining optimal oral health requires proper care, including a balanced diet with limited sugary and sticky foods, effective removal of plaque and food debris through correct brushing techniques, and professional dental interventions such as scaling, cavity fillings, and extraction of non-restorable teeth to prevent focal infections (Nurilawaty et al., 2021). Routine dental check-ups every six months are recommended to ensure the early detection and management of oral health issues (Erdiyani et al., 2023).

According to the World Health Organization, oral diseases are a major public health concern worldwide, although they are often underrecognized. Globally, nearly 3.5 billion people are affected, with three-quarters of those living in middle-income countries. Oral diseases comprise a diverse group of conditions, each with distinct etiologies and burdens, as well as various options for prevention, treatment, and rehabilitation. Among these, the most prevalent and burdensome conditions include untreated primary and permanent dental caries, severe periodontal disease, edentulism (complete tooth loss), and lip and oral cavity cancers (World Health Organization, 2022).

Based on the 2023 Indonesian Health Survey, the prevalence of dental and oral problems in West Java among children aged 10-14 years was 48.8%, but only 82.7% received medical treatment from Indonesian medical personnel for dental and oral health problems such as tooth decay, cavities, or pain (Kemenkes, 2023).

Primary school children are in a developmental stage that differs from other age groups, with unique learning needs and characteristics (Lestari et al., 2022). To enhance knowledge and raise awareness of the importance of maintaining oral hygiene, oral health education should be conducted using methods tailored to the target audience (Tsakila & Purnama, 2025). In delivering oral health education, the use of media plays a crucial role in its effectiveness, as it supports the learning process and facilitates students' understanding of the material (Purnama T, Rasipin, 2020). Additionally, media can make the messages more engaging and easier to comprehend (Abral et al., 2020).

*Corresponding author
E-mail addresses: revijayanti09@gmail.com

The drama-based learning model is an educational activity in which students learn about oral health through drama. This approach makes the learning process enjoyable by integrating education with entertainment. Drama often incorporates music and singing, which can capture children's attention and stimulate their imagination, making it easier for them to absorb the material. This method is expected to enhance knowledge and positively influence children's behavior, thereby improving oral health outcomes (Karavoltsou, 2014)..

A study by concluded that educational drama is suitable as a learning tool for teaching oral health maintenance to school-aged children, with validated content and media and positive responses from students (Shirahmadi et al., 2024). Similarly, (Octavianita et al., 2024) that game-based media effectively increased students' knowledge.

METHOD

This study employed a pre-experimental design with a pre-test and post-test approach. Total sampling was used, with the sample consisting of all 60 Grade V students at SDN Ratu Jaya 01. Data were collected using pre-test and post-test questionnaires.

The data collection procedure involved several steps. Initially, permission was obtained from the school principal, and consent forms were distributed to the students. On the second day, the researcher introduced themselves and administered the pre-test, which took approximately 10 minutes. This was followed by a 30-minute drama-based educational intervention, after which a 30-minute break was provided. Finally, the post-test was conducted to assess changes in students' knowledge.

The data collected from the questionnaires were then processed and analyzed to determine the students' level of knowledge regarding oral health maintenance and were presented in tabular form to provide a clear depiction of the variables studied.

RESULT

Table 1. Distribution of Oral Health Knowledge Levels Before Drama-Based Intervention

Knowledge Level	Frequency (n)	Percentage (%)
Good	15	25
Moderate	31	51.7
Poor	14	23.3
Total	**60**	**100**

Table 1 shows that before the drama-based intervention, the majority of Grade V students at SDN Ratu Jaya 01 had moderate knowledge of oral health maintenance (51.7%). Students with good knowledge comprised 25% of the class, while 23.3% had poor knowledge. These results highlight the need for educational interventions to improve oral health awareness among students.

Table 2. Distribution of Oral Health Knowledge Levels After Drama-Based Intervention

Knowledge Level	Frequency (n)	Percentage (%)
Good	55	91.7
Moderate	5	8.3
Poor	0	0
Total	**60**	**100**

Table 2 shows that after participating in the drama-based intervention, a majority of students (91.7%) demonstrated good knowledge of oral health maintenance. Only 8.3% of students were in the moderate category, and no students were classified as having poor knowledge. This indicates that the drama-based educational method effectively increased students' understanding of oral health.

DISCUSSION

The study on oral health knowledge among Grade V students at SDN Ratu Jaya 01 in 2025 showed a significant increase after drama-based education. Before the intervention, 15 students (25%) had good knowledge, 31 students (51.7%) had moderate knowledge, and 14 students (23.3%) had poor knowledge. After the drama intervention, 55 students (91.7%) had good knowledge, 5 students (8.3%) had moderate knowledge, and none had poor knowledge. This indicates a clear improvement, with poor knowledge dropping from 23.3% to 0%, moderate knowledge from 51.7% to 8.3%, and good knowledge increasing from 25% to 91.7%.

These results align with (Puteri & Emini, 2023), who found that storytelling methods significantly improved oral health knowledge, with the majority achieving high knowledge levels post-intervention

compared to moderate knowledge pre-intervention. A study by (Khairani et al., 2017) comparing the effectiveness of oral health education using storytelling versus role-playing among Grade 3 elementary students found that role-playing (drama) was more effective. Students in the drama group demonstrated higher knowledge, increasing from 68.89% pre-intervention to 86.85% post-intervention, compared to the storytelling group, which increased from 64.81% to 79.07%.

When compared with previous studies using drama-based learning media, this research shows similar results in increasing knowledge. According to (Khairani et al., 2017), drama is an effective classroom method because it engages students by connecting lessons to everyday life experiences. Role-playing (drama) allows children to actively observe, experience, and internalize social behaviors, creating a lively learning environment and fostering critical thinking. This method aligns with the characteristics of elementary school students, who enjoy play, observation, and exploration, providing opportunities to develop imagination through enacting characters in scripted scenarios.

CONCLUSION

Based on the research results, it can be concluded that drama-based education effectively improved students' oral health knowledge, increasing those with good knowledge from 25% before the intervention to 91.7% afterward.

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