



THE EFFECT OF AUDIOBOOK MEDIA ON TEENAGERS KNOWLEDGE ABOUT GASTRITIS AT SMAN 04 BENGKULU CITY

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Abstract

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Data from the Bengkulu Provincial Health Office states that gastritis sufferers in this province amount to 45,316 people, making gastritis the disease with the highest number of cases in the region. Gastritis is still included in the top 10 most common diseases in Bengkulu City. This study was conducted on grade XI students of SMAN 04 Bengkulu City and was carried out on May 24 to June 4, 2025. The type of research is quantitative with a one group pre-test and post-test design. The number of samples is 44 people determined by simple random sampling technique. The analysis used is bivariate using the independent t-test. The results of the study obtained a p-value of $0.0001 \leq 0.05$, meaning that there is an influence of audiobook media on adolescent knowledge about gastritis. Schools are expected to consider the use of innovative learning media such as audiobooks in learning, especially related to diseases commonly experienced by adolescents such as gastritis. There was a significant increase in adolescents' knowledge about gastritis after being given an audiobook intervention. Therefore, the audiobook media has an effect on adolescents' knowledge about gastritis at SMAN 4, Bengkulu City.

Keywords: Teen Knowledge, Qr-Code, Audiobook, Gastritis

INTRODUCTION

Gastritis is a health problem commonly encountered among adolescents and ranks high on the list of most frequent diseases in Bengkulu City, with more than 45,000 cases and around 600 cases occurring in the 15–19 age group. Low knowledge, irregular eating patterns, and the tendency to ignore early symptoms make adolescents vulnerable to this disease.

One effective preventive measure is through educational media, such as audiobooks, which use voice as a means of delivering information, making it easily accessible and appealing to adolescents who have an audio learning style. Several studies, such as those by Destiyanih et al. (2022), Minarti

(2022), and Sugiharto & Susanto (2024), indicate that audio media can enhance knowledge and learning interest.

However, research on the effect of audiobooks on knowledge of gastritis among adolescents in Bengkulu City is still limited, so this study aims to examine the influence of audiobook media on adolescents' knowledge of gastritis at SMAN 4 Bengkulu City and to provide an effective educational media alternative for health promotion in schools.

MATERIALS AND METHODS

This study is a quantitative study with a pre-experimental approach using a one-group pre-test and post-test design aimed at determining the effect of audiobook media on increasing adolescents' knowledge about gastritis. The study was conducted from May 27 to June 4, 2025, at SMAN 4 Kota Bengkulu with a population of all 11th-grade students totaling 444 individuals, and a sample of 44 respondents selected using simple random sampling through the Spin Wheel application. Inclusion criteria included students willing to be respondents, active in learning, and without hearing impairments, whereas exclusion criteria were students who were sick or absent during the intervention. The independent variable of this study was audiobook media, while the dependent variable was knowledge about gastritis, measured using a multiple-choice questionnaire of 15 questions that was valid (r -table 0.423) and reliable (Cronbach's α 0.877).

The audiobook media contains material about the definition, causes, symptoms, prevention, and treatment of gastritis. The intervention was carried out over one week, with a pre-test on the first day, audiobook playback twice a day from the second to the fourth day, a one-day break without intervention, and a post-test on the sixth day. Primary data were collected through questionnaires before and after the intervention, while secondary data were obtained from gastritis case reports from the Bengkulu Provincial Health Office.

RESULTS AND DISCUSSION

Table 1 shows the characteristics of 11th-grade students at SMAN 4 Kota Bengkulu based on gender, age, and parents' occupations. In terms of gender, the sample of 11th-grade students at SMAN 4 Kota Bengkulu is dominated by female students, totaling 23. In terms of age, the majority are 17 years old, amounting to 38 students. Based on parents' occupations, most work in the private sector, such as traders, farmers, and screen-printing workers, with a total of 24 students.

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency	Presentase
Gender		
Male	21	47,7
Female	23	52,3
Age		
16	5	11,4
17	38	81,3
18	1	2,3
parents' occupation		
entrepreneur	24	54,6
merchant	8	18,2
farmer	1	2,3
civil servant	9	20,4
Indonesian National Armed Forces / Indonesian National Police	2	6,8
Total	44	100

Table 2. Mean Knowledge about Gastritis

Knowledge	N	Mean	Min-Max
Before	44	53,02	27-67
After	44	81,25	47-100

Table 2 shows that the average knowledge of teenagers about gastritis before the intervention was 53.02, whereas after the intervention it increased to 81.25 and falls into the good category. These results indicate that interventions delivered through audiobooks play a role in improving adolescents' understanding of gastritis.

Table 3. The Effect of Audiobook Media

Knowledge	N	Mean	▲ Mean	p-value
Before	44	53,02	28,23	0,0001
After	44	81,25	28,23	0,0001

Table 3 shows the effect of audiobook media on respondents' knowledge about gastritis. The average knowledge score of respondents before the intervention was 53.02 and increased to 81.25 after the intervention, with a standard deviation of 28.23. Statistical test results showed a p-value of 0.0001, which means there is a significant effect of using audiobook media on increasing adolescents' knowledge about gastritis. These findings reinforce that audio media has great potential in supporting the learning process and promoting health behavior changes among adolescents.

DISCUSSION

Characteristics of 11th Grade Students at SMAN 4 Kota Bengkulu

Adolescents in the high school age range, specifically between 14 and 19 years old, are a productive age group but are also highly susceptible to gastrointestinal disorders such as gastritis. Gender factors also influence vulnerability to this disease, with female adolescents having a higher risk compared to males. Arikah's (2015) study shows that females have up to 6.667 times greater likelihood of experiencing gastritis, and the findings of Apriyani et al. (2021) also state that females have three times higher risk of experiencing stomach disorders than males, due to being more emotionally sensitive and having lower pain tolerance. Parental work also becomes a factor contributing to the lifestyle of children at home. Rapid economic growth has caused many parents to work long hours or be in stressful conditions due to job pressures. This situation impacts the attention given to fulfilling children's nutritional needs, family eating patterns, as well as the lack of parental involvement in physical activities or healthy communication with children.

Description of the Level of Knowledge about Gastritis Using Audiobook Media in Adolescents

With the advancement of times, education has entered the digital era, allowing the use of various technology-based media to support the learning process. Sejati (2021) states that learning media such as audiobooks equipped with QR-Codes are a form of innovation in the field of education that is highly efficient. QR-Codes enable students to quickly access materials just by scanning with devices such as smartphones without the need to type in addresses manually. This innovation accelerates the process of accessing information and is highly relevant for implementation in digital learning. This technology provides ease of access, flexibility in learning time and place, and can create a more engaging and interactive learning atmosphere. In the context of health education, the use of QR Codes in audiobook media not only improves the efficiency of information access but also has the potential to significantly enhance students' knowledge and learning outcomes.

The Effect of Audiobook Media on Teenagers' Knowledge About Gastritis

Audio media is one type of learning media that uses sound as the main tool in conveying information. This media can help students in honing their listening skills and improving their language abilities. Its flexible use allows students to learn anytime and anywhere. The learning continued. Besides audio media, the use of QR Code technology also enhances the effectiveness of digital learning. Mahardika (2023) shows that integrating QR Codes into learning media makes it easier for students to access audio or video materials simply by scanning the code using digital devices. The utilization of this technology strongly supports independent learning, allowing students to review the material according to their needs and study without time or location constraints.

CONCLUSION

This study concludes that QR Code-based audiobook media has a significant impact on increasing adolescents' knowledge about gastritis. Before the intervention, students' knowledge levels were low, but they increased significantly after using the audiobook. This media is effective as a health education tool because it is easily accessible, engaging, and aligns with the characteristics of adolescents who are familiar with digital technology. The QR Code innovation facilitates quick and flexible access to information. Theoretically, this study strengthens the literature on health promotion and digital education by emphasizing that the combination of audio media and information technology can enhance learning effectiveness and create an interactive and enjoyable learning experience for adolescents.

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