

## DIFFERENCES IN KNOWLEDGE OF DENTAL AND ORAL HYGIENE THROUGH COUNSELING USING LEAFLET AND POSTER MEDIA FOR CHILDREN OF CLASS VII MTSN 8 AGAM AMPEK ANGKEK DISTRICT AGAM REGENCY

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### Abstract

The tendency to neglect oral health is usually based on a lack of knowledge. To increase knowledge, a health promotion process supported by a media is needed. Leaflets have the advantage of being able to make it easier for users to remember things that have been taught or communicated, can adjust and learn independently and practically because it reduces the need for note-taking while posters facilitate understanding, and increase enthusiasm for learning. The purpose of this study was to determine the difference in dental and oral hygiene knowledge between counseling and leaflet and poster media in grade VII MTSN 8 Agam students, Ampek Angkek District, Agam Regency. The type of research used is quasi-experimental with pretest and posttest designs. The population of this study was all grade VII students of MTSN 8 Agam, Ampek Angkek District, Agam Regency, totaling 115 students. The sample in this study was 90 people, the sampling technique used was simple random sampling. How to collect data by filling out pretest-posttest questionnaires on dental and oral hygiene, counseling media leaflets and posters. Data analysis was used, namely univariate and bivariate analysis. The results showed that students' knowledge before being given counseling on dental and oral hygiene obtained 26.7% results with good criteria and after being given counseling with leaflet media increased to 93.3%. The knowledge of students before being given dental and oral hygiene counseling obtained results of 28.9 with good criteria and after being given counseling with poster media increased to 95.6%. The conclusion in this study is that leaflet media and poster media can both increase knowledge about dental and oral hygiene. It is recommended to respondents to increase their knowledge about dental and oral hygiene by reading through the mass media that exists today and applying it in their daily lives.

Keywords: Leaflet, Pengetahuan, Poster,

### 1. INTRODUCTION

Oral health is very important and the most appropriate way to prevent dental and oral problems (10). The prevalence of dental and oral problems in Indonesia is still very large. Based on the Basic Health Research (13) West Sumatra Province which experienced dental and oral problems was 58.5%, while the percentage of Agam Regency residents who experienced dental and oral problems was 44.11%.

Health education is based on the principle of learning, providing information or advice aimed at individuals, groups, or communities on how to live healthily. The purpose of health education is to achieve changes in the behavior of individuals, families, and communities in fostering, maintaining, healthy behavior and environment and, playing an active role in efforts to realize optimal health levels (14).

Media or teaching aids for dental health education can be considered as aids to facilitate the target's understanding of the material to be delivered by the counselor. Leaflets are a form of delivering information or health messages through folded sheets. The content of the information can be in the form of sentences or images or a combination (1) while posters are a combination of lines, images,

colors and writing that aim to attract people's attention and also communicate a message briefly. The message conveyed can be an appeal, warning, invitation or call to the target. Posters should be able to display images and words that can touch the target's heart with the message conveyed (8). Children aged 12-15 years are an age group that has experienced many changes related to abstract thinking, mastering reasoning, and being able to draw conclusions from available information (12). Leaflets and posters are quite appropriate media to attract the attention of children at that age.

## 2. METHODOLOGY

This type of research uses quasi-experimental (quasi-experimental) with the design of this research using a pretest (before) and posttest (after) design which is carried out with an observation and treatment pattern (15). This research was conducted at MTSN 8 Agam, Ampek Angkek District, Agam Regency. The population of the study was all students of class VII MTSN 8 Agam, Ampek Angkek District, Agam Regency, totaling 115 people with a sample of 90 people. The results of the statistical analysis of the Independent sample T-test

## 3. RESULTS AND DISCUSSION

Research on differences in knowledge of dental and oral hygiene through counseling with leaflet and poster media in class VII students of MTSN 8 Agam, Ampek Angkek District, Agam Regency, as many as 90 respondents were divided into 2 groups, namely 45 respondents received counseling with leaflet media and 45 respondents received counseling with poster media. The following research results were obtained

**Table 1:** Frequency Distribution of Knowledge About Dental and Oral Hygiene Before and After Counseling with Leaflet Media

Knowledge Criteria	Before Counseling		After Counseling	
	f	%	f	%
Good	12	26,7	42	93,3
Average	31	68,9	3	6,7
Poor	2	4,4	0	0
<b>Total</b>	45	100.0	45	100.0

Table 1 shows the frequency distribution before being given counseling using leaflet media, with the most knowledge criteria being the sufficient criteria, namely 68.9%, while after being given counseling using leaflet media, the most knowledge criteria were the good criteria, namely 93.3%.

**Table 2:** Frequency Distribution of Knowledge About Dental and Oral Hygiene Before and After Counseling with Poster Media

Knowledge Criteria	Before Counseling	After Counseling
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	f	%	f	%
<b>Good</b>	13	28,9	43	95,6
<b>Average</b>	31	68,9	2	4,4
<b>Poor</b>	1	2,2	0	0
<b>Total</b>	45	100.0	45	100.0

Table 2. Shows the frequency distribution before being given counseling using poster media, with the most knowledge criteria being the sufficient criteria, which was 68.9%, while after being given counseling using poster media, the most knowledge criteria were the good criteria, which was 95.6%.

**Table 3:** Differences in Knowledge of Dental and Oral Hygiene Who Received Counseling Using Leaflet Media and Poster Media

Category	Difference	Gap	P Value
			<b>0,674</b>
	<b>Before</b>	<b>After</b>	
<b>Media Leaflet</b>	72,22	87,78	16,33
<b>Media Poster</b>	73,11	89,56	17,11

Table 3. shows that there is a difference in the number of knowledge about dental and oral hygiene p before and after being given counseling with leaflet media which increased from 72.22 to 87.78 with a difference of 16.33, while before and after being given counseling with poster media increased from 73.the percentage

The results of the Independent T-Test statistical test prove that there is no significant difference between counseling with leaflet media and poster media as evidenced by the p value of 0.674. Knowledge is the result of knowing, and occurs after people sense a particular object. Sensing occurs through the five human senses such as sight, hearing, smell, taste and touch. Human knowledge is mostly based on the eyes and ears (17). Factors that influence a person's knowledge are internal and external factors. Internal factors include physical, including the health of a person's senses, spiritual, including psychological, intellectual, psychomotor health, and the individual's affective and cognitive conditions. External factors include education, a person's level of education will influence their response to something that comes from outside. People who are highly educated will provide a healthier response to incoming information, and will think about how much benefit they might get from the idea, exposure to mass media, through various media, both print and electronic. Various information can be received by the public so that someone who is more often exposed to mass media (television, radio, magazines, pamphlets and others) will get more information when compared to people who have never been exposed to media information. This means that exposure to mass media influences the level of knowledge a person has (12).

Oral hygiene is a condition or state where the teeth are free from dirt such as plaque, debris, and calculus. Oral hygiene is one of the efforts needed to protect the mouth from infection, clean and freshen

the mouth. Oral hygiene in dental and oral health is very important because a number of oral and dental problems can arise due to lack of maintaining good dental and oral hygiene (20).

The behavioral changes that are given occur because with the stimulus given to something, it will react so that behavioral changes occur. This behavioral change occurs because of encouragement or in the form of counseling or information. In this study, the stimulus given was in the form of counseling on dental and oral hygiene and was supported by the existence of a media to increase children's knowledge. A good stimulus is one that can involve many senses that are used to receive and manage so that the possibility of the information being understood and retained in memory (13).

Media is a physical tool that can present messages and encourage students to learn. In the context of communication, media is one component of a learning strategy which is a message container or distributor that is forwarded to the target or recipient of the message (11). Extension media are all means or efforts in conveying or displaying messages or information conveyed by the communicator through various media or teaching aids with the aim of increasing the knowledge of the extension target and then changing behavior in accordance with the objectives of the extension (2). Health education media are means or efforts to display messages or information that the communicator wants to convey, either through print, electronic media (in the form of radio, television, computers and so on) and outdoor media, so that the target can increase their knowledge which is then expected to become a change in behavior towards positive in the health sector (2).

Counseling using leaflet media, respondents' knowledge did not fully understand about dental and oral hygiene because respondents had not received information either at school or from the mass media. After being given dental and oral hygiene counseling using leaflet media, there was a change in knowledge because leaflet media was easy to understand and could also strengthen counseling so that counselors could present health information well and were also supported by leaflet media that were distributed directly to the target.

Leaflets are a form of delivering information or health messages through folded sheets. The content of the information can be in the form of sentences or pictures or a combination. In general, the delivery of health education using the lecture method will be accompanied by the provision of leaflets, where the leaflets contain messages given during health education using the lecture method (10). Leaflets have advantages and disadvantages. The advantages of leaflets are that they are simple and very cheap, can make it easier for users to remember things that have been taught or communicated, various information can be given or read by the target group so that it can be discussed, targets can adjust and learn independently. The disadvantage of leaflets is that people are reluctant to read them, especially if the letters are too small and the arrangement is not attractive. Leaflets are also not durable and easily lost, can be wasted paper unless the teacher actively involves the client in reading and using the material (1).

Before being given counseling using poster media, some respondents already knew about dental and oral hygiene. Respondents had received information about dental and oral hygiene from the mass media. Respondents after being given counseling about dental and oral hygiene using poster media experienced a change in knowledge because poster media is easy to understand in a short time, can also attract the attention of respondents and posters have a stronger impression because posters are displayed in front of counselors so that respondents see or are stimulated to read them more often. Posters are a form of media that contains health information with a clear visual combination presentation and aims to influence a person or group to be interested in the material object being informed. Posters as a health education medium have advantages and disadvantages (7). The advantages of posters are increasing awareness, trust, and attitudes towards health. The disadvantages of posters are that posters can only be given to a limited audience, poster media is only read or viewed briefly so that the message conveyed is not fully conveyed, poster media is more easily damaged (22).

Based on the results of the statistical analysis of the Independent sample T-test, the Sig (2-tailed) value was obtained as  $0.674 > 0.05$ , so as the basis for decision making in the Independent sample T-test, it can be concluded that  $H_a$  is rejected and  $H_o$  is accepted, which means that there is no significant

difference between the knowledge of dental and oral hygiene in students who receive counseling using leaflets and posters.

Increasing knowledge can be done through health promotion, one of which is through counseling (14). Health counseling using media is very helpful in conveying messages and information to respondents. One of the media used in health counseling is print media, namely posters and leaflets. Posters and leaflets can be made according to the needs of the learning process and can increase children's desire to learn, so that leaflets and posters have an effect on the knowledge of dental and oral health of school-age children. Media is a physical tool that can present messages and encourage students to learn.

In the context of communication, media is one component of a learning strategy which is a message container or distributor that is forwarded to the target or recipient of the message (11). Media is also a device that can be manipulated, heard, seen, read well in teaching and learning activities (12). Leaflets are printed leaflets that are then folded into two or three parts. This media contains concise and easy-to-understand messages or information, where the language used in the leaflet is very simple and focuses on interesting and easy-to-understand images or illustrations (5). Posters have the advantage of being able to raise a sense of beauty, facilitate understanding, and increase students' enthusiasm for learning, while the disadvantages of posters are that they are used for a limited audience (except for large commercial posters), are easily damaged, and are ignored (1).

The results of this study are in line with the 2020 study on the differences between leaflets and posters as dental health promotion media on knowledge about dental and oral hygiene maintenance and status in grade VII students of Mulia Pratama Private Middle School, Medan Tuntungan District. The results of the paired t-test analysis showed a significant difference between the average knowledge in the leaflet group was 10.20 while the average knowledge in the poster group was 11.83 with a p value <0.05, namely p 0.000.

This is also reinforced by previous researchers (Jumilah, 2014) showing that there are differences in counseling through poster media. on increasing student knowledge showed a score before knowledge using poster media of 8.22% and after being given counseling using poster media of 14.07%. This result is supported by previous research that counseling with poster media can increase knowledge of dental and oral health.

#### 4. CONCLUSIONS

Based on the results of the study conducted on students of class VII MTSN 8 Agam, Ampek Angkek District, Agam Regency regarding the differences in knowledge of dental and oral hygiene through counseling with leaflet and poster media to 90 respondents who were divided into 2 groups, namely 45 using leaflet media and 45 using poster media, it can be concluded. Knowledge of dental and oral hygiene before being given counseling using leaflet media obtained the most results, namely in the sufficient criteria, after being given counseling using leaflet media, there was an increase in knowledge to good criteria. Knowledge of dental and oral hygiene before being given counseling using poster media obtained the most results, namely in the sufficient criteria, after being given counseling using poster media, there was an increase in knowledge to good criteria. There was no difference in knowledge of dental and oral hygiene between counseling using leaflet and poster media in class VII MTSN 8 Agam, Ampek Angkek District, Agam Regency.

#### REFERENCES

- [1] Adventus *et al.* (2019) 'Buku Ajar Promosi Kesehatan' Program Studi Diploma Tiga Keperawatan. Jakarta: p. 107.
- [2] Alifah, F *et al.*, (2023) Pendidikan kesehatan bagi remaja. Edited by L. Fajria. Jawa Barat: Cv. Adanu Abimata.

- [3] Balitbangkes (2013) 'Laporan Riskesdas 2013 Nasional'. Jakarta: Badan Penelitian dan Pengembangan Kesehatan.
- [4] Balitbangkes (2013) 'Laporan Riskesdas 2013 Sumatera Barat'. Jakarta: Badan Penelitian dan Pengembangan Kesehatan.
- [5] Casman *et al.*, (2023) Pendidikan Kesehatan pada Kasus Pneumonia anak berbasis riset. Malang: NEM.
- [6] Dirman *et al.* (2022) Model Edukasi Pemanfaatan Tanaman Obat Keluarga Melalui Video Sebagai Upaya Peningkatan Perilaku Tentang Pentingnya Menjaga Kesehatan Gigi dan Mulut Pada Kader. Jawa Tengah: Pustaka Rumah Cinta
- [7] Enggar *et al.*, (2024) Bunga nutrisi dan masalahnya. Jawa Tengah: PT Media Pustaka Indo.
- [8] Gejir, I. *et al.* (2017) *Media Komunikasi Dalam Penyuluhan Kesehatan*. Yogyakarta: Andi (Anggota IKAPI).
- [9] Harahap *et al.* (2021) Buku ajar dasar promosi kesehatan. 1st edn. Medan: CV. Merdeka Kreasi Group.
- [10] Hidayat, R. and Tandiar, A. (2016) Kesehatan Gigi dan Mulut-Apa Yang sebaiknya Anda Tahu? 1st edn. Edited by P. Christian. Yogyakarta: CV Andi Offset.
- [11] Hasan, *et al.* (2021) *Media Pembelajaran*. Tahta Media Group.
- [12] Magdalena, *et al.* (2021) Perkembangan peserta didik sekolah dasar. Jawa Barat: CV Jejak, Anggota IKAPI.
- [13] Maisarah, *et al.* (2023) *Media pembelajaran*. Edited by A. Purnomi. Banten: PT Sada Kurnia Pustaka.
- [14] Maita, L. and Pitriani, R. (2019) Asuhan kebidanan bagi para bidan dikomunitas. Yogyakarta: Grup penerbit CV Budi utama.
- [15] Masturoh, I. and Anggita, N. (2018) *Metodologi Penelitian Kesehatan*, Jakarta: Kementrian Kesehatan RI. Lambung Mangkurat University Press.
- [16] Meningkatkan Produksi ASI Eksklusif. 1st edn. Edited by M. Nasrudin. Jawa Tengah: PT.Nasya Expanding Management.
- [17] N, M. and Tumurung (2018) *Promosi Kesehatan*. 1st edn. Sidoarjo: Anggota IKAPI.
- [18] Permenkes RI. (2016). 'Peraturan Menteri Kesehatan Republik Indonesia Nomor 89 Tahun 2015 Tentang Upaya Kesehatan Gigi dan Mulut,(151).
- [19] Presiden Republik Indonesia (2023) 'UU Nomor 17 Tahun 2023', pp. 1–300.
- [20] Restuning, S. (2022) Asuhan Kesehatan Gigi dan mulut Pasien Rawat Inap. 1st edn. Edited by M. Nasrudin. Jawa Tengah: PT.Nasya Expanding Management.
- [21] Sianipar, S. (2020) 'Perbedaan leaflet dengan poster sebagai media promosi pemeliharaan kesehatan gigi dan mulut dan status kebersihan gigi pada siswa/ I kelas VII S M P Swasta Mulia Pratama Kecamatan Medan Tuntungan Sulastri Sianipar'.
- [22] Siregar et al., (2020) Promosi kesehatan lanjutan dalam teori dan aplikasi. 1st edn. Jakarta: Kencana.