



Dental Busy Book Media on Improving Tooth Brushing Skills

Aldila

Student, Department of Dental Health, Polytechnic Health of Jakarta I, Indonesia

ARTICLE INFO

Article history:

Received: March 20, 2025

Revised: March 27, 2025

Accepted: March 29, 2025

Available online: March 30, 2025

Keywords:

Skills, tooth brushing, counselling, dental busy book



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright © 2025 by Author. Published by Center of Excellent (PUI) Poltekkes Kemenkes Jakarta I, Indonesia

ABSTRACT

Background: Learning while playing is favored by elementary school students to improve student skills, one of which is the dental busy book game. The material in this game is formed in a book presented in the form of pictures and is equipped with a description of the picture. **Objective:** The purpose of this study was to determine the description of the skills of how to brush teeth before and after counseling with dental busy book media in grade I SDIT Tirta Buaran Serua Ciputat South Tangerang. **Methods:** This research method is quasi experimental research with a purposive sampling technique of 34 first grade children. Data collection instruments used were pre and post test observation sheets totaling 10 activities and dental busy book counseling media. **Results:** The results of this study obtained skills before counseling which included the highest category with unskilled criteria as many as 20 people (58.8%) and the lowest category with skilled criteria as many as 14 people (41.2%). While after counseling the results obtained with the highest category with skilled criteria as many as 34 people (100%), and the lowest category did not exist. The average tooth brushing skills of first grade children of SDIT Tirta Buaran Serua Ciputat South Tangerang increased from 7.26 to 9.71 with skilled criteria. **Conclusion:** It can be concluded that there is an increase in tooth brushing skills with counseling using dental busy book media.

INTRODUCTION

Oral health is very important for everyone, including children. If teeth and gums are not well maintained, it can cause pain, difficulty eating, and other health problems (Purnama et al., 2019). Dental and oral health problems in children can affect the growth and development of children (Ngatemi, 2020). The health condition of primary teeth will affect the eruption of permanent teeth in children. In addition, children are a group of people who are susceptible to disease. A child's quality of life can be disrupted if he or she experiences health problems with his or her teeth (Kantohe et al., 2016).

Elementary school children aged 6-11 years are in the middle childhood stage. In the middle childhood stage, children have basic skills in counting, writing, and reading. At the stage of elementary school child development, there are several main aspects of the child's individual personality, such as physical-motor, cognitive, social-emotional, language, and moral understanding related to religion (Khaulani et al., 2020).

Elementary school children often have problems with maintaining their dental and oral hygiene (Erdiyani et al., 2023). Some factors that cause dental problems are lack of dental and oral hygiene, incorrect brushing methods, infrequent brushing, consumption of soft, sweet, and sticky foods by children so that food is often left in the mouth (Jumriani, 2018).

Based on basic health research in 2018, it was found that 94.7% of Indonesians brush their teeth every day, but only 2.8% of them do it the right way, namely after breakfast and before going to bed. Meanwhile, the prevalence of daily brushing in the 5-9 year age group reached 93.2%, but only 1.4% did it the right way. In 2018, the percentage of people who brushed their teeth every day in Banten province reached 95.3%, but only 2.3% did it the right way (Riskesdas, 2018).

The development of communication media also has an impact on learning in health development efforts, especially in the field of health promotion (Octavianita et al., 2024). Health promotion is a form of learning that aims to encourage the community to have good health behavior (Notoatmodjo, 2014). Health promotion efforts are one form of learning. Given this, it is important for health workers to consider communication media as a much-needed tool in the learning process (Ramdani et al., 2022).

*Corresponding author

E-mail addresses: aldilaguswita@gmail.com

Busy Book is a simulation technique that uses printed media, has physical objects that are suitable for children because they can be designed in an interesting and interactive way (Utami et al., 2023). The busy book design itself provides a colorful nuance so that it arouses children's interest and pleasure in participating in learning (Fitriyah, 2022). The use of busy books in learning has several advantages, such as ease in determining the material taught and ease in evaluating students because the activities in the book can show the unique abilities of each student. In addition, students will also feel curious and tend to do activities themselves without help from teachers (Mufliharsi, 2017).

The results of (Aura & Isnanto, 2023) study on how to brush teeth showed that the average knowledge of 1st grade elementary school students increased after being given counseling using busy book media, namely with the criteria of less (38%) in the pre-test and with the criteria of sufficient (73.78%) in the post-test. The results of (Ramdani et al., 2022) study showed that the knowledge of 2nd grade elementary school students before being given counseling using busy books, namely the criteria of good none (0%) became 8 children (38.1%), the criteria of sufficient 6 children (28.6%) became 13 children (61.9%) and the criteria of less 15 children (71.4%) became none (0%).

METHOD

This research design is a quasi-experimental research with a pre- and post-test with one group design. Research that aims to find the effect of certain treatments on others in controlled conditions. The design of this study began with observations through a pre-test first, then an intervention was given, then a post-test was given so that changes could be found before and after the intervention was given (Notoatmodjo, 2018). This study aims to determine the description of tooth brushing skills before and after counseling with dental busy book media in grade I children at SDIT Tirta Buaran Serua Ciputat Tangerang Selatan in 2024.

The sampling technique used purposive sampling, with a total of 34 respondents. The study was conducted on May 20-28, 2024. The instrument used in collecting data is an observation sheet for tooth brushing skills which contains 10 activities and Dental Busy Book media. Analysis of this research data with descriptive analysis, used to assess data before and after the research findings are given in tabular form to provide a summary of the variables studied.

RESULT

The data collection process began at the first meeting by explaining the intent and purpose of the researcher to the homeroom teacher and target, implementing the pretest and providing an informed consent sheet. Then at the second meeting the researcher explained the procedure for using the dental busy book after which the target was invited to play using the dental busy book for 15 minutes after which an explanation was given regarding the contents of the material in the dental busy book. After being given counseling through the dental busy book, the target was invited to re-implement the correct way to brush their teeth according to what had been taught and the researcher monitored the target's way of brushing their teeth for 5 days to find out if there was any improvement after being given counseling using the dental busy book media. Then at the fifth meeting the researcher conducted a post-test and evaluation of the activities for the 5 days.

Table 1. Frequency distribution skill of brushing teeth before an after counseling with dental busy book media

Skill of brushing	Before		After	
	F	%	F	%
Skilled	14	41.2	34	100
Unskilled	20	58.8	0	0
Total	34	100	34	100

Table 1 shows that before the counseling with dental busy book media, the majority of 14 students (41.2%) had the skill of brushing their teeth with the criteria of skilled, 20 students (58.8%) brushed their teeth unskilled. While after the counseling with dental busy book media, all students (100%) had the skill of brushing their teeth.

Table 2. Distribution of Tooth Brushing Skill Values Before and After Counseling with Dental Busy Book Media

Tooth Brushing Skill	Day-1	Day-2	Day-3	Day-4	Day-5	Difference
Mean	7.26	8.53	9.23	9.26	9.71	2.45

Table 2 shows that before the counseling with dental busy book media was conducted on first grade children, the average respondent's skills were 7.26 with the criteria of unskilled, while after the counseling with dental busy book, the average respondent's skills from the second to the fifth day increased, namely 9.71 with the criteria of skilled or an increase of 2.45 which was obtained from the difference between the first day and the fifth day.

DISCUSSION

The study conducted on grade I students of SDIT Tirta Buaran Serua Ciputat South Tangerang in May 2024 was intended to see a picture of tooth brushing skills before and after counseling using the dental busy book media in 2024. The respondent skill criteria will be divided into 2, namely skilled if >7 activities are carried out and unskilled criteria if ≤ 7 activities are carried out according to the determination of the cutoff point value (mean).

Research result shows that before the counseling with dental busy book media, the majority of 14 students (41.2%) had the skill of brushing their teeth with the criteria of skilled, 20 students (58.8%) brushed their teeth unskilled. While after the counseling with dental busy book media, all students (100%) had the skill of brushing their teeth. The average value before the counseling with dental busy book media was conducted on first grade children, the average respondent's skills were 7.26 with the criteria of unskilled, while after the counseling with dental busy book, the average respondent's skills from the second to the fifth day increased, namely 9.71 with the criteria of skilled or an increase of 2.45 which was obtained from the difference between the first day and the fifth day.

The success of this study was because when the study was conducted, most students were very interested in using the dental busy book as a learning medium, as evidenced by the 34 students all being enthusiastic about playing the dental busy book. This is in line with research (Aura & Isnanto, 2023) showing that students' knowledge outcomes increased after being given counseling. This may be due to the fact that students feel happy and active when learning with busy books where they have never received counseling with the media, besides this busy book media itself is a play tool but also as a learning tool so that children do not feel bored in the learning process.

Other studies (Ningsih et al., 2023) found an increase in language skills, especially listening. It can be concluded that busy books are suitable for use in helping to deliver school lessons because they have been proven to improve learning. Research (Jenab & Inten, 2021) also found an increase in children's tooth brushing skills after being given intervention using busy books. This shows that busy books can be used to train life skills in children.

The results of the study at SDIT Tirta Buaran Serua Ciputat, South Tangerang, are known to be in line with previous studies using busy book media, namely a greater increase in skills than before. This indicates that busy book media can develop students' interest and motivation to learn. In accordance with the principle of child development, namely continuous learning, which starts from providing knowledge about something, exploring the environment, and creating perceptions. At the age of six, children are in a transition phase from preschool to elementary school, this phase is called the mature age for children to learn. This is because at this age the development of children's intelligence has been shown by their ability to perform series, group objects, be interested in numbers and writing, increase vocabulary, like to talk, understand cause and effect and develop an understanding of space and time (Sabani, 2019).

CONCLUSION

Based on the results of the research that has been done, it can be concluded that there is an increase in tooth brushing skills with counseling using dental busy book media.

ACKNOWLEDGE

Thank you to SDIT Tirta Buaran Serua Ciputat, South Tangerang for permission to conduct research.

REFERENCES

- Aura, F. V., & Isnanto, R. L. (2023). The Effect Of Busy Book Media On First Grade Students ' Knowledge Of How To Brush Their Teeth (Study Maryam Islamic Elementary School Surabaya). *Proceeding International Conference on Health Polytechnic Ministry of Health Surabaya*, 2(2).
- Erdiyani, T., Purnama, T., Emini, E., & Nurilawaty, V. (2023). Videoscribe as an innovative media for dental health education. *Journal Center of Excellent: Health Assistive Technology*, 1(1), 12–16. <https://doi.org/10.36082/jchat.v1i1.1016>
- Fitriyah, Q. F. (2022). Pengembangan Media Busy Book dalam Pembelajaran Motorik Halus Anak Usia 4-5 Tahun. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(2), 719–727. <https://doi.org/10.31004/obsesi.v6i2.789>
- Jenab, S., & Inten, D. N. (2021). Efektivitas Penggunaan Media Busy Book dalam Meningkatkan Life Skill pada Anak Usia 3-4 Tahun di Playgroup X. *Jurnal Riset Pendidikan Guru Paud*, 38–44. <https://doi.org/10.29313/jrpgp.v1i1.155>
- Jumriani, J. (2018). Hubungan Frekuensi Menyikat Gigi dengan Tingkat Kebersihan Gigi dan Mulut pada Siswa SD Inpres Btn IKIP I Kota Makassar. *Media Kesehatan Gigi: Politeknik Kesehatan Makassar*, 17(2).
- Kantohe, Z. R., Wowor, V. N. S., & Gunawan, P. N. (2016). Perbandingan efektivitas pendidikan kesehatan gigi menggunakan media video dan flip chart terhadap peningkatan pengetahuan kesehatan gigi dan mulut anak. *E-GIGI*, 4(2), 7–12. <https://doi.org/10.35790/eg.4.2.2016.13490>
- Khaulani, F., Neviyarni, S., & Irdamurni, I. (2020). Fase dan tugas perkembangan anak Sekolah Dasar. *Jurnal Ilmiah Pendidikan Dasar*, 7(1), 51–59. <https://doi.org/10.30659/pendas.7.1.51-59>
- Mufliharsi, R. (2017). Pemanfaatan busy book pada kosakata anak usia dini di PAUD Swadaya PKK. *Jurnal Metamorfosa*, 5(2), 146–155.
- Ngatemi, T. P. (2020). Dental Health Handbook as Parents Monitoring in the Formation of Independence for Brushing Teeth in Early Childhood. *Indian Journal of Public Health Research & Development*, 11(1), 766–771.
- Ningsih, S. D., Khotimah, N., Hasibuan, R., & Komalasari, D. (2023). Pengembangan Media Busy Book dalam Meningkatkan Kemampuan Bahasa pada Anak Usia 5-6 Tahun. *Jurnal Pendidikan Sejarah Dan Riset Sosial Humaniora*, 3(3), 331–341.
- Notoatmodjo, S. (2014). *Ilmu Perilaku Kesehatan*. Jakarta : Rineka cipta.
- Notoatmodjo, S. (2018). *Metodologi Penelitian Kesehatan*. PT Rineka Cipta.
- Octavianita, D., Purnama, T., Emini, E., & Nurilawaty, V. (2024). Bingo Game in Improving Dental Health Knowledge in Elementary School. *Journal Center of Excellent: Health Assistive Technology*, 2(2), 75–80. <https://doi.org/10.36082/jchat.v2i2.1784>
- Purnama, T., Rasipin, R., & Santoso, B. (2019). Pengaruh Pelatihan Tedi's Behavior Change Model pada Guru dan Orang Tua terhadap Keterampilan Menggosok Gigi Anak Prasekolah. *Quality: Jurnal Kesehatan*, 13(2), 75–81.
- Ramdani, R., Kristiani, A., & Robbihi, H. I. (2022). Busy Book on Dental and Oral Health Maintenance Knowledge in Student Class 2. *The Incisor (Indonesian Journal of Care's in Oral Health)*, 6(2). <https://doi.org/10.37160/theincisor.v6i1.35>
- Riskesdas. (2018). *Laporan Nasional 2018, Badan Penelitian dan Pengembangan Kesehatan Departemen Kesehatan*.
- Sabani, F. (2019). Perkembangan anak-anak selama masa sekolah dasar (6–7 tahun). *Didaktika: Jurnal Kependidikan*, 8(2), 89–100.
- Utami, S. P., Darmawangsa, D., Mahata, I. B. E., & Ashari, C. (2023). The effect of busy book media on knowledge level dental and oral health in children. *Jurnal PADE: Pengabdian & Edukasi*, 5(1), 1–4. <https://doi.org/10.30867/pade.v5i1.1333>