

Research Report

Promoting Dental Check-up for Pregnant Women

Maulidina Nabilah Tasyakuranti, Pramesti Audigita Linati, Farah Azkiyah, Delavia Faniga Erzaligina, Fajarrudin, Daniyal Lazuardi, Hasnah Diah Pratiwi, Pradipta Pitaloka, Nilna Nur Putri, Natalia Tjahyono, Inggit Dwi Virgianti and R. Darmawan Setijanto

Departement Dental Public Health,
Faculty of Dental Medicine, Universitas Airlangga
Surabaya – Indonesia

ABSTRACT

Background: Dupak Public Health Center is one of the public health service facilities in Surabaya that provides integrated dental and oral health services. Dupak Public Health Center covers Dupak District area. Only 8.2% out of 366 pregnant women visited the dental poly from April 2017–April 2018. An epidemiological study reported that dental visitation in pregnant women in the Dupak Public Health Center was still very low. Lower knowledge levels of pregnant women about dental and oral health caused the low dental visitation in the dental poly. An intervention was needed to change the negative behavior related to dental and oral health, especially in pregnant women. **Purpose:** To increase the dental visitation of pregnant women in the dental poly of the Dupak Public Health Center. **Methods:** The program adopted the health education strategy with a group approach. The group means cadres of pregnant women. Pregnant women learned about dental and oral health during pregnancy. **Results:** Eight pregnant women were attending the invitation. The pre-test result showed that 71.60% of pregnant women had answered questions correctly, and the post-test result showed that 88.75% of pregnant women had answered the questions correctly. **Conclusion:** This program is effective to increase the knowledge of pregnancy woman that will lead to dental visitation.

Keywords: Dental visitation; pregnant women; module book.

Correspondence: R. Darmawan Setijanto, Department of Dental Public Health, Faculty of Dental Medicine, Universitas Airlangga, Jl. Prof. Dr. Moestopo 47 Surabaya 60132 - Indonesia E-mail: r-darmawan-s@fkg.unair.ac.id

INTRODUCTION

Dental health is inseparable from general health, and it affects the quality of life.¹ There will be changes in the oral cavity due to hormonal factors, changes in eating patterns, cravings, nausea, and vomiting during pregnancy. Pregnant women are susceptible to periodontal disease due to changes in dental and oral hygiene habit.² Changes during pregnancy affect the quality of life of pregnant women.³ Periodontal disease is the second most common disease in Indonesia (\pm 73.50%), and 4–5% of the population suffers from an advanced periodontal disease, which can cause loose teeth. Medical records of the last nine months at Dupak Public Health Center revealed that 31.7% of the patients have periodontal disease. From September to October 2017, the prevalence of the periodontal disease in pregnant women was 42.8%. PDGI reported that periodontitis is a common dental and oral health problem in pregnant women.⁴ Pregnant women should pay special attention to their dental and oral health, which will affect their babies.⁵ Pregnant women should be aware of the importance of

maintaining dental and oral health during their pregnancy. Therefore, maintaining dental health and health promotion can prevent dental health problems.⁶ Bamanikar and Kee in 2013 reported that knowledge correlated with dental health. Although most of them, 96.8%, agreed that pregnant women should have their teeth examined during pregnancy, only 55.9% did that Mwaiswelo and Masalu in 2007 highlighted that lower knowledge levels caused poor dental and oral hygiene in pregnant women.⁷ They also reported that only 16% of pregnant women receive dental and oral health education, and only 3.7% of pregnant women had dental check-up during pregnancy. Research conducted by Bianca on 405 pregnant women reported that half of the respondents had regular visits to the dentist before their pregnancy, and most of them visited the dentist only when they had dental problem.⁵ Therefore, we intended to increase the total dental visitation in the dental poly unit of the Dupak Public Health Center through an empowerment program involving pregnant women cadres.

Only 8.2% out of 366 pregnant women visited the dental poly from April 2017–April 2018. An epidemiological study

reported that dental visitation in pregnant women in the Dupak Public Health Center was still very low. The data suggested that those pregnant women were not aware of the importance of dental check-up during pregnancy. Lower knowledge levels of pregnant women about dental and oral health caused the low dental visitation in the dental poly. An intervention was needed to change negative behavior related to dental and oral health, especially in pregnant women.

The book was expected to serve as educational media, communication media, interaction media between pregnant women, midwives, and dentists. The book would encourage pregnant women to adopt healthier dental and oral health behavior, facilitate the communication between pregnant women and health officers, promote holistic health care for pregnant women. The books were distributed to pregnant women cadres on Wednesday, 13 May July 2018.

MATERIALS AND METHODS

The Module Book for Pregnant Women Cadres was the media of the empowerment program designed for midwives to promote that dental and oral health is part of general health. Each health service has an essential role in encouraging pregnant women to have a dental check-up, increasing knowledge levels of pregnant mothers, and tackling dental myths during pregnancy. For example, gum bleeding is not normal during pregnancy. Therefore, the program was expected to increase the total dental visitation in the dental poly of Dupak Public Health Center.

This Module Book for Pregnant Women Cadres aimed to increase the total visitation in the dental poly unit, improve the Ante Natal Care (ANC), promote dental and oral health care for midwives so that they can disseminate it to pregnant women.

The Module Book for Pregnant Women Cadres was intended to serve as a reference for pregnant women during ANC. The cadres could also learn about dental and oral health during pregnancy from the book.

The book consisted of information about types of dental treatment before and during pregnancy, the importance of pregnant women to have dental check-ups, myths, and facts of dental and oral health problems during pregnancy.

The tools and material of the program were Module Book for Pregnant Women Cadres, a laptop, paper, printer, and recorder. The target of the program was pregnant women cadres under the Dupak Public Health Center coverage

RESULTS

The program was evaluated using the outcome evaluation method. An evaluation was carried out to examine whether the participants have understood the material or not. The evaluation was based on the pre-test and post-test answers.

The post-test questions were distributed to the program participants to examine the knowledge levels of the cadres. The pre-test and post-test questions: First: Bleeding gums (gingivitis) can cause pre-eclampsia and LBW; Second: Pregnant women do not need to have a dental check-up if there is no dental problem; Third: Untreated dental and oral diseases can spread the infection to other organs of the body through blood circulation; Fourth: Tartar can be gone just by brushing your teeth; Fifth: The dental and oral health status of a pregnant woman can affect the baby; Sixth: Bleeding gums (gingivitis) is normal for pregnant women; Seventh: Dental treatments are safe during the first trimester and third trimester; Eighth: Swollen gums can cause babies to born prematurely; Ninth: Dietary consumption would only affect the baby's development in the womb, and it does not affect the baby's dental growth; Tenth: A medium toothbrush is a good toothbrush — not too hard and not too soft.

The participants had 5 minutes to answer the questions. The participants were instructed to answer by checking the appropriate box — true or false. The team then carried out the counseling session about dental and oral health using the book. The participants had another 5 minutes to answer

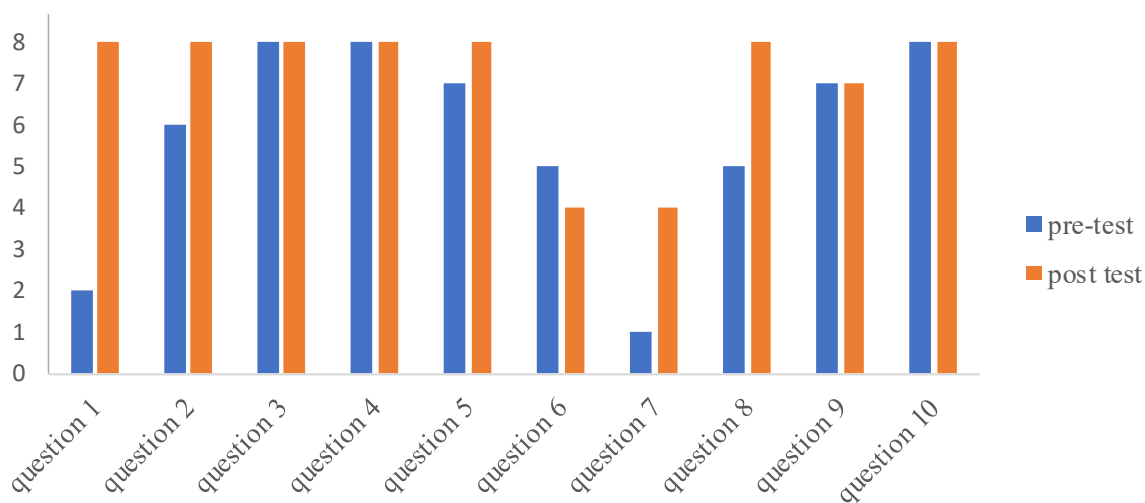


Figure 1. Pre test and post test evaluation.

the post-test questions. The total of pre-test scores was 57 (71.25%), and the total of post-test scores was 71 (88.75%), increasing by 17.5%.

DISCUSSION

Health promotion is an effort made to change people's behavior and habits regarding health, both in general and specifically.⁸ Health promotion also helps shape the environment that supports a healthy lifestyle. Not only consists of the health sector, but also a combination of social, economic, organizational, and support from various elements of society.⁹ One way to promote health is to form health cadres at the Public Health Center. The formation of cadres who come from the environment around the residence will increase engagement between cadres and the audience.¹⁰ In addition, with the presence of cadres, it is hoped that health promotion programs can continue for a long time.¹¹

To support the formation of cadres, a guidebook was designed to increase cadre knowledge about oral health. The SWOT analysis: (1) *Strength*: The book promotes that dental and oral health is part of general health. Each health service has an essential role in encouraging pregnant women to have a dental check-up, increasing knowledge levels of pregnant mothers, and tackling dental myths during pregnancy. For example, gum bleeding is normal during pregnancy. Therefore, the program was expected to increase the total dental visitation in the dental poly of Dupak Public Health Center. The book relates to the real situation, and the cover was well-designed. (2) *Weakness*: The book only consisted of several pages that the information about dental and oral health during pregnancy was not comprehensive enough. (3) *Opportunity*: the book was almost similar to the MCH book, which has been proven to increase total dental visitation in pregnant women. To date, no media that facilitate dental and oral health care for pregnant women between the MCH unit and dental poly unit, and this book offers to fill the gap. Dentists were very enthusiastic about this book because it helped them in educating pregnant women. (4) *Threat*: The book production cost IDR 17,000 per book. This was quite expensive that some cadres did not get the book. Not all cadres were able to understand and make use of this module book well. With these advantages,

this book of pregnant women cadres is considered effective enough to increase the knowledge of prospective cadres.

CONCLUSION

This book can serve as an educational tool for dental and oral health during pregnancy and as a communication tool between the dental poly unit and MCH unit to prevent pre-pregnancy and post-pregnancy health problems. Other public health centers can adopt the book, and this was to complement the information in the MCH book.

REFERENCES

1. Badan Penelitian dan Pengembangan Kesehatan Kementerian RI. RISKESDAS Tahun 2018. Jakarta: Kementerian Kesehatan Republik Indonesia; 2018.
2. Sajjan P, Pattanshetti JI, Padmini C, Nagathan VM, Sajjanar M, Siddiqui T. Oral Health Related Awareness and Practices among Pregnant Women in Bagalkot District, Karnataka, India. *J Int oral Heal JIOH*. 2015 Feb;7(2):1–5.
3. Lu HX, Xu W, Wong CM, Wei TY, Feng XP. Impact of periodontal conditions on the quality of life of pregnant women: A cross-sectional study. *Health Qual Life Outcomes*. 2015 May 28;13(1).
4. O S. Mekanisme Hubungan Periodontitis dan Bayi Prematur Berat Lahir Rendah. *J Kedokt Gigi Indones*. 2003;1(2):23–8.
5. 5Claas B. Self-reported oral health and access to dental care among pregnant women in Wellington. 2009;15–8.
6. Özen B, Özer L, Başak F, Altun C, Açikel C. Turkish women's self-reported knowledge and behavior towards oral health during pregnancy. *Med Princ Pract*. 2012 Jun;21(4):318–22.
7. Bamanikar S, Kok Kee L. Knowledge, attitude and practice of oral and dental healthcare in pregnant women. *Oman Med J*. 2013;28(4):288–91.
8. Nutbeam D, McGill B, Premkumar P. Improving health literacy in community populations: A review of progress. *Health Promot Int*. 2018;33(5):901–11.
9. Doyle E, Ward S, Oomen-Early J. The process of community health education and promotion. 435 p.
10. Ariani NP, Sudja N. Formation of School Health Cadres and Stress Management Interventions to Reduce Adolescent Smoking Behavior in School. 2013;469–73.
11. Kumar S, Bothra V, Mairebam D. A dedicated public health cadre: Urgent and critical to improve health in India. Vol. 41, *Indian Journal of Community Medicine*. Medknow Publications; 2016. p. 253–5.