The Effectiveness of "Segi Busui" Booklet Media toward Knowledge and Attitude concerning Balanced Nutrition in Breastfeeding Mothers of 0-6 Months

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ABSTRACT

Background: Balanced nutrition for mothers during breastfeeding is closely related to breast milk production, puerperal recovery, and other influences on the sustainability of the puerperal or breastfeeding mother. The thing that needs to concern is that if the nutrition for breastfeeding mothers is not met, the nutritional needs for breast milk production will be taken from the mothers' body reserves. This condition will cause the mother to experience the risk of disease and chronic malnutrition. This study aims to develop the "Segi Busui" Booklet media and to determine the effectiveness of the "Segi Busui" booklet media toward knowledge and attitude concerning balanced nutrition in breastfeeding mothers of 0-6 months babies.

Subjects and Method: The method used in the study was Research and Development (RnD) using the Borg and Gall model. The type of study used to determine the effectiveness was pre-experimental with one group pretest-posttest design. The sample in this study was 48 breastfeeding mothers of 0-6 months babies. The dependent variables were knowledge and attitudes. The independent variable was the booklet "Segi Busui". The data were collected using questionnaires. The analysis technique used was the Wilcoxon test.

Results: The average score of maternal knowledge increased after (Mean= 19.65; SD= 0.93) the "Segi Busui" booklet intervention compared to before the intervention (Mean= 13.06; SD= 1.74), and the result was statistically significant (p<0.001). Meanwhile, the maternal attitude score increased after (Mean= 66.71; SD= 3.48) the "Segi Busui" booklet intervention compared to before the intervention (Mean= 53.60; SD= 5.93), and the result was statistically significant (p<0.001)

Conclusion: The “Segi Busui” booklet media is effective in increasing knowledge and attitudes concerning balanced nutrition in breastfeeding mothers of 0-6 months babies.

Keywords: booklet media, knowledge, attitude, balanced nutrition of breastfeeding mothers.

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mothers are classified as nutritionally vulnerable because breast milk which is the main food for babies is obtained from mothers (Zahro et al., 2016).

The balance between incoming nutrients and the nutrients needed for optimal health is very important, including for a breastfeeding mother. Nutritional status can be used as an indicator that can determine the status of nutritional fulfillment. Mothers with good nutritional status are able to produce breast milk smoothly with sufficient nutritional content (Wardana et al., 2018). Numerous factors affect nutritional status, one of which is the mother's diet or nutritional intake. A balanced nutritional diet for mothers during breastfeeding is closely related to breast milk production, postpartum recovery, and other influences that affect the sustainability of puerperal or breastfeeding mothers.

Based on the Nutritional Adequacy Rate (AKG), breastfeeding mothers of babies up to 6 months of age require additional energy adequacy of 330 kcal and additional protein adequacy of 20 g (Ministry of Health of the Republic of Indonesia, 2016). The results of a 2014 survey on individual food consumption in Indonesia showed that energy and protein consumption in the breastfeeding age group was included in the category of deficient, that was 50%, with energy consumption <70% from Nutritional Adequacy Rate and 33.8% with protein consumption <80% of Nutritional Adequacy Rate (Ministry of Health RI, 2016).

The nutritional needs of breastfeeding mothers increase by 25% not only to meet their nutritional needs but the mother's diet during breastfeeding will indirectly determine the nutritional status of the baby. If breastfeeding mothers have a good diet, the better the nutritional status of both breastfeeding mothers and babies (Manggabarani et al., 2018). The implementation of a good diet is very important to concern by breastfeeding mothers, however in fact the diet of breastfeeding mothers is not all good, a study on breastfeeding mothers in Lowokwaru, Malang shows that 75% have a good diet, and 25% have an adequate diet (Imasrani et al., 2016).

There are still mothers who do not pay attention to the nutritional intake of the food they consume while breastfeeding and do not regulate their diet. The problem of breastfeeding mothers in the consumption of nutritious foods during breastfeeding is influenced among others by nutritional knowledge, and lack of knowledge concerning the importance of nutritional needs during breastfeeding. This is due to the lack of information concerning the consumption of nutritious foods during breastfeeding, which affects the mother's diet and inhibits breast milk production (Rochmah et al., 2016). A person's level of nutritional knowledge will affect the attitudes in food selection and implementation which eventually will have an impact on a person's nutritional status (Nadimin et al., 2010). A person's attitude is closely related to the knowledge they have, in general, the higher a person's level of knowledge, the better his attitude will be.

According to Nadimin et al. (2010) that there is a significant correlation between knowledge and the nutritional status of breastfeeding mothers. The better nutritional knowledge that breastfeeding mothers have, the better their nutritional status. Nutritional knowledge during lactation will make the mother able to properly regulate the amount, type, and schedule of food. This is in line with a study by Rahmanindar and Rizqoh (2019) which states that there is a correlation between knowledge and attitudes in fulfilling nutritional needs with the nutritional status of puerperal mothers at the Jatinegara Community Health Center in Beringharjo, Yogyakarta, Indonesia. The implementation of a good diet is very important to concern by breastfeeding mothers, however in fact the diet of breastfeeding mothers is not all good, a study on breastfeeding mothers in Lowokwaru, Malang shows that 75% have a good diet, and 25% have an adequate diet (Imasrani et al., 2016).

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2018 and the results discover that there is a meaningful correlation between knowledge of puerperal mother in meeting nutritional needs and the nutritional status of puerperal mothers.

Based on the preliminary study and observation conducted at Karanganyar Community Health Center, Semarang on 10 breastfeeding mothers to discover knowledge and attitudes concerning balanced nutrition, it is revealed that there were still 7 (70%) breastfeeding mothers had insufficient knowledge, the majority of breastfeeding mothers did not know the benefits of eating nutritious food during breastfeeding and mothers’ nutritional needs of during breastfeeding. In addition to this, it was also discovered that there were 5 (50%) breastfeeding mothers with a less supportive attitude related to balanced nutrition during breastfeeding, the majority of breastfeeding mothers did not pay enough attention to the food they would consume each day. The information obtained from the 10 breastfeeding mothers revealed that 60% had received education on balanced nutrition, while 40% had not received education related to balanced nutrition. The implementation of the education was conducted by lecture method and PowerPoint presentations so that the health information delivered by the communicator was not properly conveyed to the communicant.

From the problems that occur in the working area of Karanganyar Community Health Center, it can be concluded that there was still a lack of knowledge and attitude of mothers, but regarding health education activities, especially concerning balanced nutrition for breastfeeding mothers, it had been carried out but it was not yet optimal in its delivery, therefore it is necessary to develop a health education media that is able to attract and support the breastfeeding mothers to manage in understanding the material. Good knowledge is one of the efforts to improve a positive attitude, thus, the right way to increase knowledge is by providing health education or education. The process to obtain effective results and success in providing education or health education, requires tools or process support for capturing information which is called educational media. The media has a very important role to determine the success of the message delivery process. Media can be said to be effective if the media facilitates the fluent delivery of information and the selection of media in conveying the message made by the disseminator to be clearly received by the recipients so that the disseminator’s intention can be achieved (Triulandari, 2021). Some of the media possible to use include print media and electronic media. Print media such as booklets, leaflets, books, flyers, flip charts, and posters. Electronic media such as television, radio, and video as well as board media (Notoatmodjo, 2014).

The health education media that the study focused on was booklet-based print media. This booklet media was chosen because it could be distributed to all circles. The emergence process of an attitude in a person is preceded by the presence of a knowing process. Factors capable of forming attitudes in a person are personality, intelligence, and interest. Booklet media are considered to draw interest so that they can change attitudes (Ersila et al., 2021).

A Media booklet is one of the educational media that can be used as a tool in delivering information more comprehensively because it contains important points in the form of text accompanied by interesting images and in accordance with the topic of discussion so that it can stimulate the audience in improving knowledge, attitudes and it is expected to continue with behavior change. The use of booklet media itself has
two advantages compared to other media, it is compact and convenient to read at any time because the design is in the form of a small size book, and it can increase one's understanding because it contains detailed information or material and contains the greater extent of information (Muyassaroh dan Isharyanti, 2020).

The booklet media "Segi Busui" (about the nutrition of breastfeeding mothers) is a book-shaped health education media that explains balanced nutrition for breastfeeding mothers, equipped with texts and pictures that are adapted to the material to be discussed. The information in the booklet is clearly arranged using simple language so that it is easy to understand well by the target, in addition, the interesting images in the booklet will attract breastfeeding mothers to read and focus on the information conveyed because it does not make the reader bored quickly. The development of this "segibusui" booklet media aims to make breastfeeding mothers interested and eager to learn it, thus it is expected to be able to increase the knowledge and attitudes of breastfeeding mothers concerning balanced nutrition during breastfeeding. The study aims to develop "Segi Busui" booklet media and analyze the effectiveness of the media booklet "Segi Busui"

SUBJECTS AND METHOD

1. Study Design
This study was Research and Development (RnD) using the Borg and Gall model. Type of the study used to determine the effectiveness was pre-experimental with one group pretest-posttest design. The data used in this study were the results of the questionnaires for the analysis of needs, feasibility, student responses, and questionnaire results. The analysis techniques used were description, normality test and Wilcoxon test.

2. Population and Sample
The population in this study was all breastfeeding mothers of 0-6 months babies in the working area of Karanganyar Community Health Center. The sample in this study was conducted toward breastfeeding mothers with a total of 48 breastfeeding mothers of 0-6 months. The data collection technique used was purposive sampling.

3. Study Variables
The independent variable in this study was the "Segi Busui" Booklet. The dependent variables were the knowledge and attitude of breastfeeding mothers of 0-6 months babies after using the "Segi Busui" Booklet.

4. Operational Definition
The "Segi Busui' booklet was a book-shaped health education media that explains balanced nutrition for breastfeeding mothers equipped with text and pictures. Knowledge was an effort made by a person in absorbing information from objects using the various senses possessed in learning something and various things to produce the process from not knowing to knowing. An attitude was a reaction or response of a person that is still concealed toward a stimulus or object.

5. Study Instruments
This study used a questionnaire about how students' knowledge and attitudes before and after using the "Segi Busui" booklet media that had been developed.

6. Data Analysis
The data analysis used was excel and with the help of SPSS programs.

7. Study Ethics
The study has obtained Ethical Clearance Number: 382/KEPK/EC/2022 which states that the study was feasible and had met the study requirements.

RESULTS

1. Characteristics Subject
The subjects of the study were breastfeeding...
mothers of 0-6 months babies in the working area of Karanganyar Community Health Center. The result of the assessment on knowledge of breastfeeding mothers before education with the "Segi Busui" booklet media indicated that 15 (31.3%) subjects were categorized with good knowledge and 33 (68.8%) were categorized with insufficient knowledge, after obtaining the "Segi Busui" booklet media the knowledge of breastfeeding mothers increased to 32 (66.7%) subjects were categorized with good knowledge and 16 (33.3%) subjects were categorized with insufficient knowledge. While the results of the assessment on the attitude of breastfeeding mothers before education with the "Segi Busui" booklet media indicated that 23 (47.9%) subjects had a positive attitude and 25 (52.1%) subjects had negative attitudes, and after using the booklet media "Segi Busui" the positive attitudes of breastfeeding mothers increased to 34 (70.8%) subjects and 14 (29.2%) subjects with negative attitudes (Table 1).

2. Normality Test
The normality test of the sample data was conducted using the Shapiro-Wilk test because the number of subjects was <50. The sample data criteria were normally distributed when the p values >0.05 (Table 2).

3. Wilcoxon Test
This study used the Wilcoxon test that indicated that the average score of maternal knowledge increased (Mean= 19.65; SD= 0.93) after "Segi Busui" booklet intervention compared to before (Mean= 13.06; SD= 1.74), and the result was statistically significant (p<0.001). Meanwhile, the average score of maternal attitudes increased (Mean= 66.71; SD= 3.48) "Segi Busui" after booklet intervention compared to before (Mean= 53.60; SD= 5.93), and the result was statistically significant (p<0.001) (Table 3).

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<tr>
<th>Table 1. Frequency Distribution of Knowledge and Attitude of Breastfeeding Mothers Before and After Using the Booklet &quot;Segi Busui&quot;</th>
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<td>Knowledge</td>
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<th>Table 2. Normality Test Results</th>
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<th>Table 3. Differences in the average scores of knowledge and attitude before and after the &quot;Segi Busui&quot; Booklet intervention (n= 48)</th>
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DISCUSSION

1. Knowledge before and after using the media booklet "Segi Busui"

Before the education using the booklet media "Segi Busui" was conducted, breastfeeding mothers underwent a pretest to find out the breastfeeding mothers level of knowledge. After obtaining education and booklet media, breastfeeding mothers also underwent a posttest with identical questions to the pretest. It was conducted to discover the mothers’ level of knowledge and was also a success indicator of the education using the booklet media.

From the table, it can be seen that before the distribution of the booklet media, some subjects had good knowledge with a total of 15 (31.3%) subjects, after distribution of the booklet the number of subjects with good knowledge increased to 32 (66.7%) subjects. Mother’s knowledge increased after obtaining a booklet media, this happens because someone who has obtained information will increase his/her knowledge.

In line with a study by Pratiwi and Puspitasari (2017) which shows that nutrition education with booklet media tends to increase knowledge compared to without booklet media. This is also supported by Nadiya and Rahma's study (2020) which states that there is an effect of education with booklet media on pregnant women’s knowledge concerning nutrition during pregnancy in Pulo Kiton Village, Juang City District, Bireuen Regency in 2019.

Knowledge is a result obtained through an effort made by a person in absorbing information from objects using sensing, such as the senses of sight and hearing. Therefore, the more positive things a person hears and sees, the greater the positive actions that the person performs.

2. Attitudes before and after using the "Segi Busui" booklet media

Before the education using the "Segi Busui" booklet media was conducted, breastfeeding mothers underwent a pretest to discover the attitude of breastfeeding mothers. After obtaining an education and media booklet, breastfeeding mothers underwent a posttest with identical questions to the pretest. It was conducted to discover the attitude of the mother and was also a success indicator of the education using the booklet media.

From the table, it can be seen that before obtaining a booklet media, some mothers had a positive attitude with a total of 23 (47.9%) subjects, after the education and obtaining the booklet, the positive attitude increased to 34 subjects (70.8%). The mother's attitude concerning balanced nutrition is the mother's response toward balanced nutrition during breastfeeding since the attitude is a person's concealed response to a stimulus or object. An attitude is simply a tendency to behave in a certain way towards an object. Thus, an attitude is a view, opinion, response, or judgment, and also a person's feeling towards a stimulus or object accompanied by a tendency to act (Notoatmodjo, 2003)

Providing education to breastfeeding mothers is one way to increase the knowledge and understanding of breastfeeding mothers by providing cognitive understanding, so that it is expected that there will be changes in a more positive direction, in this case towards the fulfillment of balanced nutrition during breastfeeding, which will ultimately lead to changes in health behaviors. The provision of information through booklet media is a factor that can influence the attitude of breastfeeding mothers, to be able to make the right decisions in fulfilling balanced nutrition during breastfeeding.

3. The Effectiveness of the "Segi Busui" Booklet Media toward Knowledge and Attitudes

Based on the results of the study, the average score of maternal knowledge concerning balanced nutrition before the intervention
was 13.06 and the average score of knowledge increased to 19.65, whereas the average score of maternal attitude concerning balanced nutrition before the intervention was 53.60 and the average score of attitude increased to 66.71. There was an increase in the average knowledge and attitude concerning balanced nutrition in breastfeeding mothers of 0-6 months babies with booklet media, it can be seen from the results of statistical analysis with the Wilcoxon test which obtained p values <0.001, thus it was determined that Ho was rejected and Ha was accepted. Therefore, it can be concluded that the provision of a booklet media concerning balanced nutrition toward the knowledge and attitudes of breastfeeding mothers of 0-6 months babies is effective. This is in accordance with the theory that the media is a means to convey messages to the target so that it is easily understood by the intended target, and the media has the benefit of stimulating interest, overcoming the limitations of time, place, language, and sensory power, overcoming the passive attitude of the target and can provide stimuli to know, explore, and finally provide better understanding and stimulate the target to forward messages to others (Sazani, 2016).

Knowledge is an important factor in the establishment of one's actions. Knowledge is based on proper understanding to foster the expected behavior (Hana et al., 2021). A person’s knowledge of an object also contains two aspects, namely the positive aspect and the negative aspect. These two aspects will eventually determine a person's attitude toward a particular object. The more positive aspects of the object are discovered, the more positive the attitude toward the object (Budiman and Riyanto, 2013).

The development of health promotion media for breastfeeding mothers through "Segi Busui" booklet media. "Segi Busui" booklet media is a media to convey health messages concerning balanced nutrition during breastfeeding in the form of a book with a combination of text and pictures. The advantages of the booklet media are that it delivers a more complete, comprehensive, clear, and educational information. In addition, this booklet used as a health promotion media can be taken home, so it can be kept at home and read frequently. The advantage in terms of communication is that booklet media can be used by various groups of people (Retno, 2016).

This increase in knowledge and attitudes is generated from the learning that uses all the senses, of which 13% are obtained through the sense of hearing and 35-55% through the senses of hearing and sight. This is in accordance with the purpose of providing a booklet media, which is to generate an increase in knowledge that will affect changes in attitudes (Puspitaningrum et al., 2017).

Based on the results above, there is an increase in knowledge and attitudes after obtaining the booklet, it is in line with the results of a study conducted by Maharani and Dwi (2020) that states that there is an influence of knowledge and attitudes before and after obtaining the 'Piring Untuk Bumil' booklet concerning balanced nutrition for pregnant women in the First Trimester. The results of this study are also supported by the results of a study conducted by Zahra et al. (2021) which shows results that there is an increase in the knowledge and attitudes of pregnant women before and after obtaining education interventions using booklet media concerning stunting. Thus, the "Segi Busui" booklet can make it easier for breastfeeding mothers to increase knowledge and understanding and encourage a positive attitude about the importance of consuming balanced nutrition during breastfeeding.

In conclusion, this development research with the Borg&Gall procedure has
met the validation criteria of 2 media experts and 2 material experts with a total average score of 98.7%, 86.2%, 64.3%, and 90.5%, respectively. The results show that the "Segi Busui" booklet media is categorized as the very valid criteria. The results of statistical analysis with the Wilcoxon test obtained a p value of <0.001, therefore Ho was rejected, Ha was accepted, meaning that there is an effectiveness of the "Segi Busui" booklet media toward knowledge and attitudes concerning balanced nutrition in breastfeeding mothers of 0-6 months babies at the Karanganyar Community Health Center.

AUTHOR CONTRIBUTION
Mey Linda Darmayanti was the main researcher who selected topics, searched, and collected study data. Ari Yuniastuti and Irwan Budiono contributed to analyzing data and reviewing study documents.

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The study was self-funded.

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CONFLICT OF INTEREST
There was no conflict of interest in the study.

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