

Audiovisual Demonstration Methods on The Knowledge and Behavior of Cadres About Stimulation of Massage Therapy in Improving Nutrition Status in Children

Intan Fazrin*, Suci Anggraeni, Heri Saputro

Institut Ilmu Kesehatan STRADA Indonesia

* Correspondent Author: : intan86fazrin@gmail.com

ABSTRACT

This study uses a pre-experimental one group pre-post test design. The population in this study were all cadres of Posyandu under five in the working area of the Pesantren II Public Health Center, Pakunden Village, Kediri City, which amounted to 47 people. The number of respondents as many as 38 people were selected randomly using simple random sampling. Data analysis used paired t test.

The results of the study showed that the mean value of knowledge before was 6.37 and after 7.42. The mean value for behavior before is 19.24 and after 19.79, so it can be concluded that there is an increase in knowledge and behavior of cadres.

There was an effect of giving the audiovisual demonstration method on the knowledge of cadres about massage therapy stimulation in improving nutritional status in children (Sig. 0.003 <0.05) and cadres' behavior about massage therapy stimulation (Sig. 0.004 <0.05).

The audiovisual demonstration method has the advantage that the process of receiving the material will be more memorable in depth so as to form a good understanding which has an impact on increasing individual knowledge and behavior.

Keywords: Audiovisual Demonstration, Massage Therapy, Knowledge, Behavior

BACKGROUND

Indonesia is experiencing malnutrition problems such as stunting, low body weight, and very thin children (wasting) which continue to affect children under five. Stunting reflects chronic malnutrition and can have long-term effects, resulting in stunted growth, decreased cognitive and mental abilities, susceptibility to disease, low economic productivity, and low quality of reproductive output. Wasting is the result of acute malnutrition and high frequency of illness in children; these conditions increase the risk of child mortality (1). Child stunting is the most common form of malnutrition in Indonesia and remains a major challenge.

Riskesdas data in 2018 showed the prevalence of stunting in children under two years of age was 29.9%. This figure shows a decline in recent years and the stunting reduction target for children under two years of age in 2019 has been met where this figure is close to the target in the RPJMN of 28% in 2019 (2). Indonesia faces complex challenges due to the three burdens that are likely to worsen due to the COVID-19 pandemic. Children can be malnourished for a variety of reasons (direct, pre-existing and underlying causes. The three most common direct causes of malnutrition are: inadequate breastfeeding practices and poor diet, plus suboptimal parenting practices; nutrition and care inadequate for pregnant women and mothers, and high rates of infectious diseases mainly due to an unsanitary living environment and inadequate health services.

These factors are exacerbated by widespread poverty, unemployment, and low levels of education (3). Nutrition education interventions are able to improve the desired behavior change (4). Health efforts at the Integrated Service Post (Posyandu) in adapting new habits are still carried out as an effort to accelerate stunting prevention, improve maternal and child health, and provide counseling. The Posyandu program is carried out in each village by cadres who have been given knowledge and training by health workers. The purpose of using cadres as Posyandu implementers is to promote knowledge about health, especially children's growth and development and provide stimulation. The cadres of the Pakunden area of the Pesantren 2 Puskesmas have never received education through audiovisual demonstrations, so far only representatives have attended cadre training before the COVID-19 pandemic. Along with the ongoing epidemic that hit all countries in the world, every country inevitably implements adaptations of new habits in daily life. Likewise, in Indonesia, people must be able to carry out daily activities by adapting to be able to coexist with Coronavirus Disease 2019 (Covid-19), because people need to be active to meet their needs with new regulations, lifestyles and habits by utilizing technological adaptations.

Massage therapy is one of the stimuli used to improve the nutritional status of children. Stimulation of massage therapy which is carried out regularly on toddlers using massage on the legs, abdomen, chest, hands, back, and stretching movements can increase body weight. Babies who are given massage will increase the activity of the neurotransmitter serotonin, which increases the capacity of receptor cells that function to bind to glucocorticoids, resulting in a decrease in adrenal hormones. In addition, massage can stimulate the vagus nerve which will increase enzyme levels so that gastrin and insulin absorption can be carried out better and increase the peristaltic movement of the baby's intestines to become hungry faster (5).

Nutritional status that affects children's optimal growth and development, effectiveness of baby massage and spa to gain weight in malnutrition. The intervention was carried out for 5 days in 1 week with a time of 30 minutes (6). Massage in the abdominal area can stimulate cell metabolism and increase the distribution of nutrients to cells and tissues.

Massage can trigger parasympathetic nervous responses so that increasing the digestive activity of hunger can be the effect of massage (7). Abdominal massage can promote the occurrence of feces by increasing intra-abdominal pressure, increasing intestinal peristalsis and reducing colonic transit time so that it can increase the frequency of bowel movements (8). Stimulation of infant massage increases body weight, insulin-like growth factor 1 (IGF-1) levels, and reduces cortisol in malnourished infants aged 6-24 months. It is recommended for every mother to apply massage stimulation to her baby for alternative treatments to improve the nutritional status of malnourished babies (9). Insulin-like growth factor (IGF-1) plays an important role in growth and development, as well as regulation and overall cellular metabolism in the human body. IGF-1 is mainly produced by the liver under growth hormone stimulation and has a systemic growth effect (10) (11). Increased circulation IGF-1 concentration and weight gain can be affected by energy and protein intake (12). The purpose of this study was to determine the effect of the audiovisual demonstration method on the knowledge and behavior of cadres about massage therapy stimulation in improving nutritional status in children.

METHODS

This study uses a pre-experimental one group pre-post test design. The population in this study was all cadres of Posyandu under five in the working area of the Pesantren II Public Health Center, Pakunden Village, Kediri City, which amounted to 47 people. The number of respondents as many as 38 people were selected randomly using simple random sampling. Data analysis using paired t test.

RESULTS

Frequency Distribution of Respondents

| Characteristics of Respondents | Frequency | Percentage (%) |
|--------------------------------|-----------|----------------|
| Age | 38 | 100 |
| 25-34 | 2 | 5 |
| 35-44 | 19 | 50 |
| 45-54 | 15 | 40 |
| 55-64 | 2 | 5 |
| Gender | 38 | 100 |
| Female | 38 | 100 |
| Education | 38 | 100 |
| Primary school | 3 | 8 |
| Junior high school | 7 | 19 |
| Senior high school | 21 | 55 |
| Diploma | 2 | 5 |
| Bachelor | 5 | 13 |
| Pekerjaan | 38 | 100 |
| IRT (housewife) | 25 | 66 |
| Tailor | 3 | 7 |
| Laundry | 1 | 3 |
| Merchant | 7 | 18 |
| Entrepreneur | 1 | 3 |
| Teacher | 1 | 3 |
| Long been a cadre | 38 | 100 |
| <1 year | 4 | 11 |
| 1 - 4 years | 16 | 42 |
| 5 -10 years | 14 | 36 |
| >10 years | 4 | 11 |

| | | |
|--|-----------|------------|
| Nutrition training experience | 38 | 100 |
| Ever | 14 | 37 |
| Never | 24 | 63 |
| Massage therapy training experience | 38 | 100 |
| Ever | 1 | 3 |
| Never | 37 | 97 |
| Experience Training for early detection of growth and development | 38 | 100 |
| Ever | 10 | 26 |
| Never | 28 | 74 |
| Source of information about nutrition | 38 | 100 |
| Social media | 1 | 3 |
| Health workers | 32 | 84 |
| Other | 5 | 13 |
| Source of information about massage therapy | 38 | 100 |
| Social media | 15 | 39 |
| Health workers | 11 | 29 |
| Other | 12 | 32 |
| Source of information about early detection of growth and development | 38 | 100 |
| Social media | 30 | 79 |
| Health workers | 5 | 13 |
| Other | 3 | 8 |

This study took data from 38 respondents, all of whom were posyandu cadres in the work area of the pesantren II health center. The Islamic boarding school II has 8 posyandu namely Orchid I, Orchid II, Lotus I, Lotus II, Blue Gem, Cahaya Gem, Seruni and Dahlia. Characteristics of respondents in this study are as follows, half of the number of respondents aged 35 - 44 years as many as 19 people or 50%, all respondents are female, from the level of education more than half of the respondents are SMA/SLTA as many as 21 people or by 55% , the type of work is mostly IRT (housewife) as many as 25 people or 66%, and the length of time being a cadre is mostly in the range of 1-4 years as many as 16 people or 42%. Based on the experience of participating in training, most of the respondents have never attended nutrition training, namely 24 people or 63%, most have never attended massage therapy training as many as 37 people or 97%, and most have never attended training on early detection of growth and development. as many as 28 people or by 74%. Based on the source of information, most respondents received information about nutrition from health workers as many as 32 people or 84%, information about massage therapy was mostly obtained from social media as many as 15 people or 39%, and mostly for sources of information about early detection of growth and development. obtained from health workers as many as 30 people or 79%.

The Effect Of The Audiovisual Demonstration Method On The Knowledge And Behavior Of Cadres About Massage Therapy Stimulation

| No | Research Variable | Mean <i>Pre</i> | Mean <i>Post</i> | Grand Mean | Sig | T value |
|----|------------------------------|--------------------|---------------------|---------------|-------|---------|
| 1. | Knowledge of massage therapy | 6,37 | 7,42 | 1,053 | 0.003 | -3,224 |
| 2. | Massage therapy behavior | 19,24 | 19,79 | 0,553 | 0,000 | -3.959 |

The results of the study showed that the mean value of knowledge before was 6.37 and after 7.42. The mean value for behavior before is 19.24 and after 19.79, so it can be

concluded that there is an increase in knowledge and behavior of cadres. This study used data analysis, namely paired t-test, the results showed that there was an effect of providing cadre knowledge about massage therapy stimulation in improving nutritional status in children (Sig. 0.003 <0.05) and cadre behavior about massage therapy stimulation (Sig. 0.000 <0.05).

DISCUSSION

Based on the results of the paired t-test statistical test, it was found that there was an effect of giving cadres knowledge about massage therapy stimulation in improving nutritional status in children (Sig. 0.003 <0.05) and cadre behavior about massage therapy stimulation (Sig. 0.000 <0.05). The result of the mean value of knowledge before is 6.37 and after 7.42. The mean value for behavior before is 19.24 and after 19.79, so it can be concluded that there is an increase in knowledge and behavior of cadres.

These results indicate that the provision of the audiovisual demonstration method is proven to be able to increase the knowledge and behavior of cadres in massaging babies independently, especially as a form of stimulus in improving nutritional status in children. This is in accordance with the theory which states that if a person is given health information, then an evaluation is held about what he already knows, then the next stage is expected to be able to repeat and practice what he already knows (13). Cadres can do baby massage properly and correctly if it is supported by the knowledge they have. Increased knowledge will raise awareness and cause behavior change, because behavior based on knowledge will be lasting (14).

The results of a similar study conducted by Pravella showed that there was an effect of giving demonstration methods, booklets, and videos on the behavior of mothers doing baby massage with a p-value of 0.000. The use of demonstrations, booklets, and videos in the implementation of health education involves many senses including visual, audio and audiovisual so that the process of receiving information and learning is easier to understand (15). Susi Purwanti's research (2016) also proves that there are differences in the effect of health education using video media and media modules on changes in knowledge and behavior about mindfulness practices in class XI high school students. The results obtained after providing health education using video media were an increase in knowledge of 80.8% and a change in behavior according to the guidelines of 76.9% in class XI high school students (16). Another study which states the effect of using the demonstration method is Astuti's (2016) study entitled the effect of health education on breastfeeding with the demonstration method on the ability of breastfeeding mothers in the maternity home in the Banjarsari Surakarta area with a p-value of 0.000 which means there is a significant increase between the mother's ability breastfeeding before and after counseling (17).

Based on this review, the researcher argues that the use of the audiovisual demonstration method as a medium for delivering information has the advantage that the process of receiving the material will be more memorable in depth so as to form a good understanding which has an impact on increasing individual knowledge and behavior. The easier the delivery of information received by the individual it will encourage increased knowledge and behavior change in the individual.

CONCLUSION

The results of the study showed that the mean value of knowledge before was 6.37 and after 7.42. The mean value for behavior before is 19.24 and after 19.79, so it can be concluded that there is an increase in knowledge and behavior of cadres.

There is an effect of giving cadres knowledge about massage therapy stimulation in improving nutritional status in children.

REFERENCES

UNICEF. 2020. *Situasi Anak di Indonesia – Tren, Peluang, dan Tantangan Dalam Memenuhi Hak-Hak Anak*. Jakarta.

Direktorat Kesehatan dan Gizi masyarakat Kedepuitian pembangunan manusia, masyarakat dan kebudakementerian perencanaan pembangunan nasional Badan perencanaan pembangunan nasional. 2019. *Pembangunan Gizi Di Indonesia*. Jakarta.

UNICEF.2020. *COVID-19 dan Anak – anak di Indonesia*. United Nations Children’s Fund. Jakarta.

Contento IR.. *Nutrition Education: Lingking Theory and practice*. 2Ed. Canada;Jones and Bartlett Publisher;2011

Sutarni, Kusmini, Melyana.2016 *Love Massage Series: Baby massage dan Mom Massage*. Indonesian Holistic Care Assosiation.

Suryaningsih, & Rodiyatun. (2019). Effectiveness of Baby Massage and Spa on Increasing Weight of Baby with Malnutrition. *Indian Journal of Forensic Medicine & Toxicology*, 13(4), 1709-1793. DOI Number: 10.5958/0973-9130.2019.00553.X

Braun MB, Simonsin SJ. *Introduction to massage therapy*. Baltimore: Lippincott Williams and Wilkins; 2005.

Suarsyaf HZ, Sumekar DW. The influence of massage on constipation. *Majority*. 2015;4(9):98102.

Sudarmi, Sukrama, I. M., Sutirtayasa, I. P., Weta, I. W., & Irianto. (2020). Influence of baby massage stimulation on the mprovement of nutritional status, IGF-1, and. *Bali Medical Journal*, 9(1), 36-40.

Bonefeld K, Moler S.2011 Insulin-Like Growth Factor-1 and The Liver. *Liver Int*. 31(7):911-919.

Yang JY, Tseng JY, Chen CY, Yeh CC. 2013 Changes in maternal serum insulin-like growth factor-I during pregnancy and its relationship to maternal anthropometry. *J Chin Med Assoc*. 76(11):635-639.

Smith JT. 2010Insulin-Like Growth Factor-I Regulation of Immune Function: A Potential Therapeutic Target in Autoimmune Diseases. *Pharmacological Reviews*. 62(2):199–236.

Notoatmodjo, S. Promosi kesehatan dan ilmu perilaku. Jakarta: Rineka Cipta; 2007

Mubarak, W.I., Chayatin, N., Rozikin, K & Supradi. 2007. Promosi Kesehatan Sebuah Pengantar Proses Belajar Mengajar dalam Pendidikan. Yogyakarta: Graha Ilmu.

Pravella Melinda, Eka Santi, Emmelia Astika Fitri D. Metode demonstrasi, booklet, dan video terhadap perilaku ibu melakukan pijat bayi. *Nerspedia*, April 2018; 1(1): 47-52.

Purwanti, S. Perbedaan pengaruh pendidikan kesehatan dengan menggunakan media video dan media modul terhadap perubahan pengetahuan dan perilaku tentang praktik

sadari pada siswi kelas XI SMA. Mahakam Midwifery Journal 2016;1(1):10-17.
10.

Astuti SLD, Surasmi A. Pengaruh penyuluhan kesehatan tentang menyusui dengan metode demonstrasi terhadap kemampuan ibu menyusui di Rumah Bersalin Wilayah Banjarsari Surakarta. Jurnal Terpadu Ilmu Kesehatan 2016; 5(2):110-237.