Abstract. Stunting is one of the significant nutritional issues around the world. Stunting is a common phenomenon among Indonesian and Malaysian children. In 2019, statistics from the National Health Morbidity Survey (NHMS) Malaysia reported that 21.8% of Malaysian children under four years were stunted. Some studies revealed that exclusive breastfeeding was one of the highest risk factors for stunting. All health workers caring for women and children during the post-natal period and beyond have a crucial role in establishing and sustaining breastfeeding. Many health workers cannot fulfill this role effectively because they have yet to be trained. The materials in the training course are designed to make it possible for trainers, even those with limited experience in teaching the subject, to conduct up-to-date and practical training. Community service activities are carried out at Tengku Ampuan Afzan Hospital in Kuantan, Malaysia. The procedure for community service activities is divided into several stages; the first was coordination with the Head of the Tengku Ampuan Afzan Hospital in Kuantan, Malaysia. The next stage is implementing a mother-baby-friendly services training course for maternity staff to prevent stunting. The last stage is the evaluation of the competencies of nurses. The results of the community service show that 25 nurses have the competencies to become exclusive breastfeeding counselors and are certified.

Keywords: children, health, stunting

1 Introduction

The worldwide prevalence of stunting in children under five years of age was 22.2%, equivalent to 150.8 million children in 2017. Indonesia continued to have a high prevalence of stunting. In 2017, the global stunting rate for children under five was 22.2% or approximately 150.8 million children1. There are 83.6 million of stunted children under five in Asia, with South Asia having the highest proportion (58.7%) and Central Asia having the lowest (0.9%)2. In 2019, statistics from the National Health Morbidity Survey (NHMS) Malaysia reported that 21.8% of Malaysian children under the age of 4 years are stunted and that stunting in 2017 (16.6%) and 2016 (20.7%) was not much different. According to the World Health Organization (WHO), Indonesia has the third highest prevalence of stunting among children under five in the Southeast Asia/Southeast Asia Regional region. Results of data analysis on nutritional status monitoring showed that the prevalence of stunting among children aged 0–59 months in Indonesia was 29%, 29%, and
29.6% from 2015 to 2017, respectively. Furthermore, the prevalence of Basic Health Research Surveys was 32.9% in 2013 and 30.8% in 2018, above the defined limit of WHO (20%).1,3-7.

The stunting policy briefly stated that exclusive breastfeeding is one of the frameworks for action to reduce stunting.12 Some studies revealed that one of the highest risk factors for stunting was exclusive breastfeeding. Babies allowed to breastfeed early will get the colostrum, successfully obtain exclusive breast-feeding, and be breastfed longer. Children who are not exclusively breastfed have a 7.86 times higher risk of stunting1,8-10 than those who receive exclusive breastfeeding. Furthermore, children with no early breastfeeding initiation history are 2.63 times more likely to have stunting than those with early breastfeeding initiation history.

Efforts to fulfill nutrition have been initiated by WHO and UNICEF (United Nations Children's Fund) since 2009 by issuing recommendations adapted from the Global Strategy for Infant and Young Child Feeding, which consists of two main points, namely (1) exclusive breastfeeding until six months of age and (2) providing safe and nutritious complementary food starting at the age of six months while continuing breastfeeding remains until the age of two years or more12. Exclusive breastfeeding and complementary feeding are still not according to the WHO’s recommendations, which are estimated that only 34.8% of babies worldwide receive exclusive breastfeeding while the rest receive food or other fluids at an early age12. In Indonesia, the prevalence of exclusive breastfeeding is 54.3% 13. The provision of breast milk that is not optimal, one of which is the absence of exclusive breastfeeding, will affect the adequacy of nutrition, which may cause stunting. Intervention in stunting has good results if carried out during the first 1000 days of life.

The first few hours and days of a newborn baby's life are critical for establishing breastfeeding and providing mothers with the support they need to breastfeed successfully. Since 1991, the Baby-Friendly Hospital Initiative (BFHI) has helped to motivate facilities providing maternity and newborn services worldwide to better support breastfeeding. Many countries and organizations have adopted it. The BFHI aims to provide a healthcare environment that supports mothers to acquire the skills necessary to breastfeed for six months and to continue breastfeeding for two years or beyond. Breastfeeding and appropriate, safe, and timely complementary feeding are fundamental to children's health and development and essential for their mothers' health. WHO and UNICEF have long recognized the need for the promotion of exclusive breastfeeding in the first six months of life and sustained breastfeeding up to two years of age or beyond14.

Many mothers have difficulty in breastfeeding, and healthcare practices in many facilities hinder establishing breastfeeding. However, even mothers who initiate breastfeeding satisfactorily often start supplements or stop breastfeeding within a few weeks of delivery. This may result in malnutrition, an increasing problem in many countries. It has been estimated that improved breastfeeding practices would prevent 823,000 annual deaths in children younger than five years of age15,16. Information on how to feed infants comes from family beliefs, community practices, and information from health workers. Advertising and commercial promotion by food manufacturers is sometimes the source of information for many people, including families and health workers. It has often been difficult for health workers to discuss with families how to feed their infants best, owing to the confusing and often conflicting information available14.

All health workers caring for women and children during the postnatal period and beyond have a crucial role in establishing and sustaining breastfeeding. Many health workers cannot fulfill this role effectively because they have not been trained. Little time is assigned to communication and support skills for breastfeeding and infant feeding in the pre-service curricula of doctors, nurses, midwives, or other professionals. Hence, there is
an urgent need in all countries to train all those involved in breastfeeding in the immediate postnatal period in the skills needed to support and protect breastfeeding. The materials in this training course are designed to make it possible for trainers, even those with limited experience in teaching the subject, to conduct up-to-date and practical training.

Stunting is a common phenomenon in Malaysian children. In 2019, statistics from the National Health Morbidity Survey (NHMS) Malaysia reported that 21.8% of Malaysian children under the age of 4 years were stunted and that stunting in 2017 (16.6%) and 2016 (20.7%) was not much different. Within Malaysia, there is a disparity in the rates of stunting, with higher rates in Kelantan (34%), Terengganu (26.1%), and Pahang (25.7%) and the lowest rates in Kuala Lumpur (10.5%)17-19. The results of interviews with leaders and nurses at the Tengku Ampuan Afzan Kuantan Hospital in Malaysia revealed that the BFHI program had been implemented there but had not reduced stunting rates in children.

2 Methodology

The first activity in this community service activity is the improvement of the Baby-Friendly Community Initiative (BFCI) training course guidelines for maternity staff in collaboration with service members from International Islamic University Malaysia (Dr. Siti Hazariah and Dr. Mariam Muda). The development of BFCI training course guidelines for maternity staff was adapted from WHO guidelines.

Community service activities were carried out in Tengku Ampuan Afzan Hospital in Kuantan Malaysia. The target was 25 nurses in Tengku Ampuan Afzan Hospital in Kuantan, Malaysia. The procedure for community service activities was divided into several stages; the first was coordination with the Head of the Tengku Ampuan Afzan Hospital in Kuantan, Malaysia on the activities to be carried out. The next stage was a mother-baby-friendly community health services training course for maternity staff to prevent stunting. The last stage was the evaluation of the competencies of nurses. The output of this community service activity is a pilot project about a mother-baby friendly training course for maternity staff to prevent stunting and increase nurses' competencies related to stunting prevention.

The evaluation of training was done using Kirkpatrick's methods. Some training and development professionals believe that evaluation means measuring changes in behavior that occur as a result of training programs. Kirkpatrick was implemented in four levels to evaluate the training. The four levels represent a sequence of ways to evaluate programs. Each level is essential and has an impact on the next level. These are the four levels: Level 1—Reaction; Level 2—Learning; Level 3—Behavior; and Level 4—Results.

3 Results and Discussion

The nurses who attended the training totaled 25 nurses from Tengku Ampuan Afzan Hospital and other hospitals in Kuantan Malaysia (Figure 1).

The training methods used were discussion, practice, demonstration, role play, and direct implementation to patients at Tengku Ampuan Afzan Hospital, Kuantan Malaysia.
The Kirkpatrick method is used to evaluate the training program. The total number of nurses present at the training was 25. There are two types of training evaluation: reaction evaluation and learning evaluation.

### Table 1. Trainer evaluation

<table>
<thead>
<tr>
<th>Trainer evaluation</th>
<th>Excellent</th>
<th>Good</th>
<th>Average</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity of conveying the material</td>
<td>65%</td>
<td>35%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Ability to motivate participants</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Ability to use teaching media</td>
<td>70%</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Communication skills</td>
<td>80%</td>
<td>20%</td>
<td>10%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 1 shows that the majority of nurses rated the material in training activities as excellent and good.

### Table 2. Teaching evaluation based on level of evaluation form Kirkpatrick (n=25)

<table>
<thead>
<tr>
<th>Teaching evaluation</th>
<th>Before Training</th>
<th>After Training</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min-Max</td>
<td>Md±SD</td>
<td>Min-Max</td>
</tr>
<tr>
<td>Knowledge</td>
<td>25.00-40.00</td>
<td>31.00±4.15</td>
<td>31.00-50.00</td>
</tr>
<tr>
<td>Attitude</td>
<td>14.00-27.00</td>
<td>20.00±2.71</td>
<td>22.00-30.00</td>
</tr>
</tbody>
</table>

Note: *p<0.05 based on Wilcoxon test

Table 2 shows that there was an increase in knowledge and attitude following the training.

Promoting exclusive breastfeeding is one technique for reducing stunting rates in toddlers. Breastfeeding is the initial, primary, and healthiest natural food for babies. According to WHO, exclusive breastfeeding is breastfeeding only without the addition of other liquids, such as formula milk, water, orange juice, or other supplemental food, from the time the babies are born until they are six months old. The study’s results demonstrate that exclusive breastfeeding effectively preserves children's healthy growth and development. The WHO recommends exclusive breastfeeding for the first six months of life, followed by weaning food or MPASI until the children are two years old. However, the current global average coverage of exclusive breastfeeding is only 38% (WHO, 2021).

The Baby-Friendly Hospital Initiative (BFHI) is one of the WHO programs implemented since 1991 to enhance the coverage of exclusive breastfeeding. BFHI can be used in hospitals and health centers, and is a community-based effort to broaden the 10th
stage of the BFHI, which focuses on assisting breastfeeding mothers after they leave health facilities. Additionally, a supportive and instructional atmosphere must be created to encourage breastfeeding initiation and aid women in overcoming breastfeeding challenges. Several research studies have shown that BFCI can improve exclusive breastfeeding coverage.

Health staff are the first to advocate for exclusive breastfeeding for postpartum women. Health workers are supposed to educate and instruct mothers on exclusive breastfeeding before and after delivery. Empowering health workers at the health service level, particularly those who provide maternal inpatient care is critical to increasing postpartum mothers' knowledge, attitudes, and behavior in providing exclusive breastfeeding. Furthermore, health personnel can make an effort to deliver health education about the importance of education about stunting, its impacts, and prevention. Health workers can also provide information to increase knowledge about the influence of educating health professionals in implementing mother-and-baby-friendly health services on stunting preventive behavior.

4 Conclusion

The results of community service show that nurses who participate in training have increased knowledge and attitude about BFHI. Speaker and infrastructure evaluations were also very positive.

Thank you to LPM Universitas Muhammadiyah Yogyakarta for funding the entire process of this community service activity. We also want to thank Kulliyah of Nursing IIUM Malaysia and Hospital Tengku Ampuan Afzan for their help with this community service project.

References


