European Journal of Molecular & Clinical Medicine
ISSN 2515-8260 Volume 08, Issue 02, 2021

The Achievement of 12 Healthy Family Indicators and Healthy Family Index In Nulle Village- East Nusa Tenggara, Indonesia

Margareta Teli[1], Pius Selasa[2], Israfil[3]

[#1,3)] Department of Community Health Nursing-Health Polytechnic of Kupang, Indonesia
[2)] Departemen of Tropical Medicine-Health Polytechnic of Kupang, Indonesia
margaretateli77@gmail.com[1]
piusselasa@gmail.com[2)]
ahmadisrafil6@gmail.com [3)]

Abstract: Many Indonesian families have limited access to a high quality of health care services and still practiced unhealthy behaviors. Therefore, the healthy Indonesia program with a family approach aims to increase the accessibility of people to health services by home visits. The study aimed to analyze the healthy family index and to identify the 12 healthy family indicators coverage in Nulle Village East Nusa Tenggara Provinces. It will become tools for health facilities to create intervention based on the indicators which are not implemented by families. A household survey method was used to collect the data from 777 families in Nulle Village. Data was collected by using Indonesia's healthy family Questionnaire. The Healthy family index then was then determined according to three categories namely; healthy family (>0,80); pre-healthy family (0,50-0,80), and unhealthy family (<0,50). The study indicated that 56,49% of families were categorized as pre healthy families, 28,05% were healthy families and unhealthy families accounted for 15,44%. The lowest healthy indicators coverage were hypertension patients who take regular medicine (19,84%), followed by severe mental disorder patients who got access to medication (20%), and only 30,58% couple of childbearing age participated in the family planning program. The majority of the family are categorized as pre healthy families, therefore it is highly recommended that Public health Nurses should be more active to promote the 12 healthy family indicators. The family should be well informed so that they can improve the family's health quality.

Keywords: 12 healthy family indicators; healthy family index; Nulle Village-East Nusa Tenggara Indonesia

1. INTRODUCTION

According to Indonesian basic health research, many Indonesian families have limited access to a high quality of health care services and still practiced unhealthy behaviors. It is also accepted that 50,1% of the population is living in rural areas where most families do not get adequate health care services. As consequence health outcomes are lower particularly in eastern Indonesian Provinces. Many studies have approved worldwide that access to healthcare services is critical to good health. Access to health services contributes to knowledge and behaviors. A healthy Indonesian program with a family approach aims to increase the accessibility of people to health services. The main activities of the program are a home visit activity to conduct comprehensive assessments on how does family implements the 12 health family indicators. The next activity will be to analyze the level of the healthy family index. The result will benefit the frontline health workers to carry out intervention during home visits (1). The intervention will address indicators that are not implemented at the family level. Therefore, it is crucial to get to know the level of healthy family indexes based on the achievement of 12 healthy family indicators.

An initial study conducted by Lahdji in Penggaron Lor, Semarang central Java-Indonesia aimed to find out the coverage of 12 healthy indicators found that there are three lowest indicator problems; Hypertensin patients who did not take regular medicine (22%), no family members smoke, and family who joined family planning program accounted for 39% and 37% respectively (2). Rojali et.al (2018) also carried out a study to find out the healthy family indexes of the family in Cluwak central Java. The study found that the majority of families (65%) were categorized as pre-healthy family. Even though several similar studies in different parts of Indonesia had been conducted, It is very important to find out the healthy family indicators in the East Nusa Tenggara, which is still categorized as a poor and underdeveloped province (1).

Healthy Indonesia Program with a family approach is one of the ways for public health centers to increase the target range of services and an effort to bring close health services (2). Access to comprehensive and quality health care services is pivotal to improve and maintain health, prevent and manage the disease, and achieve health equality for all Indonesians. The Program is focused on activities to promote the health of the family and to prevent diseases and disability. A family is categorized as a healthy family if the family follows 12 healthy family indicators. The indicators are family participation in family program planning, women give birth at health facilities, Child should get complete basic

immunization, exclusive breastfeeding for child age 0-6 months, regular growth monitoring for children under five years old. For Communicable and non-communicable diseases consisting of three main indicators namely TB patients get medication as standard, Hypertension patients should take oral hypertension drugs every day, and severe mental disorders must be treated and not abandoned. Other indicators for healthy behavior and environmental health are home free smoking areas (no smoker at home), all family members have access to clean water, and healthy latrines, and all family members (2). The objective of the study was to determine the healthy family index of the family and to identify the 12 healthy indicators coverage in East Nusa Tenggara Provinces.

2. METHODS

The study was an observational descriptive study. The Census method was used to collect the data from all families in Nulle Village in 2019. Ethical approval was obtained from the Ethics Committee of The Health Polytechnic of Kupang, Indonesia (LB.02.03/I/0071/2019). The total observed family was 777. Data was collected by using a healthy family form. The assessment form is prepared by the Indonesian Ministry of Health which assesses whether the family follows the 12 healthy family indicators or not. The questionnaire has been tested in several provinces in Indonesia. Data analysis was performed using three categories; yes, if the family acts according to the indicators and will be valued 1. No for the opposite indicators and will be valued 0 and N for Not applicable (cannot be used to calculate the healthy Family Index). To obtain the healthy family index, it will use the formula;

$$\text{Healthy Family Index} = \frac{\text{Number of Indicators which is valued by 1}}{12 - \text{the number of Not applicable indicators}}$$

The result will be categorized into three namely 1) more than 0,80 for Healthy Family; 0,50-0,80 for Pre-healthy Family and less than 0,5 for Unhealthy family. While measuring the 12 indicators coverage, it will use the formula;

$$\text{Indicators Coverage} = \frac{\text{Number of families who valued 1 for the indicators}}{\text{Total number of family} - \text{number of family valued N}} \text{ X } 100.$$

3. RESULTS

The area of Nulle Village is 23,1 km^2 with a population of 3058 residents; consisting of 1491 (48,75%) males and 1567 (51,25%) females. There are 777 families and all families participated in the study. Table 1 showed that 439; 56,49% of families were categorized as pre healthy families, 218; 28,05% were healthy family and unhealthy families accounted for 15,44%.

Tabel 1 The level of healthy family in Nulle Village- East Nusa Tenggara

Healthy Family Index	Frequency	Percentage
Healthy Family	218	28,05%
Pre-Healthy Family	439	56,49%
Unhealthy Family	120	15,44%
Total	777	100%

Table 2 shows that there were four lowest healthy family indicators. The finding showed that it was only 19,84% of the Hypertension patients who took regular medicine, 20% severe mental disorders patients who got treatment in the mental care unit, couples of childbearing age who participated in family planning program were only 30,58% and household without smokers were about 55,79%. On the other hand, there were three highest healthy family indicators, access to clean water (86%), healthy latrines (85%), and babies who received complete basic immunization (83%).

Tabel 2 The Coverage of 12 Healthy family Indicators in Nulle Village- East Nusa Tenggara

No	12 Indicators of Healthy Family	Percentage
1	The family have access to clean water	86,1%
2	Family Have access to healthy latrines	85,07%
3	Babbies receive complete basic immunization	83,05%
4	All family members have Healthy Indonesian Card (KIS)/ National Health Insurance	71,88%
5	TB Patient get medication as standard	66,67%
6	Pregnant women give birth at health facilities	65,41 %
7	Regular growth monitoring for children age 1-59 months	63,55%
8	Exclusive breastfeeding for infants the age of 0-6 Month	61,26%
9	No smokers in the family members	55,79%
10	Participation in the Family Planning Program (couples of childbearing age)	30,58 %
11	Severe mental disorder patient get treatment properly	20%
12	Hypertension patient take regular medication	19,84%

The study found that 439; 56,49% of families were categorized as pre healthy families, 218; 28,05% were healthy family and unhealthy families accounted for 15,44%. These categories are based on the achievement of 12 healthy family indicators. This review exposes the achievement of 12 healthy family indicators in East Nusa Tenggara.

4. DISCUSSION

Undoubtedly, the majority of hypertensive patients may feel better without any symptoms for a long time until there are underlying complications. In the absence of symptoms, the patient finds it difficult to accept treatment. The study found that 252 people suffered from hypertension. Of the patients, merely 50 people (19, 84%) took regular medicine once a day. Antihypertensive drug therapy is the primary intervention to control blood pressure. To achieve the targeted blood pressure, medication adherence is the most important measure. Hypertensive Patients with low levels of adherence are at risk for uncontrolled blood pressure and it will increase the incidence of complications (3). In previous research, it was found that hypertension patients at the age of more than 61 years have a better level of medication adherence. Conversely, newly diagnosed patients showed a lack of stability and awareness in taking medications (4). Medication adherence tended to be higher in patients who have been suffered for more than 10 years. Another qualitative study conducted in South Africa found that adherence to medication and lifestyle changes were determined by a lack of information, lack of awareness, financial problems, and side effects of medication (Dube, 2017). While the study to assess contexts of adherence with hypertension care among Hmong Americans found that over 50% of them reported nonadherence with hypertension care. Respondents who were 50 years of age or older, had no physical illness, did not know that hypertension was preventable (4). Therefore, patients are highly encouraged to be informed about the importance of taking regular medicine (5). Family support had a positive correlation to improve self-management regulation of hypertension (6).

Regarding the healthy family indicators for severe mental disorder patients get proper treatment, this study found that there were 5 severe mental disorders patients in the village. Of the patients, 3 patients (60%) were not treated. It is accepted worldwide that mental health management is insufficient particularly in low and middle-income countries (7). The pharmacological approach is a key intervention for severe mental disorders. However, many patients face big challenges in getting medication. The majority of severe mental disorders patients in Indonesia remain untreated. One of the main challenges is the supply of appropriate, safe, and affordable medicines (8).In East Nusa Tenggara, most public health centers are not equipped with enough resources including a continuous supply of essential psychotropic medications that influence the quality of mental health services. Moreover, lack of family support leads to a high incidence of severe mental disorders.

Concerning the family planning program, the study indicated that only 30,58 % of couples of childbearing age participated in the family program planning, while the other 69,4% of them did not join the program. Family intention to access family planning program is strongly supported by a positive attitude concerning family planning programs. A previous study revealed that the reasons for not using any kind of family planning devices were; not getting the husband's consent (38%); accepting that the family planning method is against religious/personal belief (32.5%); it causes abnormal bleeding (14.1%); assuming that it can cause sterility (7.3%); believing that it induces cancer (4.7%), and undoubting that it relates to pelvic pain (3.4%) (9). Educational intervention as one of the strategies that should be carried out during the home visit can improve a positive attitude. In terms of having the approval of the husband, it is a crucial need to involve their husband in counseling or educational intervention. The family intervention improved knowledge of the form of family planning(10).

In terms of smoking, young people and children tend to adopt and imitate parents' behavior. A study of home smoking bans found that children tended to smoke when parents smoked (11). This study revealed that 1353 (44%) people are smoking and 1706 (55, 78%) people do not smoke. Regarding smoking cessation, family and social support play a crucial role in making a quit effort. Healthy Indonesia Program with a family approach aims to develop an understanding of the family of smoking cessation (11).

Regarding pregnant women who must give birth at health facilities; the Provincial Government of East Nusa Tenggara launched the Mother and Child Health (MCH) Revolution Movement through Governor Regulation No. 42 in 2009 which aimed to decline the maternal mortality rate. However, the study showed that 87 families (65,4%) who have children at the age of 0-12 months (out of 133 families) gave birth at facilities, and 46 families (34,6%) were still managed at home by traditional birth attendance. Conversely, a study conducted in Nepal found that the majority of families preferred to deliver their new baby born at home (90%), the remainder of about 10% gave birth at health facilities. The study revealed that level of education, level of family income determined the family preference to choose a place for birth (12). Low-level income families preferred to be helped by traditional birth attendance due to a lack of funding resources for all expenses (13).

Immunization is a public health intervention to prevent children from vaccine-preventable diseases. According to Indonesia Basic Health Research, the number of immunized children decreased from 59, 2% in 2013 to 57, 9% in 2018. This study found that the majority of children aged 12-23 months (83, 05%) got complete basic immunization. However, 16, 95% of them were not immunized. According to Holipah, 2018 children's immunization status is strongly influenced when the delivery process is managed by a professional birth attendant. The study also revealed that mothers who have frequently visited health facilities got more information about immunization and child health. Children who have an older mother were more likely to get complete immunization due to their experience and knowledge regarding raising children. Furthermore, a mother's level of education has a strong correlation with family welfare (14). One of the important strategies for improving immunization coverage in Indonesia is to provide immunization services to the family.

Exclusive breastfeeding provides numerous benefits for the baby, the mother, and the family. The World Health Organization (WHO)/UNICEF recommends exclusive breastfeeding during the first 6 months of the infant's life and continued breastfeeding until the age of 2 years (15). Breast milk is a complete food that increases the nutritional and immune status. Exclusive breastfeeding contributes to reducing the risk of being obese. Despite the benefits, national rates of exclusive breastfeeding are still low. Indonesian Basic Health Research 2018 stated that the proportion of exclusive breastfeeding accounted for only 35%. The study conducted in Nule found that 68 children aged 7-23 months (61,8%) received exclusive breastfeeding, while 42 children (38,2%) were weaned before the age of 6 months. Various research has demonstrated that many underlying factors impede the success of exclusive breastfeeding including lack of knowledge about the benefits of breast milk, wrong perception about the quality of breast milk, and low maternal breastfeeding confidence (15).

Integrated Health Services Posts which are managed by health volunteers and spread out in all villages have the main objective to conduct the growth monitoring by conducting the weighing, nutrition counseling for risk group children, and a home visit. If these activities are well performed, malnutrition can be early detected, hence it can be treated properly. The study found that 190 under-five children years old (83%) were weighed every month

in integrated health services posts. The vast majority of children's nutrition status is well monitored at Posyandu. Initial research found that mothers who are satisfied with Integrated health Post services have a positive perception, and have good intention for taking their children to conduct monthly growth monitoring (16). Moreover, the number of babies in the family also influenced the purposes of mothers to take them for monthly growth monitoring. Families who have less than 2 children under five years old will be more active to attend the posyandu as scheduled. The distance to reach the posyandu is also another reason for attending the posyandu (16).

Regarding the healthy Indicators for communicable diseases services, Tuberculosis patients must get TB treatment as standard at least 6 months to kill all the TB bacteria. The study found that there were 24 TB patients in the village; in which 16 patients (67%) who take medicine regularly and 8 patients (33%) did not continue taking medicines. Previous research conducted in several hospitals both in the rural and urban districts found the main reason for nonadherence to treatment was feeling better after a few weeks. There are some causes of TB drug treatment failure including lack of knowledge, lack of commitment, lack of money for transportation, and social barriers such as lack of family support (17). Social support was considered very important to increase the level of medication adherence (18).

The main purpose of Indonesia’s national health insurance scheme is to ensure all citizens can access high-quality care without facing financial difficulties. This study conducted in Nulle Village found that the majority of people in the village have utilized the National Health Insurance/JKN Scheme. It accounted for around 71,77% (2195 citizens) who have become members of JKN, while 863 people (28%) remained uninsured. A previous study conducted by Kurniawati (2018) revealed that there were 56,86% of families where all family members had JKN cards, while 43,16% of families still had one or two members who uninsured due to a lack of knowledge and awareness of the benefits of JKN (19). Moreover, based on the study, factors that make people hesitate to become a member of JKN are they are still feeling healthy, lack of knowledge regarding the benefits and the scheme of JKN, and lack of awareness about the importance of having Insurance.

Access to clean water and sanitation in several areas still becomes a challenge in several areas in Indonesia. In Nulle, a village in the Soe district, according to the study, most of

the families can access clean water and good sanitation. It can be accessed by 669 families (86,1%), while 109 families (13,9%) are still struggling to even get access to clean water and good sanitation since the climate is hot and dry and the terrain mountainous, making infrastructure development doubly difficult. One of the ultimate goals of the Healthy Indonesian Program is to protect children from infection and diseases by improving hygiene and sanitation practices in their families and communities (2).

Referring to Healthy Indonesia Program Goals, the Indonesian government is determined to achieve 100% access to drinking water and sanitation by all families. Proper sanitation means that all families have an access to a latrine with gooseneck toilets and septic tanks or SPAL (Wastewater treatment system). The study showed that 85,07% (661 families) have access to a healthy latrine, while 116 families (14,9%) still use cemplung or pit latrine. Cemplung identified in the villages consists of a hole dug into the ground and covered with the floor made of branches of palm trees. The availability of healthy latrine in houses can be associated with the location of the water source. It is found that villagers living close to wells or other water sources are more likely to have gooseneck latrine. On the other hand, villagers who are far from the source are more likely to have cemplung as the latrine (20).

5. CONCLUSIONS

This study aimed to find out the healthy family category and to determine the coverage of 12 healthy family indicators. The study found there was four lowest healthy family coverage including Hypertension patients who took regular medicine, severe mental disorder patients who were treated, the number of families who are not smoking, and exclusive breastfeeding. Based on these achievements, it was analyzed and the study found that the majority of families are categorized as pre healthy family and an unhealthy family. It accounted for around 56,49% and 15,44% respectively. While it is only 28,05% who are determined as a healthy family. The healthy Indonesia Program goal is that all families are categorized as a healthy family. Future studies should be focused on the effectiveness of the healthy Indonesian program to improve the achievement of 12 healthy family indicators.

6. ACKNOWLEDGMENT

The authors thank all enumerators for all willingness to collect the data. The authors also thank all nurses and health workers in Nule Community Health Centres for their support and guidance.

7. REFERENCES

1. Darmawan W, Gunawan AT. Survey on The Implementation of Indonesian Healthy Family Program in Cluwak District, Pati Regency, Central Java Province. 2018;2348–52.
2. Lahdji A. Qanun qanun medika medika. 2019;4(1):151–6.
3. Boratas S, Kilic HF. Evaluation of medication adherence in hypertensive patients and influential factors. Pakistan J Med Sci. 2018;34(4):959–63.
4. Nikhitha K, Sai Kiran S, Prasad M CEM. INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES. 2020;11(3):2922–7.
5. Dube L, Rendall-Mkosi K, Van den Broucke S, Bergh AM MN. J Community Health Nurs. Self-Management Support Needs Patients with Chronic Dis a South African Townsh A Qual Study [Internet]. 2017;34(1):21–31. Available from: https://pubmed.ncbi.nlm.nih.gov/28156143/
6. Fikriana R, Nursalam, Devy SR, Ahsan, Sasono TN, Qodriyah L. Factor analysis of a patient with hypertension on self-regulation based on self-belief. J Glob Pharma Technol. 2019;11(8):173–82.
7. Kay T. Roberts, Karen M Robinson, Robert Topp, Jamie Newman, Felicia Smith CS. Community Perceptions of Mental Health Needs in an Underserved Minority Neighborhood. J Community Health Nurs [Internet]. 2008;25(4):203–17. Available from: https://www.tandfonline.com/doi/abs/10.1080/07370010802421202
8. Iseselo MK, Ambikile JS. Medication challenges for patients with severe mental illness: Experience and views of patients, caregivers, and mental health care workers in Dar es Salaam, Tanzania. Int J Ment Health Syst. 2017;11(1):1–12.
9. Sahin HA SH. Reasons for not using family planning methods in Eastern Turkey. Eur J Contracept Reprod Heal Care. 8(1):11–6.
10. T. K. Family planning experiences of Vietnamese women. J Community Heal Nurs. 1997;14(3):155–68.
11. Hubbard G, Gorely T, Ozakinci G, Polson R, Forbat L. A systematic review and narrative summary of family-based smoking cessation interventions to help adults quit smoking. BMC Fam Pract [Internet]. 2016;17(1). Available from: http://dx.doi.org/10.1186/s12875-016-0457-4
12. Kumbani L, Bjune G, Chirwa E, Malata A, Odland JØ. Why some women fail to give birth at health facilities: A qualitative study of women's perceptions of perinatal care from rural Southern Malawi. Reprod Health. 2013;10(1):1–12.
13. Sreeramareddy CT, Joshi HS, Sreekumaran B V., Giri S, Chuni N. Home delivery and

newborn care practices among urban women in western Nepal: A questionnaire survey. BMC Pregnancy Childbirth. 2006;6:1–10.

14. Holipah, Maharani A, Kuroda Y. Determinants of immunization status among 12- to 23-month-old children in Indonesia (2008-2013): A multilevel analysis. BMC Public Health. 2018;18(1):1–11.
15. Afiyanti Y, Juliastuti D. Exclusive breastfeeding practice in Indonesia. Br J Midwifery. 2012;20(7):484–91.
16. Nazri C, Yamazaki C, Kameo S, Herawati DMD, Sekarwana N, Raksanagara A, et al. Factors influencing mother's participation in Posyandu for improving the nutritional status of children under-five in Aceh Utara district, Aceh province, Indonesia. BMC Public Health [Internet]. 2016;16(1):1–9. Available from: http://dx.doi.org/10.1186/s12889-016-2732-7
17. Lutge EE, Wiysonge CS, Knight SE, Sinclair D, Volmink J. Incentives and enablers to improving adherence in tuberculosis. Cochrane Database Syst Rev. 2015;2015(9).
18. Widjanarko B, Gompelman M, Dijkers M, van der Werf MJ. Factors that influence treatment adherence of tuberculosis patients living in Java, Indonesia. Patient Prefer Adherence. 2009;3:231–8.
19. Kurniawati W, Rachmayanti RD. Identifikasi Penyebab Rendahnya Kepesertaan JKN pada Pekerja Sektor Informal di Kawasan Pedesaan. J Adm Kesehat Indones. 2018;6(1):33.
20. Prasetyoputra P, Irianti S. Access to Improved Sanitation Facilities in Indonesia: An Econometric Analysis of Geographical and Socioeconomic Disparities. J Appl Sci Environ Sanit. 2013;8(3):215–24.