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# Effects of Food Insecurity on Health Conditions among Women and Children of Orang Asli Kintak in Pengkalan Hulu, Perak, Malaysia

Nor Haidanadia Hasni[1], Sharina Abdul Halim[2], Sarah Aziz[3]

**Abstract**

*Growing evidences have shown high overlap between food, well-being and forest conservation. Such circumstances are being faced by indigenous communities, in Peninsular Malaysia that are becoming more vulnerable due to health problems related to malnutrition. In this paper, we address effects of food insecurity and health conditions among Orang Kintak mothers and children in Pengkalan Hulu. A total of 35 mothers and 63 children were sampled using quantitative approach. Using (WHO) reference standards, main finding for BMI classification of women shows (20%) underweight, (60%) normal weight and (20%) obesity. Meanwhile, (86%) children were under weight and only (14%) are of normal weight. Understanding the health problems faced by Orang Kintak following unbalanced and nutritional diet are crucial in order for local authorities and communities to take critical action, such as to set up a basic food source production program in order to avoid over dependent on purchased food sources. Next, increase the productivity of human capital by encouraging involvement in the economic, education and health sectors. In general, policy-makers need to take into account indigenous knowledge, challenges and beliefs system when making a strategic decision so that it is beneficial and suitable for the planned strategy to be successful.*

**Keywords:** *Indigenous, Food Insecurity, Malnutrition, Health, Environmental Change.*

## Introduction

The issue of food insecurity is a worrisome issue, not to mention in a world that actually produces enough food for the entire world's population. But unfortunately, the problem of food insecurity still occurs due to various factors such as climate change, population growth, poverty, political instability, global health problems (WHO, 2020). In addition, the factors of wars, disease outbreaks, natural disasters, culture and technology all affect and affect food sources. In fact, it also affects the care, health environment and guarantee of food supply (Pendro Sanchez et al., 2005). The FAO, IFAD, UNICEF, WFP and WHO, (2020) report shows that in 2019, two billion people in the world do not have the ability to achieve the second goal (zero hunger) under the Sustainable Development Goals (SDG 2030) will not be achieved.

Malnutrition is more common in developing countries than in developed countries and children are the most vulnerable group to malnutrition. Malnutrition is the result of complex interactions such as infectious factors, inadequate nutrition, child care practices, sanitation and poor access to health care (Eric Tan et al., 2020). Malnourished children are often exposed to problems such as iron deficiency, underweight, stunting, iodine deficiency, vitamin A deficiency and are prone to infections (Eze et al., 2017; Phua, 2015). The Orang Asli infant mortality rate is much higher than the Malaysian population which is 51.7% compared to 8.9% per 1000 live births. Life expectancy also shows a difference which is 53 years for the Orang Asli, while 73 years for the Malaysian population (Rusaslina Idrus, 2011). Hunger, poverty and disease are related to each other, and even a person who does not get enough food is the main threat to his health.

Studies conducted in developed and developing countries show that low income increases the risk of food insecurity (Dharod et al., 2013; Ali Naser et al., 2014). Norhasmah et al., (2021) an important way to improve the security of community food supply is to increase access to food in the community. Food access is defined as access to quality, safe, affordable, nutritious and culturally acceptable food and providing healthy food options. People are considered at risk of food insecurity when they have limited access to economic, physical and social factors. In a study of Orang Asli in Malaysia, Phua, (2015) found socioeconomic factors,

[1] Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor.
[2] Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor. E-mail: sharinahalim@ukm.edu.my
[3] Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor.

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large family size, low education, illiteracy, food taboos, disease infections and, (Ajlaa Rasid et al., 2019) unhealthy eating practices and unsanitary environment, community health services and less accessible hospitals increase the risk of Orang Asli to food insecurity thus affecting health.

Food insecurity is a major threat to health and quality of life. This problem is the main constraint to a country's ability to develop economically, socially and politically. Individuals and households that experience food insecurity are at risk of consuming insufficient and unhealthy food that affects energy and nutrient intake, resulting in various negative effects such as an increase in the number of patients and death rates, limited neurological development and low productivity development (Norhasmah et al., 2021). Therefore, this study aims to determine the nutritional status and diseases experienced among Orang Asli. Research related to nutrition and health care in the community in Malaysia, this situation requires efforts to document their body composition and health in an effort to improve the quality of well-being of the Orang Asli.

## Method and Study Area

It consists of identifying the field work procedures, study area, the methods of data collection and processing.

*Field Work Procedures*

In order to carry out this study, the researcher has applied for permission in advance to the head office of the Department of Indigenous Development (JAKOA). After getting permission from the JAKOA head office, the researcher then informed the matter to the JAKOA Gerik branch office. After that, the researcher needs to apply for permission from the Perak State Health Department, to obtain health records and collaborate with the Pengkalan Hulu Health Clinic. Permission was obtained from the Perak State Health Department after a presentation related to the study was made by the researcher. In addition to obtaining permission from JAKOA, permission from Tok Batin is also important to enable researchers to stay and conduct research in Kg. Asu Hill. This is important to get cooperation from the relevant body while in the field and avoid unwanted things from happening. In addition, the questionnaire that has been developed has gone through the verification process of experts such as health experts, nutritionists and Orang Asli researchers.

*Study Area*

Kg. Bukit Asu is the only settlement of Orang Kintak in Malaysia, and has a small population of 208 residents with 49 families (JAKOA, 2010). Based on interviews with JAKOA officials (2017), it was found that the Kintak population showed little growth in community members and this is worrying because there is only one tribe in Malaysia and it is the smallest tribe in the Negrito group. Their increasingly threatened population, low income rates and environmental areas that have undergone many changes caused this community to be selected as a study sample.

Based on RMK 12 which focuses on the goal of eradicating extreme poverty and bridging the income gap through the Strategic Plan of the Orang Asli Development Department 2016-2020 which is efforts to increase the income of orang asli through sustainable economic activities has been implemented in Kg. Bukit Asu, which is a Commercial Rubber Replanting Project consisting of 45 heads of households involving 130 hectares of cultivated area. However, the impact of this project caused the forest that used to provide many natural food sources, but is now experiencing more and more destruction and lack of food sources due to macro land use changes that have caused a deterioration in the quality of the physical environment to the point of disrupting the flow of the food web and threatening the lives of the Orang Kintak. Many studies from other researchers (Mustaffa Omar et al., 2011; Nor Haidanadia et al., 2016; Lee Hou Zei et al., 2018; Zaimah, 2020) found that economic development will help transform the economy of the Orang Asli community. But indirectly it damages the forest resources that have been their dependence.

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*Subjects*

Study respondents were selected from Kintak households from the Negrito tribe (N=42). The health quality experience of the Orang Kintak involved as many people (n=180) as the entire Kintak community. While for anthropometric measurements, it involved women/mothers (n=35) and Kintak children (n=63) up to the age of 12. The Orang Kintak practice a culture of early marriage and many of the Kintak teenagers who are 17 years old are married, causing the study sample for children to be taken up to the age of 12 only. For women they are more aware of the health condition of the household and are responsible for the intake and preparation of food for the household and during this stage children depend on the mother for food, and their food pattern resembles that of the household.

*Anthropometric Measurements*

This study has collaborated with Pengkalan Hulu Health Clinic to obtain information on health records and anthropometric measurements of Orang Kintak. Anthropometric measurements were done together with the help of five nurses from Pengkalan Hulu Health Clinic (Picture 1). There is a complex relationship between nutrition and health and weight. Anthropometric methods represent an important component in assessing nutritional status and are also used as indicators of living standards. A good nutritional status will improve the level of health, while individuals with a low BMI are often associated with impaired physiological functions that can affect health and work ability. WHO (2015) states that BMI has been used as an indicator of disease risk, i.e. as a person's BMI reading increases, the risk of getting some diseases such as early death, heart disease, high blood pressure, cancer and diabetes also increases. The following are the measurement methods performed:

i. Explain the purpose of measuring body weight and height.

ii. Ensure that mothers and children do not wear thick clothes/pampers that can increase the weight measurement reading.

iii. Place the weighing and measuring device in a flat place and make sure that the reading of the device shows the number 0.0 before starting.

iv. When the scale shows the number 0.0, the respondent is asked to stand straight and eyes/head straight ahead in the middle of the scale.

v. The reading of the respondent's body weight is displayed on the (LCD) and the researcher notes the weighing results quickly.

vi. The researcher obtains the reading of the respondent's height measurement starting from head to toe.

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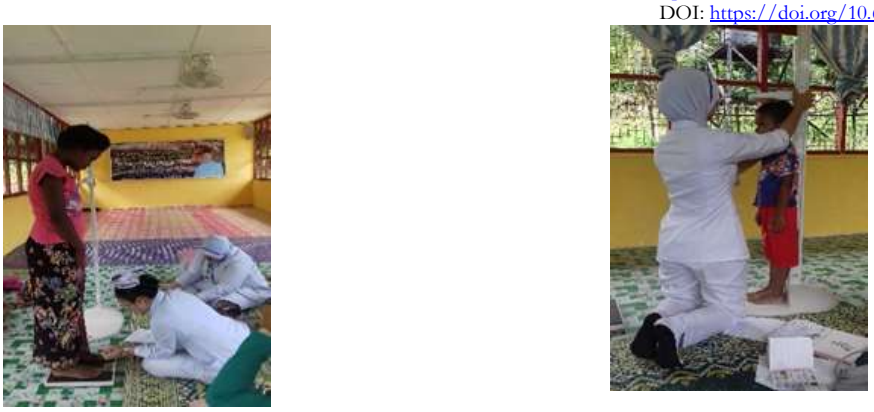

**Picture 1.** Anthropometric measurements for Kintak women and children

Although BMI is calculated using the same method for children and adults, the criteria used to interpret BMI values for children differ because it takes into account their growth and development. For the classification of BMI status for children, the Z-Score Table was used. This is because children have a ratio between body weight and height that differs according to gender and age. This score was further used to classify children as normal, stunted; underweight, normal and overweight, respectively.

## Results and Discussion

*Demographic Characteristics*

From the aspects of religion and belief presented in Table 1, it shows that the majority of respondents are Muslim (53%) and (47%) still practice ancestral beliefs. The level of education shows that 43% have never attended school. From the perspective of the main type of work, 57.1% are involved in agriculture. Agriculture that is done includes tapping rubber and growing vegetables and fruits.

Based on Poverty Line Income (2022) the socioeconomic status shows that 95.2% of Kintak households are at the extreme poverty level and only two 4.8% households have a good monthly income and above the poverty line. This means that Orang Kintak lack financial resources to meet basic needs. This high income gap shows that Orang Kintak are still far behind mainstream society. It is more worrying now that the natural life around them has suffered a lot of destruction and exploration, thus reducing and making it difficult to obtain natural resources as a source of food, medicine and income. The inability to get food either for a long period of time or at a certain time, is closely related to the income of the individual or the household. Sufficient income is a factor in the ability to buy food even at high prices. The economic urgency has affected the guarantee of food supply for the low-income group, especially in terms of providing nutritious food for households. Nutritious foods such as meat and fresh vegetables are expensive foods for that group due to the price of food items being beyond their means (Nurul Izzati et al., 2022). The high cost of nutritious food causes households with financial constraints to choose and rely on low-quality, cheap and easy-to-get food, resulting in a low quality diet that can affect the growth and health of the body (Norhasmah et al., 2021).

**Table 1. Socio-demographic characteristics**

| Characteristics | N (42) | % |
|---|---|---|
| **Religion** | | |
| Traditions/Ancestors | 20 | 47.0 |

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| | | |
|---|---|---|
| Islam | 22 | 53.0 |
| **Marriage status** | | |
| Single | 1 | 2.4 |
| Get married | 34 | 81.0 |
| Widow | 7 | 16.6 |
| **Education qualification of parents** | | |
| No schooling | 18 | 43.0 |
| Primary school | 24 | 57.0 |
| **Main Job Types** | | |
| Agriculture | 24 | 57.1 |
| Looking for forest produce | 3 | 7.1 |
| Services | 2 | 4.8 |
| Not working | 1 | 2.4 |
| Housewife | 12 | 28.6 |
| **Total Household income (RM)** | | |
| 0-1197 (hard poor) | 40 | 95.2 |
| 1198 and up | 2 | 4.8 |

### Experience the quality of health of Orang Kintak

The experience of the health quality of Orang Kintak in the last one to two years is shown in (Figure 1). According to (FAO, 2013; KKM, 2013; Short Form 36 Health Survey (SF-36) there are seven indicators of health quality that refer to i) the occurrence of perinatal deaths and babies with (3.9%) that is seven Kintak women have experienced miscarriage ii) maternal death during childbirth 1.1% iii) death among Kintak children 4.4% iv) death of adults in the household 4.4% v) disability physical and mental or (disabled) i.e. a child suffering from hearing problems (deaf) 0.6% vi) facing health problems due to insufficient food 69.4% and vii) households often see a doctor for treatment in the last two months 88.3%.

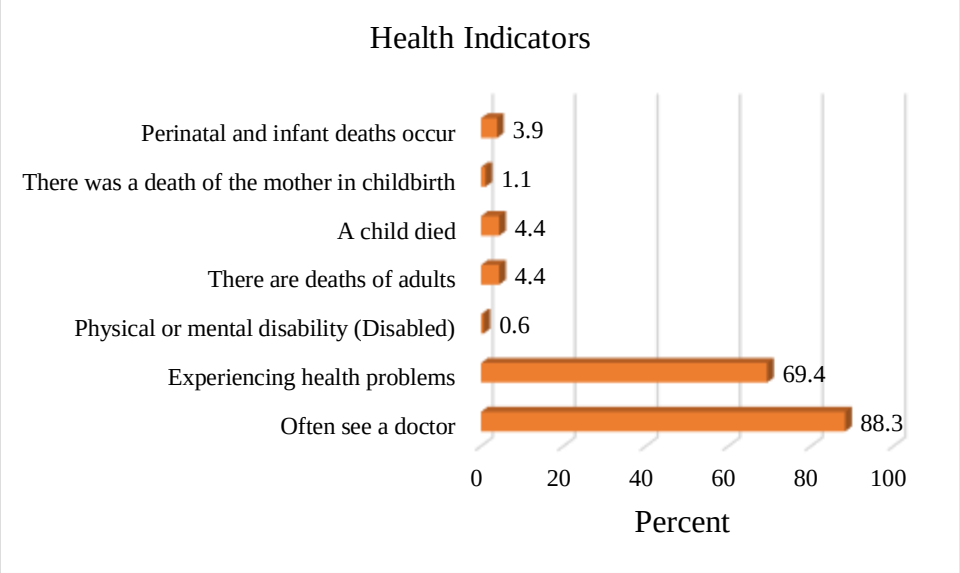


**Figure 1.** Health quality experience of Orang Kintak (n=180)

Findings show that there are only a few cases of perinatal and infant deaths, maternal deaths, child deaths and the birth of disabled children among the Orang Kintak. This clearly proves that the control and

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prevention measures carried out by the government, (KKM) and (JAKOA) have been successful in reducing the problem of infant and maternal deaths, especially among the Orang Asli. This is because expectant mothers have received treatment starting from the early stages of pregnancy until birth which reduces the risk of miscarriage, abnormal birth and infant death during the birth process. As a result of an interview with some Kintak women, they themselves praised the efforts of JAKOA and the health clinic in ensuring that mothers and babies are in a healthy state. For example, treatment for expectant mothers is provided every month in Kg. Bukit Asu through Pengkalan Hulu Mobile Clinic, help with food baskets, help with milk and medicine for expectant mothers. In addition, food aid is also given to children who are underweight and pregnant mothers will be sent by JAKOA to the transit center in Gerik if they face problems in pregnancy or want to give birth. The assistance provided is aimed at providing health services directly to the Orang Asli settlements in order to improve the quality of Orang Asli health standards. The following is the result of an interview with some Kintak women.

*"The doctor came to see near the village. Who is sick went there (while pointing to community hall). Got medicine for fever, stomach ache, body ache...."*

(Female 42 years old)

*"A doctor with a good mission, he comes to the village every month to see the sick, to give medicine.., to see pregnant people, he doesn't have to go to town, if he's really sick, he just goes... feverish children for the mission to see."*

(Female 38 years old)

*"Yes, just after giving birth...a boy...that day there was no reason to go to transit, give birth there, JAKOA took you in the van.. If there is a problem going to transit, sit there....husband can come along.*

(Female, 24 years old)

*Anthropometry measurements for Kintak women's*

BMI classification shows that 20% are underweight, 60% have a normal weight and 20% are overweight. Kintak women's anthropometric measurements for mean height and weight are 151.11 cm and 50.15 kg respectively. While the average BMI of Kintak women is 21.90 kg/m2, is in the normal weight range. Although, there is a problem of lack of food but almost half of Kintak women have a normal body weight because they still consume food from carbohydrate sources such as rice, yams, vegetables and ulaman in their daily diet.

**Table 2. Classification (BMI) of Kintak Women**

| **Item** | **Mean** | **Mode** | **Minimum** | **Maximum** |
|---|---|---|---|---|
| Height (cm) | 151.11 | 150.00 | 138.00 | 1618.00 |
| Weight (KG) | 50.11 | 46.50 | 36.60 | 78.60 |
| BMI | 21.90 | 20.61 | 12.41 | 37.43 |
| **Classification (BMI)** | | **N** | | **(%)** |
| Underweight (<18.50) | | 7 | | 20.0 |
| Normal weight (18.50-24.99) | | 21 | | 60.0 |
| Overweight (25.00-39.99) | | 7 | | 20.0 |
| Total | | 35 | | 100.0 |

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Table 2 shows a total of seven Kintak women classified as underweight, four underweight (mild), two underweight (moderate) and one underweight (severe) with a weight of 36.60 kg, with a Pearson Correlation value: 0.692. The problem of being underweight occurs due to factors i) financial problems causing a lack of food supply, especially nutritious and sufficient food for the whole family. This group is at high risk of underweight and lack of nutrition because they often give portions of food to small children who need food more ii) genetic factors and the descent of Orang Kintak who have a small and low body and iii) increasing age also causes a decrease weight especially for the elderly due to lack of appetite as they age. The lack of money and natural food resources that are decreasing and difficult to obtain have limited the availability of various types of nutrition, especially sources of protein, iron, fat, vitamins, calcium and minerals that can affect health.

In addition, despite the lack of food, the problem of overweight still occurs among Kintak women, as many as seven people are overweight with a maximum weight of 78.60 kg. The problem of being overweight is not caused by an excess of substances or eating too much to cause obesity, but rather an unbalanced diet that is eating too much from carbohydrate sources such as rice, yams and yams. Looking at the food pyramid, rice and yams are on the first level which contain high sources of carbohydrates and starch causing unhealthy fat accumulation if taken regularly and excessively. Other studies also explain that weight gain occurs because they eat as much food as they can when there is food due to the uncertainty of food. Low-income groups are found to be more at risk of obesity and chronic diseases such as high blood pressure, heart disease and diabetes due to the consumption of cheaper and processed foods that are high in fat, salt and sugar (Saleh Hudin et al., 2017; Stephanie et al., 2018). This is one of the strategies that is done by cooking and eating whatever food is available at home such as cooking fried rice with oil, soy sauce, salted fish and anchovies (Ihab et al., 2012).

**Table 3. Kintak women's health problems**

| Disease | N | (%) |
|---|---|---|
| **Symptoms of illness/mild illness** | | |
| Affected body system | 34 | 97 |
| Quickly sleepy and tired (body feels weak) | 28 | 80 |
| Dental problems | 13 | 37 |
| Night vision problem | 5 | 14 |
| Stomachache | 24 | 69 |
| Frequent headaches | 28 | 80 |
| Fever and flu | 21 | 60 |
| **Critical illness** | | |
| Heart | 0 | 0 |
| High blood pressure | 14 | 40 |
| Diabetes | 2 | 6 |
| Anemia | 5 | 14 |

The problem of underweight can cause various complications such as malnutrition due to the lack of sufficient food intake to guarantee the growth and effectiveness of the body's functions, while the problem of excess body weight causes the occurrence of obesity which invites various types of dangerous diseases. The results of the study show health problems for Kintak women with critical illnesses, namely 40% have high blood pressure, 6% have diabetes and 14% have anemia due to lack of iron intake, especially during pregnancy. Lack of food and nutrient diversity causes the body's defense system to weaken and increases the risk of getting disease. Kintakt women who are too thin and those who lack nutrition become lifeless and lack energy so that reducing productivity and concentration will be affected and invite symptoms of illness or mild illness such as (Table 3). Wan Afizi et al., (2015) Orang Asli women have high levels of folate and iron deficiency. The lack of availability and accessibility to healthy and sufficient food, unbalanced

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dietary practices and the occurrence of food supply instability lead to a limited food crisis for the Indigenous people that affects their health level (Nor Haidanadia et al., 2016).

*Anthropometric Measurements for Kintak Children*

Food insecurity among Orang Kintak is seen to have a negative and worrying effect on the health and growth of Kintak children, as many as 86% of Kintak children suffer from underweight and only 14% have a normal weight. There is a strong relationship between the level of food security and BMI classification of Kintak children with a Pearson Correlation value of 0.645. This shows that almost all Kintak children face problems in their physical growth and development. The majority of Indigenous children do not follow normal growth patterns as shown in the WHO growth charts, compared to children in the United States, Ghana and Norway (Onis et al., 2007).

Anthropometric measurements of the average child's height is 111.50 cm and the average weight is 20.36 kg. The average height of girls is higher than boys which is 114.32 cm for girls and 108 cm for boys may be due to more girls (n = 34) and boys (n = 29) participating in this research. Kintakt boy height mode is 68 cm with minimum height is 67 cm and maximum height is 154 cm. While the height mode for Kintak girls is 112 cm with a minimum height of 67 cm and a maximum height of 154 cm. While the mean BMI of Kintak children is 15.4 kg/m2, falling in the underweight range. There were no significant differences in body weight, BMI and body fat between boys and girls. However, there is a difference between the height of Kintak boys and girls. In Malaysia, many studies have been conducted showing the problems of underweight and stunting experienced by Orang Asli children (Aini et al., 2007; Saibul et al., (2009); Ahmed et al., (2012). Children who are underweight and stunted usually lack nutrients such as calories and protein, they also suffer from a lack of micronutrients, especially iron, calcium, zinc and vitamin A which are important for the body, bones and the development of the mind normal and healthy.

**Table 4. Classification (BMI) of Kintak children**

| **Item** | **Male (n=29)** | **Female (n=34)** |
|---|---|---|
| Height | Mean (108.069 cm)<br>Mode (68cm) | Mean (114.32 cm)<br>Mode (112cm) |
| Weight | Mean (18.95 kg)<br>Mode (8.50 kg) | Mean (21.56 kg)<br>Mode (10.70 kg) |
| Height of Kintak children | Mean (111.50 cm)<br>Mode (68cm)<br>Mode (68cm)<br>Minimum height (67cm) | |
| Weight of Kintak child | Mean (20.36 kg)<br>Mode (8.90kg)<br>Minimum weight (7.90kg)<br>Maximum weight (50 kg) | |
| **Classification (BMI)** | **N** | **(%)** |
| Lack of weight | 54 | 86 |
| Normal body weight (ideal) | 9 | 14 |
| Overweight (obesity) | 0 | 0 |
| Total | 63 | 100 |

**Table 5. Kintak children's health problems**

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| Disease | N | (%) |
|---|---|---|
| **Critical illness** | | |
| Anemia | 4 | 6 |
| **Symptoms of illness/mild illness** | | |
| Fever and flu | 59 | 93 |
| Stomach ache | 55 | 87 |
| Skin problems | 33 | 52 |
| Body feels weak (quickly sleepy and tired) | 15 | 24 |
| Dental problems | 9 | 14 |
| Frequent headaches | 8 | 12 |
| **Mental health problems/self-efficacy** | | |
| Speech problems/ speech delay | 6 | 10 |
| IQ thinking problem/learning problem | 12 | 19 |

As for the symptoms of illness or mild pain faced by Kintak children, they often experience fever and cold (93%), stomach ache (87%) and skin problems (52%) which are shown in Table 5. Insufficient food causes lack of nutrition and hunger causing fever, stomach ache, dizziness and body feeling weak and tired quickly. The symptoms of this mild disease, if it occurs repeatedly, can affect the child's appetite, resulting in a reduction in food intake, which in turn leads to malnutrition. This condition will further weaken the immune system causing children to be susceptible to more severe, frequent and prolonged illnesses. The practice of drinking uncooked water also increases the risk of the disease. Skin disease problems occur as a result of lack of hygiene such as playing and walking without wearing slippers, often playing in dirt and sand, less frequent bathing and less hygienic sanitation practices and not practicing hand washing before eating also increase the risk of worm infection and getting diseases.

In addition, 6% of children suffer from anemia. In general, anemia in children is caused by insufficient intake of iron, folate and vitamin B-12 in the diet. Lack of iron causes fatigue, weak body, pale skin, lack of concentration and susceptibility to disease (Brown et al., 2002). Indigenous children have a higher risk of being underweight, stunted and suffering from anemia (Seng Kai Yee et al., 2021). The problem of lack of food also affects mental health and self-efficacy where 10% have speech problems or are slow to speak and 19% have poor learning problems. This minority group is still far behind and has a high dropout rate in education in all levels of education starting from preschool to higher education institutions (Lee Hou Zei et al., 2018). Good eating habits start from the beginning of every child's life. Physical and mental health need to be emphasized because they are interconnected. The lack of nutrients needed by children not only interferes with physical growth but also weakens their cognitive development. Therefore, it is the responsibility of Kintak's parents to provide balanced, varied and sufficient food options for the household.

The researcher also asked Kintak women questions about the definition of 'healthy' and 'unhealthy' for children. For Kintak women, in general, healthy children can do activities such as playing, making friends, eating and sleeping with good behavior, energetic and cheerful. While for children who are not healthy they do not show behavior and appearance as cheerful and energetic as usual. Unhealthy children usually experience cough, runny nose, body heat, often cry and are weak. While for physical characteristics, which are body weight and height, Kintak women have never mentioned it in terms of health. Kintak women agree that eating nutritious food can affect the health of the household. Rice, fruits, vegetables, chicken and fish are among the foods that are said to be important for children's health. While foods such as sugar, salt, instant noodles and crackers are also referred to as foods that are not good for health if taken excessively. The practice of drinking alcohol and smoking is also associated with adverse health effects.

Therefore, in order to improve the quality of life and well-being of the Orang Kintak as well as reduce the problem of food and health insecurity among the Orang Kintak, various efforts have been made by the

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responsible party such as a mobile clinic program that includes health check-ups, pregnancy and medication administration, worm infection control and adult women's health programs. The provision of food baskets and the Income Enhancement Program are also given. This shows that various efforts have been made to ensure the quality of life and health aspects of Orang Kintak in a better and sustainable direction in line with the Government Strategic Plan by the Ministry of Health Malaysia 2021-2025 to strengthen and streamline healthcare services. This effort is important to realize the generation of healthy human capital in the future.

This study found that low socioeconomic status, lack of food, unbalanced dietary practices and no guarantee of access to healthy and sufficient food cause health problems, underweight and stunting especially among Kintak children. The poverty factor is compounded by the increase in the price of goods and food, causing their purchasing power to decrease and be limited. This causes many households to not be able to provide a healthy, balanced, sufficient diet and provide a variety of food for children. In this context, the factors of poverty and low level of education also give rise to parents who lack awareness and formal knowledge related to raising healthy children.

### Recommendations

Taking note of the threat of food and health insecurity faced by the Orang Kintak, some things need to be paid attention to by the government, especially to protect the survival of this increasingly endangered Orang Asli minority tribe. The main problem of Orang Kintak is that the source of economic income is insufficient to cover the needs of the family. This situation is getting worse when the surrounding forest area has been destroyed and agricultural activities cannot be carried out due to the threat of wild animals that are increasingly entering the area around the village and damaging the crop area. Among the recommendations are;

i. Stakeholders need to intervene by ensuring that natural resources are restored and preserved so that the Orang Kintak can enjoy natural resources that provide them with economic needs, food, medicine, shelter and recreation that are close to their culture and themselves.

ii. Create your own food production program so as not to depend too much on purchased food sources. The Orang Kintak want to create an area that is suitable and protected from the threat of wildlife specifically for agricultural activities. This activity is done cooperatively and in groups. This method can save costs and allow the area to be controlled effectively. The use of electric fences can also prevent the entry of wildlife. Therefore, the control can be done effectively, the cost of using and maintaining the electric fence can be saved.

iii. Increase the productivity of human capital by encouraging Orang Asli to be involved in the economic sector. To encourage the participation of this minority community in the job market it can be achieved through specific training and skills programs so as to improve skills and knowledge to engage in various sectors such as automobiles, agriculture, sewing, cooking, entrepreneurship and manufacturing. This can indirectly improve their competitiveness in the field of more secure employment in the long term. Based on interviews, it was found that Kintak's youth are more interested in make-up and personal care, agriculture, entrepreneurship and manufacturing.

There are many factors that threaten the security of food supply, health, education and poverty among the Orang Kintak. However, the responsible parties have tried to improve the quality of life and well-being among them. Therefore, stakeholders, decision makers and evaluators need to take into account the knowledge, experience, challenges and beliefs of the Orang Asli when making a strategic decision, proposal or in implementing new policies and programs so that they are beneficial and compatible with the lives of the Orang Asli so that programs and strategic planned successfully.

## Conclusion

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The problem of food insecurity affects the Orang Kintak from the aspect of health and growth of children especially. Nutrition aims to provide energy for a healthy growth process. Therefore, it is important for parents to provide a balanced diet and complete nutritional intake to meet the needs of growing children. Uncertain nutrition and the intake of less nutrient sources affect the growth, health and brain development of children. Many Kintak children have a low BMI with underweight and stunted growth. In addition, adults are also increasingly exposed to the risk of critical diseases such as diabetes and high blood pressure that can endanger health and life. Knowledge, perceptions and beliefs that influence food selection also depend a lot on culture (dietary practices and taboos) as well as the availability and accessibility of healthy and sufficient food. However, what is more important is the effort to improve the availability of food to the Orang Kintak to guarantee food supply and better health. The overall findings of this study have indirectly contributed to implications for the development of research and knowledge. Implications for the development of knowledge focus on the development of theoretical aspects that discuss recommendations and steps that can be taken by various stakeholders in strengthening policies and strategies in an effort to improve the quality of life and develop the Orang Asli community along with other Malaysian communities. The awareness and involvement of the Orang Asli community to change is also very important to see the effectiveness of a strategy that has been carried out by the government. Therefore, all parties should be united and full of responsibility in an effort to develop the Orang Asli community and not just for the sake of profit.

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