

The Exploration of Health Disorder Children under Five in Papua in 2023

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ABSTRACT

The Yaro Health Center is a public health technical implementation unit located in Yaro District, Nabire Regency, Central Papua. The Yaro Health Centre carries out various basic health efforts, with various targets including children under-five. Children under-five are a vulnerable group and are at risk of various health problems so they need attention from various parties, including nurses. In 2020, it is estimated that 5 million children will die in the world due to the causes of Pneumonia, Diarrheal, Malaria, Fever, ARI, and malnutrition. In 2018, the prevalence of ARTI in children under-five in rural areas was 62.8%, Papua, 14.0% higher than the national 12.8%; Diarrheal, 12.9%, national 62.8% and national Malaria (1-4 years) 0.4%. In Papua in 2014; 2018; From 2020 to 2023, health problems were obtained for children under-five namely: acute respiratory infection, Malaria, tuberculosis, Asthma, Diarrheal, Abdominal pain, worms, Chickenpox skin disease, furuncle, measles, stomatitis, dental caries, Otitis Media Acute Media, Febrile, dengue, malnutrition consisting of overweight, very underweight, and underweight. The purpose of the study was to analyze health disorders among tchildren under- five who received treatment at the Yaro Health Centre, Nabire Regency. Exploratory quantitative descriptive research method with a retrospective approach. Number of samples of 406 media recordings of children under- five receiving treatment at the Yaro Health Centre, Nabire Regency, Central Papua in 2023. **To protect the human rights of participants from exploration, the researcher obtained ethical feasibility No. 079/KEP- J/V/2024, dated May 27, 2024.** The data was processed univariate using a computer with the SPSS program. The results of the research on health disorders of toddlers are Respiratory Tract Infections, Diarrheal, Malnutrition, Skin Disorders, Malaria, Measles dd Dengue, OMP, and Conjunctivitis. Conclusion: The main health problems of toddlers are infectious diseases, malnutrition and non-infectious diseases. Nursing problems are ineffective health management of toddlers, health behaviors tend to be risky, delayed growth and development, high risk of infectious disease transmission in toddlers. It is recommended to conduct risk factor intervention research to reduce the number of future cases of health disorders in children under-five.

Keywords: Toddlers; Health Disorders; Health Centre; Central Papua

Latar Belakang

In 2022, the government added 3 new provinces, one of which is Central Papua Province which was inaugurated by the Ministry of Home Affairs based on Law Number 15 of 2022. As a result of this decision, accurate health data is certainly needed for development planning, especially health in the future, especially Nabire Regency (Matalen, and Restika, in Kompas 2022). Older people are more likely to develop active infections from infectious diseases such as flu or pneumonia and generally have difficulty recovering from an infectious process that does not bother people due to a less effective immune system (Stanhope and Lancaster, 2018). Toddlers whose family members experience eating sickness are at risk and susceptible to contracting diseases. The results of the study showed that health disorders that are often experienced by toddlers in Papua include Jayapura, Asmat, and Paniai cities, namely: acute respiratory infection (ARI), Malaria, tuberculosis, asthma, diarrheal, abdominal pain, worms, skin diseases (such as: fungus/*caskado*), chickenpox, malnutrition, furuncle, measles, stomatitis, dental caries, acute otitis media, Febrile, dengue, malnutrition (Overweight, and undernutrition (Batticaca & Wardhani 2018; Batticaca, 2018; Batticaca & Kristina, 2020, 2021, 2022; Batticaca, Kristina, Agussalim, 2023). Childhood diseases are a leading cause of death in children. Community health centers carry out first-level health service efforts in an integrated and sustainable manner, including individual health efforts (UKP). and public health efforts (SMEs). The role of nurses in carrying out efforts to provide health services for toddlers is as a care provider, educator, advocate, coordinator, counselor, researcher. The purpose of the study was to identify health problems in toddlers in the Paniai Regency Health Service Area.

Literature Review

Community Public Health Center (PHC) Concept

PHC is a health service facility that organizes first-level health efforts to raise UKPs, and SMEs. Health service efforts are a health service system that is implemented through a special network of health workers who are willing to provide services through a nursing approach (Stanhope & Lancaster, 2010). First-level service efforts are activities and/or a series of health service activities aimed at improving, preventing, curing diseases, reducing suffering due to diseases and restoring individual health. Public health efforts (SMEs) are every activity to maintain and improve health as well as prevent and overcome the emergence of health problems targeting families, groups and communities (Ministry of Health, 2014). essential public health efforts and development public health efforts (Ministry of Health, 2014).

Health service efforts are carried out in an integrated and sustainable manner. First-level individual health efforts are carried out in the form of outpatient care, emergency services, one-day care, home care, and hospitalization based on consideration of health service needs. Individual health efforts are carried out in accordance with standard operational procedures and service standards. To carry out health efforts, PHC must organize health center management, pharmaceutical services, public health nursing services, and laboratory services (Ministry of Health, 2014).

Essential public health efforts include: health promotion services; environmental health services; maternal, child, and family planning health services; nutrition services; and disease prevention and control services.

Essential public health efforts must be organized by each health center to support the achievement of minimum service standards (SPM) in the district/city health sector. Public health efforts development is a health effort whose activities require efforts that are initiative and/or extensification and intensification of services adjusted to the priority of health problems, the specificity of the work area and the potential resources available in each health center.

Objectives, Functions, and Authority of the PHC. The purpose of health development organized by the PHC to support the achievement of national health development goals, namely to increase awareness, willingness and ability to live a healthy life for people living in the working area of the PHC so that the highest degree of health is realized (Trihono, 2010). To achieve its goals, the health center has a function, namely the health center, which is the implementation of the first level of SMEs and UKP in its work area, as a vehicle for education of health workers. In carrying out its function as an implementation of UKM, the health center is authorized to carry out: planning based on the analysis of public health problems and the analysis of the needs of the necessary services; advocacy and socialization of health policies; communication, information, education, and community empowerment in the health sector; mobilize communities to identify and solve health problems at every level of community development in collaboration with relevant sectors; technical guidance on service networks and community-based health efforts; Improving the Competence of Human Resources of PHC; monitoring the implementation of development to be health-oriented; recording, reporting, and evaluation of access to quality and coverage of health services; and recommendations related to public health issues, including support for early warning systems and disease control responses (Health Minister RI, 2014).

In carrying out its function as the implementation of UKP, the health center is authorized to provide health services: comprehensive, sustainable and quality basics; prioritizing promotive and preventive efforts; organizing individuals, families, groups and communities; security and safety of patients, officers, and visitors; Coordinating Principles and Inter and Interprofessional Cooperation; medical records; recording, reporting, and evaluation of the quality and access to health services; improving the competence of health workers; the development of first-level health service facilities in their work areas; and referral screening in accordance with medical indications and referral systems.

Health Disorders, and Health Problems

A child with health problems is characterized by fever, nasal congestion, and runny nose. decreased appetite, rashes appear on the skin, vomiting, and diarrheal, weak and lethargic (Nutriclub, 2023). Health disorders in children are signs and symptoms of health problems that are being experienced. Health problems are complex problems that are the result of various environmental problems that are natural and man-made. The arrival of disease is inevitable, although sometimes it can be prevented. The health status of a community is linked to various factors. These factors include the health care system; health service economics, policy, politics, and community nursing care; cultural differences and communal nursing care; environmental health (Nies; & McEwen, 2007).

The Role of Nurses in Children Under-Five Health Services

Health Minister RI (2020) determine the role of health workers where this includes nurses, namely: Conducting: cross-program coordination at health centers/health facilities in determining steps to deal with the Covid-19 pandemic; Integrated socialization with other programs including to people who have toddlers, about the prevention of the spread of Covid-19, emergency conditions and information on the nearest referral hospital; data analysis of at-risk toddlers that require quick action; coordination of cadres, RT/RW/village heads/sub-districts, and community leaders related to child targets and routine health services in a pandemic situation; providing health services to toddlers by triaging the application of the principles of infection prevention and control (PPI) and physical distancing in the health services provided.

Research Methods

This study uses a type of exploratory quantitative descriptive research with a retrospective approach through a study of medical record documentation of toddler patients treated at the Yaro Health Centre in 2023. Located at the Yaro Health Centre, Yaro District, Nabire Regency, Central Papua Province. The number of samples was 406 medical records using purposive sampling. The reason for choosing the location is because the Yaro Health Center is one of the technical implementation units that serves all residents with various health problems, both healthy and sick. CPHC Yaro serving 6 villages, namely Ororodo, Dogopai, Bomopai, Yaro Makmur, Jaya Mukti, and Wanggar Pantai in Yaro District and other surrounding villages. To reach the health center, patients must walk and or use two-wheeled vehicles, because there is no public transportation on four- wheeled wheels and or motorcycle taxis.

CPHC Yaro only provide outpatient care and referrals for patients with serious or severe health problems. All patients who receive treatment do not pay even though they do not have health insurance. The number of health workers is inadequate, there are nurses who concurrently act as ambulance drivers, there are security personnel, nutritionists, pharmacists, laboratory workers, and administrative personnel, but there are no permanent doctors (civil servants), almost 90 existing workers have honorary status with an inadequate amount of salary. The researcher carried out data collection after receiving approval from the Nabire Regency Health Office, and the Yaro Health Center and the person in charge of the patient's medical records. The data that has been collected is processed using a univariate computer to describe the characteristic frequency distribution and frequency distribution of health disorders of children under-five. The data that has been collected is processed using a univariate computer to describe the frequency distribution of characteristics and frequency distribution of health disorders of children under-five each month which is sourced from the CPHC Operational Cost Fund

Data collection uses a questionnaire for assessing health disorders of toddlers who are treated at the Yaro Health Centre, Yaro District in 2023. Nabire Regency, Central Papua Province. To protect the human rights of participants from exploitation, the researcher obtained ethical feasibility No. 079/KEP-J/V/2024, dated May 27, 2024. The researcher carried out data collection after receiving approval from the Nabire Regency Health Office, and the PHC of Yaro Health and the person in charge of the patient's medical records. The data that has been collected is processed using a univariate computer to describe the characteristic frequency distribution and frequency distribution of health disorders of children under-five.

Characteristics of Children Under-Five

Table 1 shows the average age of toddlers at 24 months and 17 weeks, with a median of 24 months. Elementary school 0 months 72 weeks, minimum age 0 months and maximum 59 months. Table 2 shows that toddlers are in the age range of 0-12 months (babies) almost balanced with the age group of 12-24, namely 31%, 32%. Men 50.2% and women are not much different from women 49.8%. The results of this study are not much different from the study in Paniai, where the majority of toddlers who visited the West Koya Health Center in Jayapura City were in the age range of 0-12 months 33.9%. This is due to toddlers who visit the West Koya Health Center both healthy and sick. Healthy toddlers visit with the aim of obtaining basic immunization as well as monitoring the growth and development of children. Meanwhile, at the Yaro Health Center, toddlers on average visit the Health Center because they are sick with the aim of receiving treatment, even though they are also the ones who do the weighing. The height of children aged 0-24 who go to the PHC for treatment is attention-grabbing because at this time children who are sick are undernourished, resulting in growth and development disorders. Batticaca and Sinaga (2023) reported that there is a relationship between health problems and the nutritional status of toddlers where children who cough and have colds experience malnutrition by 20%, malnutrition by 13.3% compared to those without health problems at 8.6% and 3.7%, respectively; P-Value = 0.035; CI 95% = (0.68-0.75)

In the first 6 months of birth, the child is very important for the development of eating habits. The quality of nutrients affects the growth and development as well as the prevention of stunting. Various children's health disorders begin in childhood. Such as *Atherosclerosis*, obesity, diabetes osteoporosis, cancer. In the first 6 months of birth, the child is very important for the development of eating habits. The quality of nutrients affects the growth and development as well as the prevention of stunting. Various children's health disorders begin in childhood. Such as *Artherosclerois*, obesity, diabetes osteoporosis, cancer. Low incomes and minority families are at risk of malnutrition. But all groups showed poor nutritional intake. Several variables, including ethnicity, race, culture, socioeconomic status, affect what the family eats. Also, children have several characteristics that have an impact on their nutrition, such as slow eating, eating certain foods, allergies, acute or chronic health problems, and changes in developmental patterns (Stanhope and Lancaster, 2022).

Table 3. It shows that the majority of toddlers are domiciled in Yaro Makmur 29.8%, followed by Homora 18.5%, then Bomopai 13.5%. However, there are toddlers who live in Kilometer (KM) 10 by 1.2% and KM 16 (0.2%). Yaro Makmur is the location where the health center is located. The high number of toddlers from Yaro Makmur who visit the Yaro Health Center, because the location is not far from residents' homes so that it can be easily accessed, just by walking. For residents who have two-wheeled vehicles, they can reach the health center by using a private vehicle. Residents in Homora and Bomopai access Yaro health centers by two-wheeled vehicles. However, for remote areas such as Ororodo, Dogopai Jaya Mukti and Wanggar Pantai generally seek treatment at auxiliary health centers located in the area of each village in the Yaro district area. Distance to health services is one of the factors a person can access health services easily. Currently, the bridge to Ororodo, and Dogopai is broken, and there is abrasion of the road due to erosion of river water. This condition makes it difficult for residents to access the Yaro Health Center using two-wheeled vehicles. Meanwhile, the road to Jayamukti was also damaged, and the road access to Wanggar Beach is damaged. To make it easier for residents to access the Yaro Health Center, cross-sectional cooperation between the health office, the village

administration and the work office is needed to immediately repair damaged bridges and roads so that residents, especially toddlers, can easily obtain health services. Transportation according to (Dafyetal, 2016 in Maulany, Dianingati, and Annisa (2021) is an obstacle for people to access health facilities. There is a relationship between ownership, where those who own private vehicles use health facilities more than those who do not have them. Likewise, the places have a significant relationship with access to health facilities.

Health Disorders

Table 4 shows that the majority of toddlers who go to PHC of Yaro in Nabire Regency experience ISPA 50.7%, followed by diarrheal, 15.0%, malnutrition 5.2%, fever 3.9%, and skin disorders 3.7%, and other health problems. The results of this study are not much different from the research of Batticaca, Kristina, Agussalim (2023) where ISPA is the most common case of 41.2% experienced by toddlers in Paniai Regency, diarrheal 8.8%, and malnutrition. Likewise, research by Batticaca, Kusumawati, Bangun, and Agussalim (2023) obtained health problems experienced by toddlers who went to the West Koya Health Centre in Jayapura City, Papua, were affected by acute respiratory infection 50%, pneumonia 15.1%, Malaria, 10.2%, Fever 9.1%, other diseases including Tuberculosis, skin disorders, and worms; and nutritional status in the risk category for over weight 11.3%, underweight 15.6%, and wasting 9.7%. Health disorders of toddlers at the Yaro Health Centre are formulated based on medical diagnoses and medical personnel records obtained from the registration book of patients who visit the Yaro Health Centre. Not all medical diagnoses are written according to the standardization of diagnosis writing. This is due to the limited number of doctors and not all medical personnel who write in the patient registration book who go to the Yaro Health Centre. However, other health workers such as nutritionists, environmental health, and laboratory workers are involved in receiving patients, so they write down health data according to what is submitted by the patient's family.

Based on in-depth analysis by researchers, health disorders of toddlers who go to the Yaro Health Centre can be categorized into three main categories, namely infectious diseases, non-infectious diseases, and malnutrition. Disease is an indication of a dysfunction or pathological reaction to the source of infection (Stanhope and Lancaster, 2018). Infections are caused by microorganisms such as bacteria, viruses, fungi, and parasites, otherwise known as germs. Germs are everywhere and most do not cause infection and can even be beneficial. However, some germs can cause infections when they get into the wrong place, which can result in symptoms such as fever and illness (UK Health, 2024).

Infectious and infectious diseases have similarities or synonyms. Infectious diseases and infectious diseases are a double burden. Diseases are the result of interactions between human hosts, infectious agents, and the environment surrounding the human host. The principle of the existence of several influencing factors as the cause of disease emphasizes that infectious agents alone are not enough to cause disease: Disease agents must be transmitted in a conducive environment to vulnerable hosts, thus causing humans to get sick (Grimes, and Purwadi 2019 in, Sahar, Setiawan, Riasmini, 2019). Infectious diseases experienced by children under-five who are treated at the Yaro Health Center in 2023 consist of ISPA, pneumonia, bronchitis, pharyngitis, diarrheal, worms, malaria, tuberculosis, conjunctivitis, skin infections. ARTI, pneumonia, bronchitis, paringitis anatomically are respiratory tract infections caused by various factors, including smoke, smoke from wood

stoves, poor environmental sanitation, access to clean water so that the practice of washing hands, and house hygiene cannot be carried out properly, access to latrines, inadequate nutritional intake.

Children under-five are at the greatest risk with respiratory tract infections and all those are in low economy. Children with asthma and other respiratory problems are at risk of dirty air quality and chemical irritants, substandard homes, and malnutrition status (Stanhope, and Lancaster, 2022). Parents who do not understand the impact of cigarettes sometimes smoke in the house or while holding their children, without realizing the danger of cigarette smoke to themselves and other family members, including toddlers. Cigarette smoke in the environment will be inhaled by smokers, burned or exhaled from the smoker's mouth, or the end of the filter from the cigarette or pipe. The effect of cigarette smoke on the environment is dangerous for children under five and all residents in slums. Other risks have been conveyed by the electronic nicotine delivery system (ENDS) This production produces an aerosol mixed with a vapor liquid that affects toddlers and nicotine, toddlers who are exposed to the environment of cigarette smoke (ETS) will increase the middle ear canal infection periodically, asthma, upper respiratory tract infections, and frequent school absences, as well as the risk of cancer (Stanhope and Lancaster, 2010; Goniewicz at all in Stanhope, and Lancaster, 2022).

Diarrheal according to (Stanhope and Lancaster, 2018) usually comes from viruses or bacteria. E. may cause more cases of traveler's diarrhea than all other ineffective agents combined. Protozoan-induced diarrhea, such as those caused by Entamuba and Giardia, tends to be acute, and they are more likely to appear once travelers return home. Tourists need to pay special attention to what they eat and drink. Often the cause is food washed with unclean water. The results of this study are in line with the research of Fransisca, Chotijah, Bangun, and Agussalim (2024) where 3.8% of toddlers experienced diarrhea who visited the West Koya Health Centre in Jayapura City. Access to clean water and drinking water, access to latrines, hygiene practices and the environment are risk factors for diarrhea in children under-five.

Worms are parasitic infections caused by worms. The discovery of worm infections in toddlers who are treated at the Yaro Health Center indicates that worms are one of the health problems experienced by toddlers in the Yaro District area, Nabire Regency, Central Papua. Based on the analysis of medical records of children who went to the health center for treatment, worms were detected on family reports where the child vomited worms. Meanwhile, based on observations on toddlers who visited the health center and who happened to meet the researcher did not use footwear, they paid for big water around the yard of the house because there was no family latrine, as well as adequate clean water. There are possible cultural factors such as consuming meat that is not cooked (burning stones). However, to find out the risk factors for worms in toddlers in the PHC of Yaro Health working area, it is necessary to conduct further research on Risk Factors and/or determinants of worms in children under- five.. The results of this study are supported by other studies where there are toddlers who experience worms in the Muara Tami District, Jayapura city and are detected to be children vomiting. The reason is because children play on the ground by making holes using their hands, while pigs roaming in the residents' yards are not caged. Children also play without footwear. Another factor is the limitation of clean water and latrines (Batticaca and Kristina, 2018). A literature study concluded that the risk factors for worms in children are hand washing habits, activities on the ground without using footwear, nail hygiene, SPAL, water hygiene, toilet use, waste treatment, house floor conditions, knowledge level, parental work, and the use of deworming drugs (Arrizki, 2021).

Malaria is transmitted through the bloodstream by the plasmodium parasite and can be fatal. It is characterized by a cycle of fever and chills. Transmission through the bite of anopheles mosquitoes (Stanhope & Lancaster, 2010 in Fransisca, Chotijah, Bangun, and Agussalim, 2024). If treatment is delayed, malaria can cause complications in the kidneys, liver, spleen, brain (cerebral malaria), and other organs, as well as death.

Tuberculosis is a mycobacterial disease caused by mycobacterium tuberculosis. Transmission usually occurs through exposure to Basilius tubercle splashes in the urine from people who infection tuberculosis who speak, cough or sneeze. TB pain can cause symptoms of coughing for 3 weeks or more, pain in the stomach, coughing up blood, or sputum, fat, weight loss, fatigue, chills, fever, or night sweats (CDC, 2016 in Stanhope and Lancaster, 2022). The presence of children infected with TB in the PHC area needs to be visited by medical personnel and health workers to identify the possibility of contact with adults, both elderly or other family members with a history of TB.

Conjunctivitis (pink eye) is an inflammatory condition in the conjunctiva, a transparent mucosal membrane that lines the anterior part of the eyeball and the inside of the palpebral. This condition can cause a number of symptoms that include inflammation, swelling, dilation of blood vessels, discharge of fluid, and pain in the eyes. This condition, although generally considered a mild disease, can have a significant impact especially if not treated appropriately. (Prajna et al., 2022; (DOPA, 2018; and Almas, 2023, chit Wandini, Astuti, and Sayudin, 2024). Conjunctivitis experienced by toddlers who receive treatment at the Yaro Health Center, is generally accompanied by health problems such as measles, fever, and ISPA with an age group of 0-12 months (infants). The exact cause is unknown.

Skin infections experienced by toddlers such as fungi (caskado), pyoderma, other skin infections such as itching (on medical records written on the medical record are written bumps), smallpox. Skin disorders experienced by toddlers in addition to infections are also burns, stab wounds, and lacerations. The high level of skin disorders in toddlers is caused by various factors, such as children bathing in rivers where the water is not clean, the availability of clean water for bathing and other hygiene is limited. Generally, families only rely on rainwater, and well water is obtained from neighbors. According to the PHC officer, there was a child with burns because his house was on fire so that it caught fire, but the condition was not severe.

Through population movement, infectious diseases can spread to all corners of the world. However, not all infectious diseases can be transmitted directly from one person to another. World Health Organization (WHO), estimates that infectious diseases are still the cause of death in children and adolescents in the world, and are the second cause of death of 8 million people every year (WHO, 2014, in Stanhope and Lancaster, 2018). The causes of death of infectious diseases in the world are respiratory tract infections, diarrheal diseases, HIV/AIDS, TB, malaria, meningitis, pertussis, measles, hepatitis B, and other infectious diseases (Fauci and Morens, 2012, in Stanhope and Lancaster, 2018). Infectious diseases can be affected by various factors, namely social events, health services, food production, human behavior, the environment, public health, microbial adaptation (Centre for Communicable Diseases Control and Prevention, 1994 in Stanhope and Lancaster, 2018).

Behavior, access to latrines, and clean water have an impact on the implementation of hand washing and cleaning the house so that there is a risk of diarrheal and worms, lack of exposure to health information, lack of knowledge, environmental conditions full of bushes, and waterlogging and behaviors such as smoking in the house, risk of malaria, and ISPA. The habit of toddlers bathing in rivers with dirty water as a trigger for skin

infections in toddlers, access to health services due to damaged road connections and limited medical and health workers, are factors that affect the high number of cases of infectious diseases in toddlers in the Yaro Health Centre area, Yaro District, Nabir Regency. Therefore, it is necessary to intervene to repair damaged roads and bridges, disseminate health information through health education for families under five years old, provide clean water facilities and healthy latrines, improve environmental sanitation for residents such as the provision of wastewater or drainage channels and pay attention to environmental cleanliness, and the construction of houses that meet health standards is expected to reduce the incidence of infectious disease infections in this region. While non-communicable diseases include fever, burns, stab wounds, lacerations, wounds

Otitis Media Purulent (OMP) and Otitis Media Acute (OMA), allergies, food poisoning, animal (dog) bites, tumors, pain, and other diseases. The existence of burns, lacerations, and infectious wounds experienced by toddlers who go to the Yaro Health Centre for treatment, is an impact on the services of the Yaro Health Centre to improve and provide facilities for wound caregivers, as well as provide agreement for health workers in this case care to carry out wound care training on an ongoing basis. The Siloam Hospital Medical Team (2024), explained that otitis media is an inflammation of the middle ear due to a viral or bacterial infection. This condition is usually characterized by swelling and discharge in the middle ear which causes pain. Otitis media often appears as a continuation of allergies or a cold cough. Otitis media or ear inflammation is more common in children than adults, especially children aged 3 months to 3 years. This is because the eustachian tubes in children have not been fully formed. This condition can generally resolve on its own, but if it continues it has the potential to cause complications. OMA and OMP are infections of the auditory tract, which require the supervision of an ENT doctor, so the child must be referred to a hospital where an ENT doctor is available or a health examination as well as adequate medication and treatment.

The existence of allergies, and food poisoning, dog bites, and burns has an impact on health services at the Health Centre to improve services to the community, especially families of toddlers to convey information about the management of food allergies and poisoning, fire prevention, and dog bite care. For this reason, health PHC are encouraged to carry out cross-sector cooperation in training on the management of fire victims, as well as conducting animal health checks to detect rabies, and conducting rabies vaccinations for high-risk groups. Cases of pain and lumps in the organs of toddlers need to be referred to detect the causative factors so that they get the right treatment and treatment. For this reason, competent medical personnel are needed to handle these cases.

Malnutrition is a nutritional disorder that includes a deficiency, excess, or imbalance in a person's energy and/or nutritional intake. Malnutrition addresses three common conditions, namely first, malnutrition including wasting (low weight for height), stunting (low height for age) and underweight (low weight for age; second, micronutrient-related malnutrition, including a deficiency of essential vitamins and minerals or excess micronutrients; and third, overweight, obesity and diet-related non-communicable diseases (such as heart disease, stroke, diabetes and some cancers). Globally, in 2022, as many as 149 million children under 5 years old are estimated to be stunted (too short for age), 45 million are estimated to be malnourished (too thin for height), and 37 million are overweight or living with obesity (WHO, 2024). There are two main causes of nutritional problems, namely direct causes (lack of nutritional intake and infectious diseases), and indirect causes (food security/access to nutritious food); social environment (infant and child feeding, hygiene, education, and workplace); health environment (access to preventive and curative services); and residential

environments (access to clean water, drinking water, and sanitation facilities). The two causes of nutrition problems are influenced by income factors and economic inequality, trade, urbanization, and globalization, food systems, social security, health systems, agricultural development, and women's empowerment (Secretary to the Vice President of the Republic of Indonesia, 2019).

The results of the study showed factors related to malnutrition in toddlers 6-59 months, namely family income, knowledge, food availability and, PHBS; social environment (Mahartiningsih, Kundaryanti, Suprihatin, 2023; Manongga, Yutomo, 2022). Meanwhile, factors related to malnutrition and malnutrition, namely premature birth or low birth weight (BBLR), children with disabilities, babies born to mothers with adolescence, babies born to mothers with nutritional problems, children from families with poor economic levels, difficulty or lack of access to health services (Unicef, 2024). Malnutrition in this study consisted of very underweight, underweight, risk overweight using anthropometric indicators of weight index by age (BB/U). The BB/U index describes the relative weight of the child compared to the age of the child. This index is used to assess children who are underweight or very underweight (severely under weight), but cannot be used to classify obese children.

Underweight and is one of the indicators of malnutrition status in toddlers include underweight, this is related to stunted height growth and weight (WHO, 2012, in Kurniawan, Maulina, Fernandes, 2022). Very underweight is the nutritional status of children at the Z-score threshold of <-3 elementary school, including the category of malnutrition. Underweight is a child's nutritional stat at the threshold of Z-score -3 SD to <-2 SD. Overweight is the nutritional status of children who are at the threshold of $> +1$ elementary school (Ministry of Health, 2020). Factors related to underweight are maternal education, obese maternal nutritional status, and normal maternal nutritional status, number of child births, gender of girls, very rich family economic conditions, unhygienic drinking water sources (Kurniawan, Maulina, and Fernandes, 2022). Malnutrition and malnutrition have an impact on growth and development, so that wasting children are at 3 (three) times higher risk of stunting compared to children with good nutrition Unicef, 2024).

Children with underweight and underweight categories in this study were accompanied by various infectious diseases, such as TB, Diarrheal, ISPA and worms, as well as other diseases. Toddlers with very low weight and underweight at the Yaro Health Centre and nutritional risks are more detected when children come to PHC for treatment. Based on interviews with several families of toddlers met in the Yaro Health Centre area, the habit of eating once a day, and taking children to the garden from morning to evening and infectious diseases are the triggers for many children who do not get adequate food intake so that malnutrition occurs. Meanwhile, children at risk of being overweight may be due to a diet where children often consume foods that only contain carbohydrates, and rarely consume fruits and vegetables, and protein. Based on observations in the field, it is rare for the house to be overgrown with vegetables and fruits, but more with shrub plants. and other crops such as ducks, corn, sweet potatoes. This is because there are livestock such as cows and chickens that damage crops. The family garden is far from where the inhabitants live. Generally, those who cultivate the garden are women and are carried out in groups. The garden products are then sold to the market to meet daily needs, others for family consumption.

Based on in-depth analysis by researchers, the existence of various health disorders for toddlers at the Yaro Nabire Health Centre in Central Papua is influenced by various factors. Among these factors, namely the environment where toddlers live, hygiene practices, access to toilets, access to clean water, access to health

services, lack of exposure to health information, health and medical workers, Inadequate nutrient intake, unavailability of wastewater drains, the habit of toddlers sleeping on the floor without the use of idlers, cigarette smoke and fireplaces from wood stoves, houses that do not meet health, safety and comfort standards, damaged roads and bridges, perceptions of health, culture, and the economy.

The risk factors for health disorders are in accordance with the statement (WHO, 215 in Stanhope and Lancaster, 2018), that there are 7 (seven) factors that affect health, namely First, income and social status: high income and social status related to health, education; Second, education: low education is associated with poor health, more stress, and low self-esteem; The three physical environments: water security, and clean air; residential environment, home ownership, community, road; good work, working conditions, especially when people have been supervised a lot, all those who contribute to health; Fourth: social support networks: family, friends, communities such as culture, customs, traditions, and beliefs of health effects; Fifth, genetics and personal behavior, coping skills, health impacts; Sixth: health services: access and use of health services; Seventh: gender: men and women experience different types of diseases according to age.

To improve the health status of toddlers in this region, cross-sector and cross-program cooperation is needed by intervening in risk factors for health disorders in toddlers. Among them are repairing damaged road and bridge infrastructure, building houses according to health standards, providing toilets and clean water and wastewater channels for residents, health counselling about health disorders such as ISPA, diarrheal, malnutrition, malaria, worms, and other diseases as well as personal hygiene. For worms, it is necessary to carry out worm examinations repeatedly and then divide, while children with malnutrition are carried out nutritional improvement interventions, and health restoration for sick toddlers, providing competent and adequate media and health workers, involving health cadres in the form of nutritional interventions, and health counselling and conducting home visits for family development with health and medical workers.

The risk factors for health disorders are in accordance with the statement [2] that there are 7 (seven) factors that affect health, namely First, income and social status: high income and social status related to health, education; Second, education: low education is associated with poor health, more stress, and low self-esteem; The three physical environments: water security, and clean air; residential environment, home ownership, community, road; good work, working conditions, especially when people have been supervised a lot, all those who contribute to health; Fourth: social support networks: family, friends, communities such as culture, customs, traditions, and beliefs of health effects; Fifth, genetics and personal behaviour, coping skills, health impacts; Sixth: health services: access and use of health services; Seventh: gender: men and women experience different types of diseases according to age.

Table 1: Average Age of Toddlers

Variabel	Mean	SD	Mimal-Maksimal
	Median		
Age	24.17	0, 72	0-59
	24		

Table 2: Frequency Distribution of Age and Sex of Children Under-Five

Category	Number (n)	Percentage (%)
Age (month)		
0 – 12	126	31
Dec-24	130	32
24 -36	84	20,7
36 -48	59	14,5
48 59	7	1,7
Gender		
Male	204	50,2
Famale	202	49,8

Table 3: Frequentization Distribution of Children Under-Five Living

Category	Number (n)	Percentage (%)
Yaro Makmur (Yaro 1)	121	29,8
Tanah Merah	26	6,4
Bomopai	55	13,5
Homora	75	18,5
Jaya Mukti	30	7,4
Pagauto	20	4,9
Ororodo	18	4,4
Wamai	3	0,7
Wanggar Pantai	17	4,2
Kali Bambu	20	4,9
Kali Kabur	3	0,7
Kali Kabur	5	1,2
Epougi	7	1,7
KM 10	5	1,2
KM 16	1	0,2

Tabel 4: Distribusi Frekuensi Gangguan Kesehatan Balita

Category	Number (n)	Percentage (%)
Acute respiratory infection	205	50,5
Diarrheal	63	15,5
Malnutrition	22	5,4
Febrile	16	3,9
Skin disorders	15	3,7
Malaria	11	2,7

Rubella dd dengue hemoragic fever	10	2,5
<i>Otitis MediaPurulenta</i>	9	2,2
Pneumonia	5	1,2
Conjunctivitis	5	1,2
Worms	4	1,0
Headache	4	1,0
Pioderma	4	1,0
Abrasions	4	1,0
Lacerations	3	0,7
Wound Infection	3	0,7
Abscess	3	0,7
Bronchitis	3	0,7
Burns	2	0,5
Puruncle	2	0,5
Abdominal enlargement	2	0,5
Acute pharyngitis	1	0,2
Food allergies	1	0,2
Vomit	1	0,2
Constipation	1	0,2
OMA	1	0,2
Lump on the Shoulder	1	0,2
Dog Bitten	1	0,2
TB	1	0,2
Right Chest Pain	1	0,2
Body pain	1	0,2
Knee pain	1	0,2

CONCLUSION

The results of the study show that

1. The average age of toddlers is 24 months and 17 weeks, with a median of 24 months. Elementary school 0 months 72 weeks, minimum age 0 month and maximum 59 month. Toddlers are in the age range of 0-12 months, almost balanced with the age of 12-24 months. Men and not much different from women; domiciled in Yaro Makmur, Homora, Bomopai, Kilometer (KM) 10, and KM 16.
2. There are 10 top health disorders for toddlers who go to the Health Center for treatment, namely ISPA, Diarrheal, malnutrition, skin disorders, malaria, measles, dengue, OMP, Pneumonia and Conjunctivitis. With 3 main health problems, infectious diseases, malnutrition and non-infectious diseases as the main health problems of toddlers at the Yaro Health Centre. Meanwhile, the problem of health care is ineffective health management of toddlers, health behaviors tend to be risky, delays in the growth and development of toddlers, and a high risk of infectious disease transmission in toddlers. It is recommended to conduct risk factor intervention research to reduce the number of future cases of health disorders in toddlers.

SUGGESTION

1. To local government institutions, especially the Nabire Regency Health Office, to provide health services to toddlers both inside and outside the building, including home visits. Providing adequate resources for the community to make it easier to access health services. It is also recommended to coordinate with the provincial government through cross-sectors, including with the Public Works Office (DPU), the Regional Development Planning Agency (BPEDA), District heads, and village heads, especially for the repair of damaged bridges and roads starting from Ororodo, Pagouto, Bomopai, Yaro Makmur, Jaya Mukti, and Wanggar Pantai. to make it easier for residents to access health services.
2. Improving community empowerment in the health sector through various trainings and collaborations with existing educational institutions including Cenderwasih University and other universities in an effort to improve the health status of the population and access to supporting factors for health services such as the provision of medical personnel, and adequate health

To the head of the Health Center to motivate employees to improve services to residents by paying attention to the security and safety of officers through cooperation with security forces in the Yaro District area.

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