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ORIGINAL RESEARCH

DESCRIPTIVE STUDY OF LOW BIRTH WEIGHT INFANTS AT SEPASO HEALTH CENTER

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ABSTRACT

Low birth weight (LBW) infants are a serious health issue in Indonesia. LBW is associated with high mortality rates, chronic diseases risks, and growth and developmental disorders in children. This study aims to provide an overview of LBW occurrence at Sepaso Health Center. This research employed a descriptive research design. According to Sumadi (2016), descriptive research aims to provide a description of a situation or event. A case study approach was used in this research design, where information was collected to understand a specific event or problem. The population of this study consisted of individuals with authority regarding the influence of LBW infants at Sepaso Health Center. Purposive sampling technique was utilized for sample selection. Based on the research conducted on 30 mothers with low birth weight (LBW) infants, the findings revealed that 60% of the mothers were at risk due to being below 20 years or above 35 years old, while 40% of the mothers were not at risk with ages between 20-35 years. Parity showed that 30% were nulliparous and 70% were multiparous. Maternal occupation indicated that 40% were employed and 60% were unemployed. Antenatal care (ANC) distribution showed that 40% had frequent ANC visits, while 60% had inadequate ANC visits. Maternal food consumption during pregnancy showed that 27% had good consumption, 67% had sufficient consumption, and 6% had inadequate consumption. These findings can serve as a basis for enhancing attention and care for low birth weight infants at the Sepaso Health Center. It is expected that this study can contribute to the efforts in improving the health of low birth weight infants in the region.

Keywords

Low Birth Weight Infants, Sepaso Health Center, Descriptive Study

INTRODUCTION

Low Birth Weight (LBW) is one of the serious public health concerns on a global scale. According to the World Health Organization (WHO), LBW is defined as babies born weighing less than 2500 grams. This condition has both short-term and long-term impacts on the health of infants and the overall community (WHO, 2018). Data from the WHO indicates that approximately 2.7 million neonatal deaths occur annually out of 20 million births worldwide, with around 15-20% of them being LBW babies. This suggests that more than 3 million LBW babies are born each year. The prevalence of LBW varies across regions and countries, with the highest occurrences found in low- and middle-income countries, which also include the most vulnerable populations (WHO, 2018). Indonesia also faces a serious

issue regarding LBW, with a prevalence rate of 10.2%. This data is obtained from household documentation/records, such as the Mother and Child Health Book and the Healthy Pregnancy Card, so the actual number of LBW babies may be much higher (Ministry of Health, 2019).

The role of maternal nutrition during pregnancy is crucial in addressing the specific nutritional demands of pregnancy and positively influencing infant health. A healthy maternal diet involves consuming foods with the appropriate amount of calories and nutrients, including carbohydrates, fats, proteins, vitamins, minerals, fiber, and water (Manuaba, 2015). During pregnancy, mothers require higher nutritional intake compared to when they are not pregnant, as the consumed nutrients need to fulfill the needs of both the mother and the fetus. The quality of future human resources is significantly determined by the prenatal period, as the development of a child is influenced by the conditions during fetal growth (Darawati, 2016).

Nutrition education is an ongoing process aimed at enhancing knowledge about nutrition, fostering attitudes and behaviors conducive to a healthy life, and building commitment to improving the health and nutritional status of individuals and communities (Supariasa, 2014). This study aims to describe the condition of LBW in the Working Area of Sepaso Community Health Center. Malnutrition, poor nutritional status, and incorrect dietary patterns during pregnancy are the main focus, as they can lead to nutritional disorders such as chronic energy deficiency during pregnancy, fetal growth disturbances, and anemia or insufficient hemoglobin in the blood due to insufficient iron intake by pregnant mothers. Data from the East Kalimantan Provincial Statistics Agency shows that there were 92 pregnant mothers experiencing chronic energy deficiency out of a total of 475 pregnant mothers in 2020. Furthermore, out of the total number of births, 54 babies were born with LBW. In this study, the author is interested in conducting a descriptive study on low birth weight infants at the Sepaso Community Health Center. The goal is to understand the extent to which LBW issues affect the area and provide relevant information for the development of better health programs in the future.

METHOD

The research design utilized in this study is descriptive research, aimed at obtaining in-depth information about low birth weight (LBW) infants at the Sepaso Community Health Center. This research employs a case study approach, as proposed by Creswell, to investigate and comprehend the issues surrounding LBW infants in the said health center. This case study method allows the researcher to gather pertinent information concerning LBW cases at the health center and process the data to attain a deeper understanding of the problem at hand. In this study, the population under consideration consists of individuals with authority or influence regarding low birth weight (LBW) infants at the Sepaso Community Health Center. The sampling technique employed is purposive sampling, where the researcher predefines sample criteria based on the research objectives. The criteria for informants encompass those involved in handling LBW cases, possessing effective communication skills, being present at the research location throughout the study, and willing to share information. Informants in this research include key informants, namely the Maternal and Child Health staff directly engaged in handling LBW cases at the Sepaso Community Health Center, and ordinary informants, which are mothers who have experienced having LBW

infants and are knowledgeable about such incidents. Through this approach, the study aims to unearth comprehensive and in-depth information regarding factors related to LBW occurrences at the Sepaso Community Health Center.

The research was conducted in January 2023 over a span of 4 weeks at the Sepaso Community Health Center, located at Education Street No. 5, Rt. 22 Rw. 6, Sepaso Village, Bengalon Subdistrict, Kutai Timur Regency. This study is a single-variable research, focusing on a specific variable pertaining to LBW cases. The interview guideline serves as the primary instrument in this research, used to direct and guide the interview process with the informants. Additionally, the researcher employs recording tools and field notes to capture and document interview outcomes as research evidence. In qualitative research, the process encompasses defining the research focus, selecting informants as data sources, data collection, assessing data quality, data analysis, data interpretation, and drawing conclusions based on the findings. Utilizing this qualitative approach, the research aims to provide an in-depth and contextual understanding of LBW issues at the Sepaso Community Health Center and offer guidance for addressing these concerns.

Data analysis in this study commences with data collection from in-depth interviews using a manual approach aligned with qualitative data processing guidelines and the predefined research objectives. The interview data is subsequently analyzed through content analysis, aimed at identifying patterns, themes, and meanings emerging from the interview results. Following this, the analyzed data is interpreted in narrative form to depict pertinent findings from the research. The qualitative data analysis process involves multiple stages, including transcription of interview results to transform spoken data into written text, data reduction to identify the core of relevant information, in-depth analysis to extract meanings and connect findings, and triangulation to ensure the validity and consistency of analysis outcomes. Through this comprehensive data analysis technique, the research seeks to provide a deeper understanding of LBW problems at the Sepaso Community Health Center and support the formulation of conclusions based on accurate and valid findings.

RESULTS

Table 1. Frequency Distribution of Characteristics of Mothers with Low Birth Weight Babies at Sepaso Community Health Center.

Variable	Cathegory	Frequency	Percent (%)
Age	<20 Years	10	33
	35 Years	8	27
	20–35 Years	12	40
Parity	Nulliparous	9	30
	≥ 1 Time	21	70
Occupation	Employed	12	40
	Unemployed	18	60
ANC Intensity	Frequent	12	40
	Insufficient	18	60
BMI (Body Mass Index)	Underweight	6	20
	Normal	20	67
	Overweight	4	13
Total		**72**	**100**

Source: Primary Data

Table 1 presents the research results involving 30 respondents from Sepaso Community Health Center for the frequency distribution based on several variables. Based on the age of the delivering mothers, 10 individuals or 33% fall into the age group of <20 years, 8 individuals or 27% fall into the age group of >35 years, and 12 individuals or 40% fall into the age group of 20-35 years. Furthermore, concerning parity, 9 individuals or 30% are nulliparous, and 21 individuals or 70% have given birth ≥1 time. Regarding the occupation of the

delivering mothers, 12 individuals or 40% are employed, while 18 individuals or 60% are unemployed. The frequency distribution also indicates the Antenatal Care (ANC) intensity, where 12 individuals or 40% received ANC frequently, while 18 individuals or 60% received ANC with insufficient intensity. Lastly, the frequency distribution based on the Body Mass Index (BMI) of the delivering mothers reveals that 6 individuals or 20% are categorized as underweight, 20 individuals or 67% fall into the normal category, and 4 individuals or 13% fall into the overweight category. This data will serve as the basis for further analysis regarding factors associated with the occurrence of Low Birth Weight (LBW) infants at Sepaso Community Health Center.

Table 2. Frequency Distribution of Characteristics of Low Birth Weight Babies at Sepaso Community Health Center.

Variable	Cathegory	Frequency	Percent (%)
LBW (Low Birth Weight)	≥1500 – 2499 grams	23	77
	<1500 grams	7	23
LBW Classification	NKB-SMK	24	80
	NCB-KMK	6	20
Total		**30**	**100**

Source: Primary Data

Table 2 illustrates the frequency distribution of Low Birth Weight (LBW) incidents at Sepaso Community Health Center. Babies with birth weight ≥1500 – 2499 grams amount to 23 babies or 77%, and babies with birth weight <1500 grams amount to 7 babies or 23% out of 30 LBW infants. Meanwhile, the frequency distribution of LBW incident categories based on gestational age at Sepaso Community Health Center shows that NKB-SMK comprises 24 infants (80%), while NCB-KMK comprises 6 infants (20%). According to Table 2, the majority of respondents are in the age group of 1-2 years, totaling 15 respondents (75%), and the majority of respondents are male, totaling 12 respondents (60%).

DISCUSSION

The research findings presented in Table 2 provide an overview of the frequency distribution of Low Birth Weight (LBW) incidents at Sepaso Community Health Center. The data shows that the majority of LBW infants have birth weights between 1500 and 2499 grams within the Adequate Gestational Age (SMK) category. More specifically, two categories of LBW infants' birth weight were observed: Infants with birth weight between 1500 and 2499 grams: Totaling 23 infants or approximately 77% of the total LBW infants in this study. Infants with birth weight less than 1500 grams: Totaling 7 infants or approximately 23% of the total LBW infants in this study. This frequency distribution provides information on the prevalence of LBW infants at Sepaso Community Health Center and the proportional distribution between the two observed birth weight categories. The research findings are relevant to the frequency distribution data of the research subjects based on the age of delivering mothers at Sepaso Community Health Center. The data reveals that the majority of mothers at risk (age <20 years or >35 years) are 18 individuals or 60%. A previous study by Kordi et al. (2016) found a significant relationship between maternal age below 20 years and above 35 years with an increased risk of LBW. Similarly, research by Mortensen et al. (2013) demonstrated that teenagers under 20 years of age have 1.5 to 2 times higher risk of delivering a LBW baby compared to mothers aged 20 to 29 years.

The research findings also indicate a relationship between maternal parity and the occurrence of LBW within the Adequate Gestational Age (SMK) category. Mothers

with high parity (≥1 childbirth) tend to have a higher risk related to fetal growth disturbances and delivering a LBW baby. This finding aligns with studies by Prabawati et al. (2019) and Sudomo et al. (2018) which also found a relationship between maternal parity and LBW risk within the SMK category. Furthermore, the research results reveal a connection between maternal occupation and the occurrence of LBW within the SMK category. Unemployed mothers have a higher risk of delivering LBW infants. A previous study by Mahmoodi et al. (2015) also found that working mothers have a fivefold higher risk of delivering LBW babies compared to non-working mothers.

Moreover, inadequate Antenatal Care (ANC) is also associated with an increased risk of LBW within the SMK category. Research by Kamaluddin, R., et al. (2019) discovered that insufficient ANC is linked to an increased risk of LBW. Saimin & Amalia (2019) also demonstrated that insufficient intake of macronutrients during pregnancy can elevate the risk of LBW in newborns.

CONCLUSIONS

Based on the research results at Sepaso Community Health Center, the majority of delivering mothers are at risk due to their age (<20 years or >35 years), have parity ≥1 time, are unemployed, receive inadequate ANC, and have sufficient food intake during pregnancy. There is a significant frequency distribution in the occurrence of LBW, where the majority of LBW infants have birth weights between 1500 and 2499 grams (77%), and the majority occur during a normal gestational age (NKB-SMK) with a percentage of 80%. These findings indicate the need for appropriate prevention and intervention efforts to address the issue of LBW in the area.

REFERENCES

Manuaba. (2015). Ilmu Kebidanan, Penyakit Kandungan, dan KB. Jakarta: EGC.

Manuaba, I. B. G. (2017). Buku Ajar.

Mortensen, L. H., Diderichsen, F., Arntzen, A., & Gissler, M. (2013). Causal pathways linking socioeconomic factors and adverse birth outcomes: exemplified by preterm birth in Denmark and Finland. European Journal of Public Health, 23(5), 785-790.

Natanael, Y. d. (2018). Mahir Menggunakan SPSS Secara Otodidak. Jakarta: Elex Media Komputindo.

Notoatmojo, S. (2017). Metode Penelitian Kesehatan. Jakarta: PT. Rieneke Cipta.

Nurpadilla. (2021). Faktor-faktor yang Berhubungan Dengan Kejadian Berat Bayi Lahir Rendah (BBLR) DI RSUD Syekh Yusuf Kabupaten Gowa.

Nursalam. (2013). Metodologi Penelitian Ilmu Keperawatan: Pendekatan.

Prabawati, E., et al. (2019). Risk Factors for Low Birth Weight Based on Gestational Age Classification in Indonesia. Journal of Maternal and Child Health, 4(2), 140-148.

Saimin, A., & Amalia. (2019). Hubungan Konsumsi Makanan Ibu Hamil dengan Berat Badan Lahir Bayi di Daerah Pesisir. Jurnal Kesehatan Ibu dan Anak, 12(1), 93-101.

Syari, R., et al. (2015). The Role of Maternal Macronutrient Intake on Birth Weight of Infants in Padang City. Journal of Nutrition and Food Sciences, 5(4), 1-6.

Sudomo, P., et al. (2018). Risk Factors for Low Birth Weight Based on Gestational Age in Yogyakarta,

Indonesia. Jurnal Kesehatan Reproduksi, 9(2), 125-133.
Sugiyono. (2016). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.