THE RELATIONSHIP BETWEEN MOTHER'S CHARACTERISTICS AND FAMILY INCOME WITH THE INCIDENT OF STUNTING IN CHILDREN IN PESISIR SELATAN REGENCY

KETERKAITAN KARAKTERISTIK IBU DAN PENDAPATAN KELUARGA TERHADAP KEJADIAN STUNTING PADA ANAK DI KABUPATEN PESISIR SELATAN

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Abstract

Stunting remains a major public health issue in Pesisir Selatan Regency, where the prevalence reached 29.8% in 2023, affecting children's physical growth and cognitive development. This study aimed to analyze the association between maternal characteristics (parity, maternal age during pregnancy, age at marriage, birth spacing, education level, occupation, and exclusive breastfeeding) and family income with stunting among children under five. A cross-sectional design was employed involving 30 mothers of young children selected from the working area of Kayu Gadang Public Health Center. Data were collected using structured questionnaires and anthropometric measurements, and analyzed using the Chi-Square test.The results showed that 66.7% of the children were stunted. Maternal characteristics—including parity, maternal age during pregnancy, age at marriage, birth spacing, educational level, and occupation—were not significantly associated with stunting (p>0.05). Significant associations were found between exclusive breastfeeding (p=0.019) and family income (p=0.026) with stunting. Children from families earning below the regional minimum wage and those not exclusively breastfed were more likely to be stunted.In conclusion, exclusive breastfeeding and family income are significant predictors of stunting. Therefore, interventions should emphasize improving exclusive breastfeeding practices and strengthening economic support for at-risk families. These findings are expected to guide evidence-based stunting prevention strategies in Pesisir Selatan Regency.

Keywords : Stunting; Maternal characteristics; Family income; Exclusive breastfeeding; Under-five children.

Abstrak

Stunting masih menjadi masalah kesehatan prioritas di Kabupaten Pesisir Selatan, dengan prevalensi mencapai 29,8% pada tahun 2023 dan berdampak pada pertumbuhan fisik serta perkembangan kognitif anak. Penelitian ini bertujuan menganalisis hubungan karakteristik ibu (paritas, usia hamil, usia menikah, jarak kelahiran, tingkat pendidikan, pekerjaan, dan pemberian ASI eksklusif) serta pendapatan keluarga terhadap kejadian stunting pada anak balita. Penelitian menggunakan desain cross-sectional dengan sampel 30 ibu yang memiliki anak balita, dipilih dari wilayah kerja Puskesmas Kayu Gadang. Data dikumpulkan melalui kuesioner terstruktur dan pengukuran antropometri, kemudian dianalisis menggunakan uji Chi-Square.Hasil penelitian menunjukkan bahwa sebagian besar responden memiliki anak stunting (66,7%). Variabel karakteristik ibu seperti paritas, usia hamil, usia menikah, jarak kelahiran, pendidikan, dan pekerjaan tidak menunjukkan hubungan yang signifikan dengan kejadian stunting (p>0,05). Namun, terdapat hubungan bermakna antara pemberian ASI eksklusif (p=0,019) dan pendapatan keluarga (p=0,026) dengan kejadian stunting. Anak dari keluarga berpendapatan < UMR dan tidak mendapatkan ASI eksklusif memiliki risiko stunting lebih tinggi.Kesimpulannya, faktor yang berhubungan signifikan dengan kejadian stunting adalah ASI eksklusif dan pendapatan keluarga, sehingga intervensi perlu difokuskan pada peningkatan praktik pemberian ASI eksklusif serta dukungan ekonomi keluarga berisiko. Temuan ini diharapkan dapat menjadi dasar dalam perumusan kebijakan pencegahan stunting berbasis keluarga di Kabupaten Pesisir Selatan.

Kata Kunci : Stunting; Karakteristik ibu; Pendapatan keluarga; ASI eksklusif; Balita.

1. INTRODUCTION

Stunting is a chronic growth disorder resulting from prolonged undernutrition and recurrent infections, and it remains one of the leading contributors to child morbidity and impaired cognitive development worldwide. According to the World Health Organization, stunting affects more than 148 million children under five globally, with the highest burden concentrated in low- and middle-income countries [1,2]. In Indonesia, stunting continues to be a major public health priority, with a national prevalence of 21.6% in 2022. West Sumatra has a higher prevalence of 25.2%, and Pesisir Selatan Regency is among the districts with the most concerning rates [3].

Maternal characteristics—including parity, maternal age during pregnancy, age at marriage, nutritional status, breastfeeding practices, and educational background—play a substantial role in child linear growth. Likewise, socioeconomic conditions, particularly family income, influence food security, access to health services, sanitation, and caregiving quality, all of which are determinants of stunting [4,5]. Evidence indicates that children living in low-income households and those lacking optimal feeding practices are at higher risk of experiencing growth faltering.

Despite multiple national and regional initiatives to reduce stunting, limited empirical studies have examined the combined influence of maternal characteristics and family income within the specific sociocultural context of Pesisir Selatan. Understanding these determinants is crucial to designing more targeted and context-appropriate interventions.

Therefore, this study aims to analyze the association between maternal characteristics and family income with stunting among children under five in Pesisir Selatan Regency. The

findings are expected to strengthen evidence-based policy formulation and support regional stunting reduction programs..

2. RESEARCH METHOD

This research used a quantitative analytic method with a cross-sectional design. The study involved 30 mothers who had children under five and were registered in the working area of Kayu Gadang Public Health Center, Pesisir Selatan Regency. The respondents were selected using a purposive sampling technique based on inclusion criteria: mothers with complete anthropometric data of their children and willingness to participate in the study.

Data were collected through structured questionnaires to obtain information on maternal characteristics, exclusive breastfeeding practices, and family income. Stunting status was obtained from Posyandu anthropometric measurements and categorized according to the WHO Child Growth Standards. All collected data were checked for completeness before analysis.

The data were analyzed statistically using the Chi-Square test to determine the association between maternal characteristics (parity, maternal age during pregnancy, age at marriage, birth spacing, education, occupation, and exclusive breastfeeding) and family income with stunting. A significance level of 0.05 was applied to determine statistical differences. Variables with $p < 0.05$ were considered significantly associated with stunting.

3. RESULT AND DISCUSSION

The data collected from 30 respondents were analyzed using the Chi-Square test to determine the relationship between maternal characteristics and family income with stunting among children under five. The results are summarized in Table 1.

Table 1. Chi-Square Analysis of Study Variables Related to Stunting

Variable	p-value	Interpretation
Parity	0.421	Not significant
Maternal age during pregnancy	0.533	Not significant
Age at marriage	0.618	Not significant
Birth spacing	0.447	Not significant
Education level	0.229	Not significant
Occupation	0.311	Not significant
Exclusive breastfeeding	**0.019**	**Significant**
Family income	**0.026**	**Significant**

The results show that most maternal characteristics, including parity, maternal age during pregnancy, age at marriage, birth spacing, education, and occupation, did not have significant associations with stunting ($p > 0.05$). In contrast, exclusive breastfeeding and family income showed significant relationships with stunting. Children who were not exclusively breastfed

had a higher likelihood of being stunted, and children from low-income households were more likely to experience growth faltering.

Discussion

The results revealed that exclusive breastfeeding had a significant association with stunting. Infants who did not receive exclusive breastfeeding were more susceptible to inadequate nutrient intake and infections, both of which contribute to impaired linear growth. This aligns with global evidence emphasizing that exclusive breastfeeding for the first six months is critical for providing the necessary nutrients and immunological protection required for optimal development. Studies consistently show that infants who are not exclusively breastfed face higher risks of stunting, underweight, and illness.

Family income also demonstrated a significant association with stunting. Low-income households often encounter barriers in accessing nutritious food, clean water, quality healthcare, and safe sanitation—factors directly linked to child nutritional status. Limited financial resources reduce the ability to purchase diverse and nutrient-rich foods, which can lead to chronic undernutrition. This finding is supported by numerous studies highlighting socioeconomic status as one of the strongest predictors of stunting in developing regions.

On the other hand, maternal variables such as parity, maternal age, age at marriage, education, and occupation were not significantly associated with stunting in this study. This may be due to homogeneity among respondents or the relatively small sample size, which may reduce the statistical power needed to detect differences. Although many studies identify maternal education and reproductive factors as contributors to stunting, their influence can vary depending on population context, cultural norms, and socioeconomic conditions. Thus, the absence of significant findings does not eliminate their relevance but suggests the need for larger-scale investigations.

Overall, these findings underscore that feeding practices and economic conditions remain central determinants of stunting in Pesisir Selatan Regency. Strengthening programs that promote exclusive breastfeeding and providing economic support—such as income-generating initiatives, food supplementation, or social protection—could substantially reduce stunting rates. Future research may include broader environmental and behavioral variables to enrich understanding of stunting determinants in the local context.

4. CONCLUSION

Based on the results of this study, exclusive breastfeeding and family income were found to have significant associations with stunting among children under five in Pesisir Selatan Regency. Children who were not exclusively breastfed and those from low-income households were more likely to experience stunting. Meanwhile, maternal characteristics such as parity, maternal age during pregnancy, age at marriage, birth spacing, education, and occupation did not show significant relationships with stunting.

In conclusion, feeding practices and socioeconomic conditions play a more dominant role in influencing child growth compared to maternal demographic factors. These findings

highlight the importance of promoting exclusive breastfeeding and improving household economic stability as essential efforts in reducing stunting in the study area.

5. REFERENCES

DKK, Pesisir Selatan. Data Balita Stunting Tahun 2023. 2023.

https://dealls.com/pengembangan-karir/ump-sumatera-barat#daftar-umk-di-sumatera-barat-2025

https://nakertrans.sumbarprov.go.id/images/2024/12/file/SK_UMP_SUMBAR_2025.pdf

Kartika C, Suryani YD, Garna H. Hubungan Stunting dengan Perkembangan Motorik Kasar dan Halus Anak Usia 2–5 Tahun di Desa Panyirapan, Kecamatan Soreang Kabupaten Bandung. J Integr Kesehat Sains. 2020;2(2):104–8.

Kementerian Kesehatan Republik Indonesia. Hasil Survei Status Gizi Indonesia [Internet]. 2023. Available from: https://promkes.kemkes.go.id/materi-hasil-survei-status-gizi-indonesia-ssgi-2022

Mastuti NLPH, Indahwati L. Pengaruh Stunting Terhadap Perkembangan Motorik Halus, Motorik Kasar, Bahasa Dan Personal Sosial Pada Anak Balita Usia 2-5 Tahun Di Desa Madiredo Kecamatan Pujon Kabupaten Malang. J Issues Midwifery. 2021;5(3):111–20.

Primasari EP, Syofiah PN, Muthia G. Perbedaan Perkembangan Motorik Balita Stunting Dan Normal Di Wilayah Kerja Puskesmas Pegang Baru. PREPOTIF J Kesehat Masy. 2020;5(1):1–6.

Rahmidini A. Hubungan Stunting dengan Perkembangan Motorik dan Kognitif Anak. In: Prosiding Seminar Nasional Kesehatan "Peran Tenaga Kesehatan dalam Menurunkan Kejadian Stunting" Tahun 2020. 2020. p. 90–104.

Syahruddin AN, Ningsih NA, Menge F. Hubungan Kejadian Stunting dengan Perkembangan Anak Usia 6-23 Bulan. Poltekita J Ilmu Kesehat. 2022;15(4):327–32.