ABSTRAK

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Latar Belakang : Kecukupan zat besi pada bayi sangat penting untuk memastikan pertumbuhan dan perkembangan yang optimal, terutama pada 1.000 hari pertama kehidupannya. Bayi yang mendapatkan ASI eksklusif berisiko mengalami kekurangan zat besi. Kekurangan zat besi memengaruhi peningkatan motorik, kecerdasan, dan daya tahan tubuh. Penelitian menunjukkan bahwa asupan zat gizi yang cukup dapat meningkatkan kadar zat besi ASI, karena asupan makanan ibu sangat mempengaruhi jumlah zat besi dalam ASI. Penelitian ini bertujuan untuk mengetahui hubungan antara asupan zat gizi, kadar hemoglobin dengan kadar zat besi ASI.

Metode: Penelitian ini mengunakan pendekatan *cross-sectional*. Sampel yang diteliti sebanyak 90 ibu menyusui yang memiliki bayi usia 2-24 minggu, Teknik pengambilan sampel *probabilitas proporsional to size* (PPS). Variabel yang diteliti meliputi asupan zat gizi, kadar hemoglobin, dan kadar zat besi ASI. Analisis data dilakukan dengan uji *korelasi pearson* dan regresi linier berganda.

Hasil dan Pembahasan: Hasil penelitian rerata kadar zat besi *foremilk* ASI adalah 238,42 µg/dL ±96,63 , sedangkan untuk rerata kadar zat besi *hindmilk* ASI adalah 332,47 µg/dL ±118,94. Kadar hemoglobin rerata 12,36 g/dL±1,09, Asupan protein rerata 107,45 g ±24,19, Asupan zat besi rerata 35,39 mg ± 21,71. Asupan Vitamin C rerata 133,56 mg ±65,85. Analisis bivariat menunjukan hubungan yang signifikan antara asupan zat gizi (asupan protein $p=0,005$, asupan zat besi $p= 0,015$, asupan Vitamin C $p =0,016$), kadar hemoglobin ($p =0,002$) dengan kadar zat besi *foremilk* ASI, dan hubungan signifikan antara asupan zat gizi (asupan protein $p=0,036$, asupan zat besi $p=0,010$, asupan Vitamin C $p =0,049$), kadar hemoglobin ($p=0,003$) dengan kadar zat besi *hindmilk* ASI. Analisis multivariat menunjukan variabel paling berpengaruh terhadap kandungan zat besi ASI *foremilk* maupun *hindmilk* adalah asupan zat besi ibu menyusui.

Kesimpulan: Asupan zat gizi (protein, zat besi, Vitamin C), kadar hemoglobin memiliki hubungan yang signifikan dengan kadar zat besi ASI baik dari *foremilk* dan *hindmilk*, dan hasil multivariat menunjukan bahwa yang paling berpengaruh terhadap kadar zat besi ASI baik *foremilk* maupun *hindmilk* adalah asupan zat besi.

KATA KUNCI: Kecukupan zat besi; Hemoglobin; zat besi ASI; *Foremilk* ; dan *Hindmilk*

ABSTRACT

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Background: *Iron sufficiency in infants is critical to ensure optimal growth and development, especially in the first 1,000 days of life. Infants who are exclusively breastfed are at risk of iron deficiency. Iron deficiency affects motor development, intelligence and endurance. Research shows that adequate nutrient intake can increase breast milk iron levels, as maternal dietary intake greatly affects the amount of iron in breast milk. This study aims to determine the relationship between nutrient intake, hemoglobin levels and breast milk iron levels.*

Methods: *This study used a cross-sectional approach. The sample studied was 90 breastfeeding mothers who had babies aged 2-24 weeks, probability sampling technique proportional to size (PPS). The variables studied included nutrient intake, hemoglobin levels, and breast milk iron levels. Data were analyzed using Pearson correlation test and multiple linear regression.*

Results and Discussion: *The mean breast milk foremilk iron level was 238.42 µg/dL ±96.63, while the mean breast milk hindmilk iron level was 332.47 µg/dL ±118.94. Hemoglobin levels averaged 12.36 g/dL ± 1.09, protein intake averaged 107.45 g ± 24.19, iron intake averaged 35.39 mg ± 21.71. Vitamin C intake averaged 133.56 mg ± 65.85. Bivariate analysis showed a significant relationship between nutrient intake (protein intake p=0.005, iron intake p=0.015, Vitamin C intake p=0.016), hemoglobin levels (p=0.002) with breast milk foremilk iron levels, and a significant relationship between nutrient intake (protein intake p=0.036, iron intake p=0.010, Vitamin C intake p=0.049), hemoglobin levels (p=0.003) with breast milk hindmilk iron levels. Multivariate analysis showed the most influential variable on the iron content of foremilk and hindmilk breast milk was the iron intake of breastfeeding mothers.*

Conclusion: *Nutrient intake (protein, iron, Vitamin C), hemoglobin levels have a significant relationship with breast milk iron content of both foremilk and hindmilk, and multivariate results show that the most influential on breast milk iron content of both foremilk and hindmilk is iron intake.*

KEY WORDS*: Iron sufficiency; Hemoglobin; breast milk iron; Foremilk ; and Hindmilk*