ABSTRAK

Rasyida Afifah Marbun. Hubungan Asupan Zat Gizi Mikro Dengan Kejadian Hipertensi Pada Perempuan Pra Lansia Di UPT Puskesmas Sambas Kota Sibolga. Skripsi. Program Studi Gizi. Fakultas Teknik. Universitas Negeri Medan. 2026.

Hipertensi atau tekanan darah tinggi tergolong sebagai penyakit umum yang paling banyak diderita oleh orang Indonesia. Individu yang berusia 60 tahun ke atas memiliki risiko lebih tinggi mengalami penyakit degeneratif, termasuk hipertensi dikarenakan adanya proses penuaan. Berbagai penelitian menunjukkan bahwa asupan zat gizi mikro, seperti magnesium, kalsium, dan kalium, berperan dalam regulasi tekanan darah melalui mekanisme yang melibatkan kontraktilitas otot polos pembuluh darah, fungsi endotel, dan keseimbangan elektrolit. Tujuan penelitian ini untuk menganalisis hubungan asupan magnesium, kalsium dan kalium dengan kejadian hipertensi.

Penelitian dilakukan pada bulan Agustus-September 2025. Metode yang digunakan dalam penelitian ini adalah desain *cross-sectional*. Populasi dalam penelitian ini yaitu, perempuan usia 60-69 tahun yang terdaftar di wilayah kerja UPT Puskesmas Sambas Kota Sibolga sebanyak 710 orang. Metode pemilihan sampel yang digunakan adalah *purposive sampling* sebanyak 64 orang. Teknik pengumpulan data diperoleh melalui pengukuran tekanan darah menggunakan tensimeter digital dan wawancara terkait karakteristik responden serta data asupan makan menggunakan formulir *semi quantitative food frequency questionnaire* (SQ-FFQ). Analisis data dilakukan secara bivariat dan multivariat. Analisis bivariat dilakukan dengan uji korelasi *rank spearman*, sedangkan untuk analisis multivariat menggunakan uji regresi logistik.

Berdasarkan hasil penelitian, rata-rata asupan magnesium perempuan usia 60-69 tahun sebesar 279,22 mg, rata-rata asupan kalsium sebesar 427,71 mg, dan rata-rata asupan kalium sebesar 2330,16 mg. Proporsi responden yang mengalami hipertensi adalah sebesar 42,2% sementara proporsi responden yang memiliki tekanan darah normal adalah sebesar 57,8%. Hasil analisis uji korelasi *rank spearman* menunjukkan hasil asupan magnesium *p value* (0,001, *r* (-0,700), asupan kalsium *p value* (0,001), *r* (-0,418), asupan kalium *p value* (0,001), *r* (-0,566) dengan tekanan darah pada perempuan usia 60-69 tahun dengan taraf signifikan α = 0,05 yang artinya terdapat hubungan yang signifikan antara asupan zat gizi mikro (magnesium, kalsium dan kalium) dengan tekanan darah, dimana semakin tinggi asupan zat gizi mikro (magnesium, kalsium dan kalium) maka semakin menurun tekanan darah. Dari hasil uji regresi logistik menunjukkan bahwa asupan magnesium berhubungan dengan tekanan darah. Sedangkan asupan kalsium dan kalium menunjukkan bahwa tidak ada hubungan dengan tekanan darah.

Kata kunci : zat gizi mikro, hipertensi, perempuan pra lansia

ABSTRACT

Rasyida Afifah Marbun. The Relationship Between Micronutrient Intake and Hypertension in Pre-elderly Women at the Sambas Community Health Center in Sibolga City. Thesis. Nutrition Study Program. Faculty of Engineering. State University of Medan. 2026.

Hypertension or high blood pressure is classified as a common disease that is most commonly suffered by Indonesians. Individuals aged 60 years and above have a higher risk of developing degenerative diseases, including hypertension, due to the aging process. Various studies show that the intake of micronutrients, such as magnesium, calcium, and potassium, plays a role in regulating blood pressure through mechanisms involving vascular smooth muscle contractility, endothelial function, and electrolyte balance. The purpose of this study was to analyze the relationship between magnesium, calcium, and potassium intake and the incidence of hypertension.

The study was conducted in August-September 2025. The method used in this study was a cross-sectional design. The population in this study consisted of 710 women aged 60-69 years registered in the working area of the Sambas Community Health Center in Sibolga City. The sampling method used was purposive sampling of 64 people. Data collection techniques were obtained through blood pressure measurements using a digital tensiometer and interviews related to respondent characteristics and dietary intake data using a semi-quantitative food frequency questionnaire (SQ-FFQ). Data analysis was performed using bivariate and multivariate methods. Bivariate analysis was conducted using the Spearman rank correlation test, while for multivariate analysis, the logistic regression test was used.

Based on the research results, the average magnesium intake for women aged 60-69 was 279,22 mg, the average calcium intake was 427,71 mg, and the average potassium intake was 2,330.16 mg. The proportion of respondents with hypertension was 42,2%, while the proportion of respondents with normal blood pressure was 57,8%. The results of the Spearman rank correlation test analysis showed that magnesium intake p value (0,001, r (-0,700), calcium intake p value (0,001), r (-0,418), potassium intake p value (0,001), r (-0,566) with blood pressure in women aged 60-69 years with a significance level of $\alpha = 0,05$ which means there is a significant relationship between micronutrient intake (magnesium, calcium and potassium) with blood pressure, where the higher the micronutrient intake (magnesium, calcium and potassium) the lower the blood pressure. The results of the binary logistic regression test showed that magnesium intake was related to blood pressure. While calcium and potassium intake showed that there was no relationship with blood pressure.

Keywords : *micronutrient, hypertension, pre-elderly women*