

ABSTRAK

Pengukuran tekanan darah merupakan salah satu prosedur penting dalam penegakan diagnosis medis. Akurasi hasil pengukuran sangat dipengaruhi oleh kesesuaian antara alat tensimeter dan komponen pendukungnya, seperti manset. Penelitian ini bertujuan untuk menganalisis pengaruh penggunaan tiga merek manset berbeda terhadap hasil pengukuran tekanan darah menggunakan tiga merek tensimeter aneroid, dengan memanfaatkan Digital Pressure Meter (DPM4) sebagai alat ukur acuan.

Metode yang digunakan adalah deskriptif kuantitatif dengan pengambilan data melalui pengujian pada lima titik tekanan (50, 100, 150, 200, dan 250 mmHg), masing-masing diulang tiga kali untuk setiap kombinasi tensimeter dan manset. Hasil penelitian menunjukkan bahwa penggunaan manset yang berbeda tidak memberikan pengaruh signifikan terhadap hasil pengukuran, sedangkan perbedaan merek tensimeter memiliki pengaruh yang signifikan terhadap akurasi hasil. Uji ANOVA dua arah dan uji Tukey mendukung temuan ini. Penelitian ini memberikan rekomendasi agar pemilihan tensimeter lebih diperhatikan dibandingkan variasi merek manset selama ukuran dan spesifikasi sesuai standar.

Kata kunci: tekanan darah, tensimeter, manset, akurasi pengukuran, DPM4.

ABSTRACT

Blood pressure measurement is a crucial procedure in medical diagnosis, where the accuracy of the results depends significantly on the compatibility between the sphygmomanometer and its components, such as the cuff. This study aims to analyze the effect of using three different cuff brands on blood pressure measurement results using three different brands of aneroid sphygmomanometers, with the Digital Pressure Meter (DPM4) serving as the reference device.

A descriptive quantitative method was applied, collecting data at five pressure points (50, 100, 150, 200, and 250 mmHg), with each combination of sphygmomanometer and cuff measured three times. The results showed that different cuff brands did not have a significant effect on measurement accuracy, while different sphygmomanometer brands did show significant differences. These findings were supported by Two-Way ANOVA and Tukey's test. The study suggests that more attention should be given to the choice of sphygmomanometer rather than the cuff brand, as long as the cuff meets standard size and specification requirements.

Keywords: *blood pressure, sphygmomanometer, cuff, measurement accuracy, DPM4.*