

**Undergraduate Program in Nursing
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ABSTRACT

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Blood Pressure Profile Before and After Blood Donation Among Voluntary Donors in the Working Area of the Blood Donor Unit of the Indonesian Red Cross (PMI), Pekalongan Regency

Background: Blood donation has the potential to induce changes in blood pressure due to a reduction in blood volume; however, post-donation blood pressure monitoring is frequently not performed on a routine basis. This study aimed to describe blood pressure levels before and after blood donation among voluntary donors in the working area of the Blood Donor Unit of the Indonesian Red Cross (PMI), Pekalongan Regency.

Methods: This study employed a descriptive research design with an accidental sampling technique. A total of 187 voluntary donors were recruited during the period of January 21 – February 1, 2026, through participation in a mobile unit program conducted by the Blood Donor Unit of PMI Pekalongan Regency. Blood pressure measurements were obtained using a digital sphygmomanometer both prior to and immediately following the blood donation procedure.

Results: The findings revealed that the majority of donors were male (77%), with a mean age of 39.13 years and a normal Body Mass Index (BMI) (46%). The mean systolic blood pressure prior to the donation procedure was 125.95 mmHg, and the diastolic was 83.94 mmHg. Following the blood donation procedure, the mean systolic pressure decreased to 122.06 mmHg and the diastolic to 81.85 mmHg, representing a reduction of 3.89 mmHg in systolic and 2.09 mmHg in diastolic pressure.

Conclusion: It was concluded that blood pressure among voluntary donors remained stable within the normal range both before and after blood donation, indicating that the blood donation procedure as implemented is safe for donors.

Keyword: *Blood donation, Blood pressure, Diastolic, Systolic, Voluntary donors*

Bibliography: 34 (2016-2025)