

# **Analisis Hubungan Intensitas Kebisingan dan Tekanan Darah Pekerja Unit Produksi PT XYZ Tahun 2023 = Analysis of the Relationship between Noise Intensity and Blood Pressure of PT XYZ Production Unit Workers in 2023**

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## **Abstrak**

PT XYZ bergerak di bidang industri produksi keramik porselen yang di dalam proses kerjanya terdapat bahaya kebisingan. Penelitian ini bertujuan untuk menganalisis hubungan antara intensitas kebisingan dan tekanan darah pekerja unit produksi PT XYZ tahun 2023 dengan adanya variabel berupa karakteristik pekerja (usia, riwayat keturunan, Indeks Massa Tubuh (IMT), masa kerja, dan durasi pajanan) dan perilaku pekerja (aktivitas fisik, kebiasaan merokok, dan penggunaan APD). Penelitian ini menggunakan metode kuantitatif dengan desain studi cross-sectional. Jumlah sampel dalam penelitian ini adalah 96 pekerja. Data intensitas kebisingan diperoleh dari data sekunder hasil pengukuran kebisingan area produksi tahun 2022 menggunakan Sound Level Meter dan data tekanan darah diperoleh dari hasil Medical Check Up perusahaan. Hasil penelitian tidak terdapat hubungan yang signifikan antara intensitas kebisingan dan tekanan darah pekerja ( $P\text{-value} = 0,209$ ;  $OR = 4,783$ ). Terdapat hubungan antara variabel IMT dan tekanan darah ( $P\text{-value} = 0,038$ ;  $OR = 2,976$ ), namun tidak terdapat hubungan antara variabel usia, riwayat keturunan, masa kerja, durasi pajanan, aktivitas fisik, kebiasaan merokok, dan penggunaan APD ( $P\text{-value} >0,05$ ).

.....PT XYZ is engaged in the porcelain ceramics production industry in which there is a noise hazard in the work process. This study aims to analyze the relationship between noise intensity and blood pressure of PT XYZ production unit workers in 2023 with other variables in the form of worker's characteristics (age, hereditary history, Body Mass Index (BMI), years of service, and duration of exposure) and worker's behavior (physical activity, smoking behavior, and use of PPE). This study used quantitative research methods with cross-sectional study design. There are 96 samples used in this study. Noise intensity data was obtained from secondary data of production area noise measurement results in 2022 using Sound Level Meter and blood pressure data was obtained from the company's Medical Check Up results. Study results show that there is not a significant relationship between noise intensity and worker's blood pressure ( $P\text{-value} = 0,209$ ;  $OR = 4,783$ ). There is a significant relationship between BMI variable and worker's blood pressure ( $P\text{-value} = 0,038$ ;  $OR = 2,976$ ), meanwhile there is no significant relationship between other variables, such as age, hereditary history, years of service, duration of exposure, physical activity, smoking behavior, and use of PPE ( $P\text{-value} >0,05$ ).