

## ABSTRAK

Yaasinta Eka Aldana Agustina

PENGARUH KEBISINGAN KERETA API TERHADAP GANGGUAN PENDENGARAN MASYARAKAT SEPANJANG BANTARAN REL JALUR SURABAYA (Studi Kasus Pada RT 1 RW 7 Kapasan, Kota Surabaya)

xvi + 48 Halaman + 9 Tabel + 3 Gambar + 15 Lampiran

Kereta api merupakan alat transportasi yang menghasilkan kebisingan. RT 1 RW 7 Kapasan, Kota Surabaya terpapar bising yang dihasilkan kereta api sebesar 89,90 dB tidak sesuai baku mutu kebisingan dan ada 13 orang teridentifikasi ciri-ciri gangguan pendengaran. Penelitian ini bertujuan untuk mengetahui pengaruh kebisingan kereta api terhadap gangguan pendengaran pada masyarakat sepanjang rel jalur surabaya (studi kasus pada RT 1 RW 7 Kapasan, kota Surabaya).

Penelitian ini kuantitatif berjenis analitik dengan pendekatan *cross sectional*. Jenis variabel penelitian ini terdiri variabel bebas (kebisingan) dan variabel terikat (gangguan pendengaran). Populasi dalam penelitian ini sebanyak 72 orang yang berumur  $\pm 35$  di RT 1 RW 7 Kapasan, kota Surabaya, kemudian diambil sampel berjumlah 61 dengan teknik pengumpulan data *simple random sampling*. Pengolahan data penelitian ini menggunakan *editing, coding, entry data*, dan *cleaning data* kemudia di analisis secara statistik dengan uji *Chi-square Test*.

Berdasarkan hasil penelitian diperoleh rata-rata kebisingan 55,0-74,7 dengan 7 waktu pengukuran dan 6 titik pengukuran dan rata-rata kebisingan keseluruhan 64,8 dB, 61 responden terkena gangguan pendengaran baik telinga kanan dan kiri, 45 (73,8%) responden berumur  $\geq 35$  tahun resiko terpapar kebisingan tinggi, 43 (70,5%) responden terpapar kebisingan  $> 8$  jam tidak memenuhi syarat lama paparan kebisingan untuk manusia, dan 41 (67,2%) responden jarak rumah dengan rel 5-10m dapat mengakibatkan resiko terpapar kebisingan tinggi dan tidak memenuhi syarat jarak rumah. Berdasarkan uji pengaruh *Chi-Square* didapatkan hasil ada pengaruh kebisingan terhadap gangguan pendengaran pada masyarakat sepanjang bantaran rel jalur Surabaya.

Oleh karena itu, disarankan masyarakat dapat mengetahui dampak buruk terpapar kebisingan terus-menerus dan mengetahui pengendaliannya yaitu minimal terdapat barrier antara rel dengan rumah. Selain masyarakat, diharapkan juga bagi Instansi Daerah Operasional (DAOP 8) lebih tegas dan selalu mengevaluasi terkait aktivitas bangunan di dekat rel.

*Kata Kunci* : Kebisingan, Kereta Api, Gangguan Pendengaran  
*Daftar Pustaka* : 3 buku - 31 Jurnal - 5 Peraturan (2007-2023)

## **ABSTRACT**

Yaasinta Eka Aldana Agustina

*The Influence of Train Noise on Hearing Impairment of Communities along the Surabaya Railway Line (Case Study in RT 1 RW 7 Kapasan, Surabaya City)*

*xvi + 48 Pages + 9 Table + 3 Picture+ 15 Attachment*

*Trains are a common mode of transportation, but they also generate significant noise pollution. In RT 1 RW 7 Kapasan, Surabaya City, the noise level from passing trains reaches 89.90 dB, exceeding the noise quality standard. As a result, 13 residents have been identified with symptoms of hearing impairment. This study aims to determine the impact of train noise on hearing health among residents along the Surabaya railway line, with a particular focus on RT 1 RW 7 Kapasan.*

*This research is quantitative with a logical type with a cross-sectional approach. This type of research variable consists of independent variable (noise) and dependent variable (hearing loss). The population in this study was 72 people aged 35 in RT 1 RW 7 Kapasan, Surabaya city, then 61 were sampled using simple random sampling data collection technique. The data processing of this study used editing, coding, data entry, and data cleaning, then statistically analyzed with the Chi square Test test.*

*Based on the results of the study, it was found that the average noise was 55.0 74.7 with 7 measurement times and 6 measurement points and the average overall noise is 64,8 dB, 61 respondents were affected by hearing loss in both the right and left ears, 45 (73.8%) respondents aged 35 years were at risk of exposure to high noise, 43 (70.5%) respondents were exposed to noise for 8 hours does not meet the requirements for long exposure to noise for humans, and 41 (67.2%) of respondents to the distance of the house with a rail of 5 10m can result in the risk of exposure to high noise and does not meet the requirements for the distance of the house. Based on the Chi Square influence test, it was found that there was an effect of noise on hearing loss in the community along the Surabaya railroad*

*Therefore, it is recommended that the public can know the adverse effects of continuous noise exposure and know the controls, namely at least there is a barrier between the rail and the house. In addition to the community, it is also expected that the Operational Regional Agency (DAOP 8) is more assertive and always evaluates related building activities near the railroad.*

*Keywords : Noise, Train, Hearing Impairment*  
*Bibliography : 3 book - 31 Journal- 5 Rules (2007-2023)*