ABSTRACT

Title of Abstract : "The Association Between Noise Exposure and Quality of Life Among Industrial Workers and Nearby Communities: A Literature Review"
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Background : Noise is an invisible environmental hazard that significantly affects human health and well-being. Chronic exposure to high-intensity noise can lead to auditory disorders such as Noise-Induced Hearing Loss (NIHL) and various non-auditory effects including stress, fatigue, hypertension, sleep disturbance, and psychological distress. These physiological and psychosocial impacts contribute to a decline in Quality of Life (QoL) among both industrial workers and nearby communities. Despite growing evidence on the adverse effects of noise, comprehensive synthesis of the relationship between noise exposure and QoL across occupational and community settings remains limited.

Objective : to identify and analyze scientific studies examining the relationship between noise exposure and Quality of Life (QoL)

Research Methods/ Implementation Methods : A systematic literature review was conducted to identify and analyze scientific studies examining the relationship between noise exposure and QoL. The literature search used the databases Scopus, PubMed, ScienceDirect, ResearchGate, and Google Scholar for publications from 2015 to 2024. The keywords included "noise exposure," "noise pollution," "quality of life," "occupational," and "community." Ten studies that met the inclusion criteria were selected for descriptive synthesis. Data were extracted on study objectives, population, exposure levels, instruments used (such as WHOQoL-BREF and HRQoL), and main findings.

Results : The review indicates a consistent negative association between noise exposure above 85 dB(A) and QoL. Across the selected studies, dominant reported effects included sleep disturbance, fatigue, stress, irritability, and decreased environmental satisfaction. Noise annoyance and noise sensitivity emerged as significant psychological mediators influencing the strength of this relationship. Occupational settings such as mining, manufacturing, and healthcare showed the highest exposure levels and greatest impact on workers' physical and psychological well-being. Community-based studies also revealed lower QoL scores among residents living near industrial or transportation noise sources.

Conclusion/Lesson Learned : Noise is a critical environmental and occupational determinant of health that affects multiple domains of QoL—physical, psychological, social, and environmental. The findings emphasize the need for comprehensive noise control measures, including engineering and administrative interventions, community awareness, and psychosocial coping strategies. Future research should employ longitudinal and mixed-method designs to capture the long-term and multifactorial impacts of noise exposure on human well-being.

Keyword : noise exposure, quality of life, occupational health, community health, environmental pollution