

THE 4TH MULAWARMAN INTERNATIONAL CONFERENCE ON TROPICAL PUBLIC HEALTH (MICTOPH) 2025



ABSTRACT

Title of Abstract : Determinants of Personal Protective Equipment (PPE) Compliance and

Occupational Health and Safety (OHS) Risk Management

Authors of Abstract : Mustika, Ida Ayu Indira Dwika Lestari, Iwan Muhamad Ramdan,

Muhammad Sultan

Affiliation : Others

Correspondence E-mail : mustikalilo10@gmail.com

Background: Occupational accidents remain a major global issue, particularly in developing countries such as Indonesia. Compliance with Personal Protective Equipment (PPE) and effective Occupational Health and Safety (OHS) risk management are key strategies to reduce workplace hazards. However, studies show that compliance levels vary widely, influenced by individual, organizational, and technical factors.

Objective: This literature review aims to synthesize findings from five empirical and analytical studies related to PPE compliance and OHS risk management in multiple work contexts, including construction, laboratory, and emergency services.

Research Methods/ Implementation Methods: A narrative synthesis was conducted based on five peer-reviewed studies published between 2021–2025. Articles were selected using inclusion criteria: (1) focus on PPE compliance or OHS risk management, (2) based on empirical data, (3) conducted in Indonesia. Extracted data included study design, population, key variables, and findings.

Results: Knowledge, attitude, and availability of PPE consistently emerged as significant determinants of compliance across studies. Organizational factors such as policy, supervision, and training quality also affected compliance. However, inconsistencies were found regarding the impact of work tenure and training. Technical and administrative controls, as emphasized in laboratory-based studies, complemented behavioral aspects but were rarely integrated into behavioral research frameworks.

Conclusion/Lesson Learned: PPE compliance is a multifactorial issue driven by behavioral, organizational, and technical determinants. Future research should adopt integrative and experimental designs to assess causal relationships, evaluate training effectiveness, and connect risk management practices with worker behavior.

Keyword: PPE compliance, occupational safety, K3, risk management, behavioral safety, Indonesia.