

# A PATH ANALYSIS ON THE BIOPSYCHOSOCIAL DETERMINANTS OF MULTI DRUG RESISTANT TUBERCULOSIS IN SURAKARTA

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## ABSTRACT

**Background:** Multidrug-resistant tuberculosis (MDR-TB) causes significant problem and cost for national TB control program. MDR-TB constitutes an increasing public health concern globally. The prevalence of MDR-TB is as high as 50%. One third of all newly detected TB patients are infected with MDR strains. This study aimed to analyze the bio-psychosocial determinants of MDR-TB in Surakarta, Central Java.

**Subjects and Method:** This was a case control study conducted in Dr. Moewardi Hospital and BBKPM, Surakarta, from September to November 2017. A sample consisting of 76 MDR-TB patients and 228 non MDR-TB patients were selected for this study by fixed disease sampling. The dependent variable was MDR-TB. The independent variables were age, drug-taking adherence, depression, comorbidity, drug side-effect, drug-taking supervisor, and family income. The data were collected using a set of questionnaire and analyzed by path analysis.

**Results:** MDR-TB directly increased with the lack of drug-taking adherence ( $b = -1.7$ ; 95% CI= -2.23 to -1.07;  $p = 0.001$ ) and comorbidity ( $b = 1.5$ ; 95% CI= 0.76 to 2.30;  $p = 0.001$ ). MDR-TB indirectly increased with depression, drug side effect, weak drug-taking supervision, and older age.

**Conclusion:** MDR-TB directly increases with the lack of drug-taking adherence and comorbidity. MDR-TB indirectly increases with depression, drug side effect, weak drug-taking supervision, and older age.

**Keywords:** bio-psychosocial determinants, MDR-TB

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