Exploring the Mental Health Impacts of Food Insecurity in Indonesia

Evidence from the Sleman Health and Demographic Surveillance System

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Summary: Food Insecurity refers to limited access to safe nutritious food, it has clear physical health effects, but its mental health implications remain underexplored, particularly in developing countries like Indonesia, where both food insecurity and mental health disorders have increased since the COVID-19 pandemic. Social network support may influence this relationship. This study examines the association between food insecurity and mental health disorders among adults in Sleman Regency, Yogyakarta, Indonesia, post-COVID pandemic and explores how social support and sociodemographic factors moderate this relationship.

Development Strategy

The study directly aligns itself with the **SDG 3:** *Good Health and Wellbeing* and **SDG 2:** *End Hunger*. The project also resonates with the Swedish Government's seven thematic priorities for international development cooperation:

- **Priority 3.2:** Improved Health for the Most Vulnerable
- **Priority 3.7:** Strengthened Humanitarian Support for People Affected by Food Insecurity





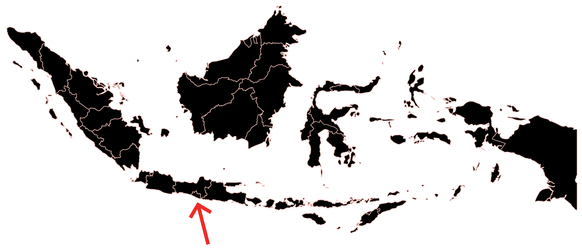
Methods

We conducted a cross-sectional study using data from the Sleman Health and Demographic Surveillance System (HDSS), wave 7 (2021-2022), involving adults > 18 years. above with a sample size of 3836 people. Food insecurity was measured using the 9-item *Household Food Insecurity Access Scale (HFIAS)*, while mental health was assessed using the *WHO Self-Reporting Questionnaire (SRQ)*, with a cutoff of ≥ 6. Logistic regression models tested associations, adjusting for sociodemographic variables and social support proxies (e.g., marital status, household size, social expenditure).



Results

Of the 3836 respondents, approximately 25% of respondents experienced some degree of food insecurity, and approximately 19.5% reported having a mental health disorder. While only 13% of food-secure individuals reported mental health disorders, 40% and 45% of the moderately and severely food-insecure reported mental health disorders, respectively. People who received support from governments and NGOs showcased a higher degree of food insecurity

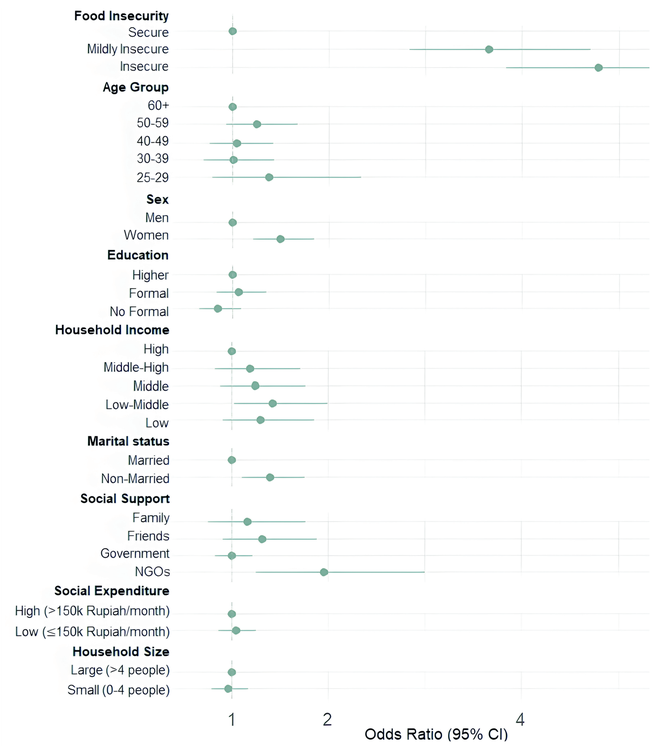


Sleman Regency, Yogyakarta Region, Indonesia

Findings / Conclusion

Food insecurity was strongly associated with mental health disorder **(OR: 4.79; 95% CI: 3.84–5.98)**. Higher odds of mental health disorder were found among women and those with lower education or socioeconomic status. Interaction analysis showed a higher predicted probability of mental health disorder among food insecure individuals (27%) compared to food secure ones (7%).

Government and NGO support recipients reported higher food insecurity, likely reflecting targeted assistance. Cultural norms, such as Javanese collectivism, may shape social support patterns. Food insecurity is significantly associated with mental health disorders in Sleman Regency, particularly among disadvantaged groups. These findings highlight the importance of addressing food insecurity as a public mental health issue in developing countries. Further research is needed to explore causal links and how social networks may buffer mental health risks.



Forest Plot containing the predictor and outcome variables. The reference groups are indicated at the top of each category. Error bar represent 95% Confidence Intervals.

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