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Abdominal Obesity among Older Population in Indonesia:

Socioeconomic and Gender Inequality, Pattern
and Impacts on Disability and Death

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Abstract

Background: Population ageing has contributed to the rise of chronic non-communicable diseases (NCDs). Concurrently, obesity prevalence is increasing in all age groups and has become a serious public health problem. Obesity is the main risk factors of the major chronic NCDs such as type 2 diabetes and has been linked to disability and mortality. Studies of socioeconomic inequalities in obesity among older people in Indonesia are scarce. Understanding socioeconomic inequalities are essential to develop appropriate health programme to improve the population health. This thesis describes the pattern of socioeconomic and gender inequality in abdominal obesity and analyses its impact on disability and all-cause mortality among older people in Indonesia.

Methods: This thesis is based on four studies conducted in Purworejo Health and Demographic Surveillance System (HDSS) site in Purworejo district, Central Java, Indonesia. This thesis uses both quantitative and qualitative methods. The qualitative study (sub-study 1) was based on 12 Focus Group Discussions (FGDs) with 68 participants from different age groups, sex, and living area. Content analysis was used to describe the community perceptions on diabetes and its risk factors. The quantitative studies (sub-study 2 to 4) utilized longitudinal panel data from the 1st (n = 11,753 individuals) and 2nd wave (n = 14,235 individuals) of the WHO-INDEPTH Study on global AGEing and adult health (SAGE) conducted among all individuals aged 50 years and older in 2007 and 2010. Sub-study 2 used concentration index and decomposition analysis to analyse the pattern of socioeconomic and gender inequality in abdominal obesity. Sub-study 3 used linear regression to examine the association between abdominal obesity and disability. Sub-study 4 used Cox regression analysis with restricted cubic splines to examine the impact of abdominal obesity on all-cause mortality.

Results: The FGDs reveals that the community holds unrealistic optimism in perceiving diabetes its risk factors. The community stated that chronic NCD such as diabetes is caused by modern lifestyles and mostly attacks those who are considered as the wealthy (sub-study 1). Socioeconomic inequality in abdominal obesity exists in Purworejo HDSS. Abdominal obesity was more prevalent among the affluent men and women, with a lesser inequality gaps between rich and poor among women. The main contributing factors to inequalities in abdominal obesity were occupation, wealth index, and education (sub-study 2). In three-year period, the mean waist circumference decreased significantly among the poor. An increase in waist circumference was significantly associated with disability, and the poor people were more disabled compared to the rich (sub-study 3). A U-shaped association was observed between waist circumference and all-cause mortality, particularly among women. This indicated an increased risk of mortality in the lower and upper end of the waist circumference distribution. The poor with low waist circumference had a higher risk of mortality than the rich (sub-study 4).

Conclusion: Abdominal obesity was disproportionately more prevalent among older Indonesian women. Though the wealthy people have higher burden of abdominal obesity, the poor people experiences more disability and higher risk of death. Misperception on chronic NCDs and its risk factors exist among the Indonesian population. Abdominal obesity prevention strategies are needed to prevent chronic NCDs, disabilities, and mortality among Indonesian older population. The prevention strategies should be culturally sensitive and address all socioeconomic levels. Special attention should be given to disadvantaged women as the most vulnerable group.

Keywords: Abdominal obesity, concentration index, disability, focus-group discussion, gender inequality, Indonesia, mortality, older people, socioeconomic inequality.

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