Multimorbidity: its prevalence and impact in middle-income countries

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Methods

Study design The study was conducted as an observational cross-sectional study using complex national surveys (2003 and 2007) and triangulated with a qualitative study conducted within outpatient clinics in Accra, Ghana

- Multimorbidity was based on simple counts. Using quantitative data statistical analyses were performed; univariable and multivariable analyses were undertaken using random effects logistic regression and multinomial regression models
- Thematic analysis was applied to qualitative data using Braun and Clarke’s method (2)

Ethics: Ethical approval was approved by the WHO for the quantitative data, and further ethics was provided by the University of Southampton and Ghana Health Services

Results

Quantitative Studies

Using the World Health Surveys, the prevalence of multimorbidity (from six conditions) was examined in 28 countries – the majority were MICs. Further analyses were undertaken to examine the associations by age, sex and education.

- Multimorbidity (MM) was positively (non-linearly) associated with National GDP
- The prevalence ranged from 1.7% in Myanmar to 15.0% in Brazil
- MM was significantly associated with age and sex
- There was a negative association of MM with education: 0.8 (0.2 - 0.6) odds ratio in all region analyses

Using the Study of Global Ageing (China, Ghana, India, Russia and South Africa), the prevalence and impact of multimorbidity (and comorbidities) were examined.

Effect of Comorbidity on WHODAS Disability

Data from 5 middle income countries

Key findings

- Effect of urbanisation on MM varied by country: most apparent in China
- Education may moderate effect of socioeconomic status on MM
- MM significantly associated with hypertension and obesity

Qualitative study (20 in-depth interviews; women in Accra)

- Family and community are an important trigger to their health-care seeking behaviour, psychological and social support
- Events or people in environment have powerful influence on stigmatisation; stigmatising condition has greater emphasis than other conditions
- Limited and inconsistent coverage of chronic disease under national insurance – possible barrier to holistic care