Co-morbidity patterns of health conditions in the community using the data from the 2007 National Survey of Mental Health and Wellbeing

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Aims The term co-morbidity was introduced in 1970 by Feinstein as the occurrence of other medical conditions additional to an index disease. The prevalence of co-morbidity is therefore often addressed based on a particular disease (e.g. psychosis) or a specific population (e.g. hospital patients). In this paper, we aim to take a population approach to identify the patterns of co-existing mental health disorders with various health conditions in the community.

Materials and methods We analysed the data from the 2007 National Survey of Mental Health and Wellbeing. The survey collected information about the prevalence of several mental health conditions and 21 physical health conditions from 8,841 Australians aged 16-85 years. Co-morbidity between these health conditions was measured by a concordance statistic with adjustment for coincidental co-morbidity by chance. The health conditions are then clustered based on the measures of strength of co-existing between pair-wise health conditions.

Results Findings indicate that co-morbidity of mental health conditions, particularly anxiety, affective and substance-use disorders, is common in the Australian population. The highest rate of co-morbidity is observed between anxiety and affective disorders. The cluster analysis identifies eighteen overlapping clusters. For example, stroke, heart disease, arthritis, and diabetes cluster together. Hay-fever, sinusitis, bronchitis, migraine, and back/neck pain tend to occur together. Co-morbidity also occurs in heart disease, arthritis, oedema, kidney problems, and back/neck pain. Sinusitis, oedema, migraine, and back/neck pain cluster together. Patterns of co-morbidity between mental disorders and the physical health conditions will be reported at the conference.

Conclusions Identification of co-morbid health conditions in the community has implications for theories of aetiology, healthcare and prevention of mental health problems in Australia. It is also an important process for research on the impact of co-existing of health conditions on individuals; for example, the sub-study of the “Environments for Healthy Living” for investigating the impact of co-existing of maternal psychological distress and physical health problems on the development of maternal resilience to manage stress in prenatal and postnatal periods of time, and their impacts on child health outcomes.