

Health Risk Factors Associated with Morbidity and Mortality in a National Sample of
People with Psychosis

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THESIS ABSTRACT

Cardiovascular disease (CVD) is the leading cause of death in people with psychosis. For over a decade, extensive research has shown that people who have a psychotic illness are more likely to live an unhealthy lifestyle and engage in health risk behaviours compared with the general population. The current thesis extends this prior research, using the World Health Organisation (WHO) as a framework to identify risk factors that are responsible for morbidity and mortality among the psychosis population. Out of the eleven health risk factors outlined by WHO, the first three manuscripts focus on two of these risk factors while the remaining manuscripts draw eight risk factors together to provide an overall picture of the health profile in people with psychosis.

This research was based on the 2010 Australian national psychosis survey using a large representative sample of adults aged 18-64 years with psychotic disorders ($n = 1825$). The first aim of the thesis was to identify factors associated with individual WHO risk factors in people with psychosis. Paper 1 explored factors associated with dietary inadequacy defined by the consumption of less than four daily servings of fruit and vegetables. Quantitative findings derived from this paper indicated that almost three quarters of participants failed to conform to dietary guidelines, and substance use was the major contributing factor for this dietary non-compliance. Paper 2 extended these findings by providing a comparison of nutrient intake in individuals with psychosis and the general population based on a smaller subset of this population. The former group consumed more fat, vitamins and minerals compared with the normal population. Most people with psychosis did not meet the recommended dietary intake for various nutrients. Paper 3 undertook an investigation into arterial stiffness and peripheral resistance and found that male gender, higher age and a family history of hypertension was positively associated with both of these blood pressure components. In this paper, unmodifiable risk factors were more related with increasing pulse pressure and mean arterial pressure, compared with modifiable risk factors relating to poor health behaviours.

The second aim of this thesis was to investigate the absolute number of the WHO-defined risk factors, present in people with psychosis. A risk factor count represents a novel approach to obtaining an overall picture of risks that are associated with disability and death. Paper 4 looked at the total number of these CV risks present in people with psychosis, with a particular focus on young people aged 18-24 years. This paper showed that young men and women had an average of 2-3 risk factors out of 8 WHO-defined risk factors. Paper 5

expanded these findings by examining the total number of CV risks in people with psychosis aged 18-64 years. Relative to the younger participants, older people with psychosis had more risk factors, and risk appeared to increase with increasing age.

Taken together, these findings presented within the following chapters, heighten our understanding of the physical health profile and excess mortality in people with psychosis, using risk factors well-validated by the WHO, that make a substantial contribution to morbidity and mortality.

DECLARATION

I, Lisa Hahn, certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint award of this degree.

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PUBLISHED WORKS

Chapter 3: Paper 1

Hahn, L. A., Galletly, C. A., Foley, D. L., Mackinnon, A., Watts, G. F., Castle, D. J., Watterreus, A., & Morgan, V. A. (published). Inadequate fruit and vegetable intake in people with psychosis. *Australian & New Zealand Journal of Psychiatry*: 48(11):1025-35.

Chapter 4: Paper 2

Nenke M. A., **Hahn, L. A.**, Thompson C. H., Liu, D., & Galletly C. A. (published). Psychosis and cardiovascular disease: Is diet the missing link? *Schizophrenia Research*: 161(2-3): 465-70.

UNPUBLISHED WORKS

Chapter 5: Paper 3

Hahn, L. A., Mackinnon, A., Foley, D. L., Morgan, V. A., Waterreus, A., Watts, G. F., Castle, D. J., Liu, D., & Galletly, C. A. (submitted). The role of arterial elasticity and cardiovascular peripheral resistance as clinically relevant indices of health status in people with psychosis.

Chapter 6: Paper 4

Hahn, L. A., Mackinnon, A., Foley, D. L., Morgan, V. A., Waterreus, A., Watts, G. F., Castle, D. J., Liu, D., & Galletly, C. A. (submitted). Counting up the risks – how common are risk factors for morbidity and mortality in young people with psychosis?

Chapter 7: Paper 5

Hahn, L. A., Mackinnon, A., Foley, D. L., Morgan, V. A., Waterreus, A., Watts, G. F., Castle, D. J., Liu, D., & Galletly, C. A. (submitted). Risk factors for death and disability in psychosis – the total picture?

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