Te Rau Hinengaro: The New Zealand Mental Health Survey

Chapter 11: The Study in Perspective

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11 The Study in Perspective

11.1 Community mental health surveys and policy

What is the place of this community mental health survey in helping health policy decision makers, service funders, providers, consumers and their families address the health needs of the New Zealand community? Whiteford (2001: 428) suggests that research can impact on the development, adoption and implementation of policy ‘by providing options which are scientifically validated and data which allow decisions to be made more on the basis of fact and less on political expediency and ideology’.

The results of community surveys such as this may be used by health policy decision makers, in several ways. Jenkins (2003: 190–191) outlines four reasons, from a government policy perspective, for such large-scale surveys.

- ‘Effective policy needs to be based on epidemiology and the social and economic costs of psychiatric morbidity.’
- ‘[R]epresentative information in a defined geographic area can document the use of existing services and can estimate the extent of unmet needs and services required meeting those needs.’
- ‘[V]alid information on prevalence and associated factors of presumed causal importance allow aetiological hypotheses to be generated and tested, albeit with the limitations inherent in cross-sectional studies.’
- ‘[B]y repeating community surveys it is possible to monitor the health of the population and trends together with changes in potential risk factors.’

As stated in the introduction to this report (chapter 1), the major task of the World Mental Health (WMH) Survey Initiative is to facilitate the conduct of general population mental health surveys. From the outset, the initiative has aimed to provide data to health policy decision makers in the participating countries on prevalences and societal costs of mental disorder, the unmet need for treatment of mental disorders, as well as potentially modifiable barriers to treatment. The initiative also aims to independently evaluate the conclusions of the Global Burden of Disease Study that mental disorders are among the most burdensome in the world (Kessler and Ustun 2000; World Mental Health Survey Consortium 2005). Independent confirmation of this finding will have important health resource allocation implications.

11.2 Key findings

11.2.1 Prevalence of disorder

In relation to prevalence of disorder the key findings from the survey are as follows.

- Mental disorder is common in New Zealand: 46.6% of the population are predicted to meet criteria for a disorder at some time in their lives, with 39.5% having already done so and 20.7% having a disorder in the past 12 months.
- Younger people have a higher prevalence of disorder in the past 12 months and are more likely to report having ever had a disorder by any particular age.
- Females have higher prevalences of anxiety disorder, major depression and eating disorders than males, whereas males have substantially higher prevalences for substance use disorders than females.
- Prevalences are higher for people who are disadvantaged, whether measured by educational qualification, equivalised household income or using the small area index of deprivation (NZDep2001).
- The prevalence of disorder in any period is higher for Māori and Pacific people than for the Other composite ethnic group. For disorder in the past 12 months the prevalences are 29.5% for Māori, 24.4% for Pacific people and 19.3% for Others, which indicates that Māori and Pacific people have a greater burden due to mental health problems. Much of this burden appears to be due to the youthfulness of the Māori and Pacific populations and their relative socioeconomic disadvantage.
- After adjusting for sociodemographic correlates no ethnic differences in the prevalence of anxiety disorders in the past 12 months are apparent, but even with adjustments the prevalence of bipolar disorder remains higher for Māori and Pacific people (Māori, 3.4%; Pacific people, 2.7%; Others, 1.9%), and substance use disorder is higher for Māori (6.0%) (Pacific people, 3.2%; Others, 3.0%). Major depression shows a different pattern: after adjustment Māori and Others have very similar prevalence (5.7%, 5.8%), whereas Pacific people have lower prevalence (3.5%).

11.2.2 Comorbidity

In relation to comorbidity the key findings from the survey are as follows.

- Comorbidity of mental disorders (the co-occurrence of two or more disorders) is common, with 37.0% of those experiencing 12-month disorders having two or more disorders. Mood disorders and anxiety disorders are most likely to co-occur. Comorbidity is associated with suicidal behaviour and increases service use.

- There is also comorbidity between mental and physical disorders. People with mental disorders have higher prevalences of several chronic physical conditions compared with people without mental disorders of the same age. People with chronic physical conditions are also more likely to experience mental disorders compared with those without physical conditions.

11.2.3 Disability

In relation to disability the key findings from the survey are as follows.

- Mental disorders are associated with impairment in several domains of functioning. Mood disorders are reported to be more disabling than either anxiety disorders or substance use disorders. The experience of multiple mental disorders is associated with greater role impairment than is associated with single disorders. Mental disorders and chronic physical conditions are, on average, associated with similar degrees of disability, and the combination of the two is more disabling than either alone.

11.2.4 Suicidal behaviour

In relation to suicidal behaviour the key findings from the survey are as follows.

- Of the population, 15.7% reported ever having thought seriously about suicide (suicidal ideation), 5.5% had ever made a suicide plan and 4.5% had ever made an attempt. The levels of suicidal ideation and suicide attempt are broadly comparable with those for several other developed countries.
- In the past 12 months, 3.2% experienced suicidal ideation, 1.0% made a suicide plan and 0.4% made a suicide attempt.
- The risk of suicidal ideation in the past 12 months was higher in females, younger people, people with lower educational qualifications and people with low household income, and among people living in more deprived areas (measured using the small area descriptor of socioeconomic adversity, the New Zealand Index of Deprivation) and in urban areas. The risk of making a suicide plan or suicide attempt was more common among younger people, people with low household income and people living in more deprived areas. The risk of making a suicide attempt was higher in people in urban areas.
- Individuals with a mental disorder had elevated risks of suicidal behaviour, with 11.8% of people with any mental disorder reporting suicidal ideation, 4.1% making a suicide plan and 1.6% making a suicide attempt.

- Mood disorders, anxiety disorders, eating disorders and substance use disorders were all associated with suicidal ideation, suicide plan and suicide attempt. Of individual disorders, major depressive episode had the strongest association with suicidal ideation, suicide plan and suicide attempt.
- Māori and Pacific people had higher prevalences of suicidal ideation, suicide plans and suicide attempts in the past 12 months than Others.
- After adjustment for sociodemographic correlates differences in suicidal ideation disappeared, but Māori and Pacific people still had higher prevalences of suicide plans and suicide attempts (plans: Māori, 0.9%; Pacific people, 1.0%; Others, 0.3%; attempts: Māori, 0.7%; Pacific people, 0.8%; Others 0.3%).

11.2.5 Health service use

In relation to health service use the key findings from the survey are as follows.

- People with more serious mental disorder in the past 12 months are more likely to have visited the healthcare sector for mental health reasons, including for problems with their use of alcohol or other drugs, in that period. However, the proportion making a mental health visit to the healthcare sector is low (only 58.0% of those with serious disorder, 36.5% of those with moderate disorder and 18.5% of those with mild disorder), which indicates under-treatment.
- In contrast to the marked differences in prevalence across sociodemographic correlates, only a few small differences exist in the percentage seeking help, and these are sometimes not in the same direction as for prevalence. For example, the youngest age group had a much higher prevalence of disorder in the past 12 months than the oldest age group, but almost identical percentages from both groups made contact with treatment services, when the distribution of severity in these two age groups was taken into account. These findings indicate that, given a need for treatment, no marked inequality of access to healthcare treatment in relation to sociodemographic correlates is apparent. However, people with lower educational attainment and people resident in rural centres or areas had lower rates of visits to the mental health specialty sector.
- Pacific people and, to a lesser extent, Māori are less likely than Others to make contact for mental health reasons with services. For those with disorder in the past 12 months 25.4% of Pacific people, 32.5% of Māori and 41.1% of Others made a mental health visit. The extent of these disparities is little affected by adjustment for sociodemographic correlates. This indicates barriers to access for Māori and Pacific people that are not explained by youthfulness or socioeconomic disadvantage.

11.3 Strengths of the survey

The utility of data from community mental health surveys, for health policy decision makers, is dependent on the scientific soundness of the study (Cooper and Singh 2000). The New Zealand survey has several strengths that will ensure it meets its stated aims and provides useful information for health policy decision makers.

First, the researchers used a survey design and sample frame that are consistent with best survey practice and will generate results estimates of acceptable precision that can be generalised to the New Zealand adult population. Within this sample, Māori and Pacific people were selected at higher rates ('oversampled') to allow, for the first time, estimates of acceptable precision for those communities. There was extensive consultation with overseas and local experts to achieve the optimal survey design.

Second, the conduct of the fieldwork and the data management conformed to best practice standards and incorporated quality controls to ensure adherence to best practice, as required by the WMH Survey Initiative (see 1.7.5) (World Mental Health Survey Consortium 2005). Extensive data cleaning and checking were conducted by the National Research Bureau, the research team and the WMH Survey Initiative Data Coordinating Center based at Harvard University (Boston, United States). The response rate of 73.3% exceeded the 70% required by the Ministry of Health and was similar to that obtained in the 1996/97 Health Survey (73.8%) (Haslett and Statistics New Zealand c1999) and the 2002/03 Health Survey (72%) (Ministry of Health 2004b). Post-stratification by age, sex and ethnicity was used to attempt to ameliorate any non-response bias.

Third, the diagnostic instrument used (the CIDI 3.0) was designed for cross-national community surveys and has been widely used for that purpose. It has acceptable reliability when it is used in such community surveys (Andrews and Peters 1998; Janca et al 1992; Wittchen 1994; Wittchen et al 1998). The CIDI 3.0 has been significantly revised on the basis of experience with earlier versions. Some of the important innovations compared to earlier versions include: a focus on 12-month as well as lifetime disorders in the same interview; detailed assessment of clinical severity; and disorder-specific and global assessment of the impact of both mental and common medical conditions (Kessler and Ustun 2004). Another important addition to previous versions of the CIDI is the inclusion of a section on health service use and treatment.

There is ongoing vigorous debate about the comparative reliability and validity of fully structured interviews such as the CIDI, administered by trained lay-interviewers, compared to semi-structured clinician-administered interviews, such as the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) (Wing et al 1990). Some critics have questioned the validity of lay-person-administered fully structured interviews and attributed the variability in prevalence rates between studies to problems with such questionnaires (Brugha et al 1999; Cooper and Singh 2000; Weich and Araya 2004). Proponents of the use of lay-person structured interview in large-scale community surveys have responded to these criticisms by arguing that the current evidence does support the contention that clinician-administered diagnostic interviews are more valid or reliable than lay-person-administered structured diagnostic interviews (Wittchen et al 1999). Within some of the WMH Survey Initiative sites, these issues are being explored further through clinical calibration studies. In these studies the researchers will examine the consistency of diagnoses by the lay-person-administered structured interview (the CIDI 3.0) and a clinician-administered semi-structured interview (the Structured Clinical Interview for DSM-IV (SCID)) (Kessler et al 2004a). Although the New Zealand study has not included a clinical validation study (because of resource limitations and cost), the results of clinical calibration studies from similar countries may be informative for interpretation of the New Zealand results.

11.4 Limitations of the survey

The survey does have limitations. As the sample frame is based on selection of participants from households and does not include people in institutions, people with severe, but uncommon, disorders are likely to be underrepresented. Thus, the survey does not provide useful prevalence rate estimates for people with severe low-prevalence disorder. It is noteworthy, that in the Australian Survey of Mental Health and Well-being (see 1.7.4), a survey of low-prevalence disorders was undertaken in parallel to the national community survey (Jablensky et al 2000). This low-prevalence disorder survey used a different survey design, sampling frame and diagnostic instrument than the community survey. For similar reasons, this New Zealand survey does not provide estimates of rates of dementia and associated cognitive impairment in the elderly. Accurate estimates of such disorders would require a different survey design and use of more extensive psychometric testing and medical evaluation.

Although the response rate of 73.3% is regarded as a satisfactory result for a household survey, it does mean that 26.7% of the intended sample were not interviewed. One consequence of non-response is a reduction in sample size. However, the likely response rate was taken into account when planning the survey. Furthermore, the confidence intervals presented throughout the report reflect the obtained sample size, so this consequence of the response rate is known. The second consequence of non-response is that response bias may occur. If respondents and non-respondents differ on some characteristics measured in the survey then there will be bias in survey estimates of those characteristics (Groves et al 2004, chapter 6, p 182). There are three important features of non-response bias.

- No information from respondents can establish whether there is non-response bias.
- Non-response bias is specific to the characteristic being measured; it is not a feature of a survey as a whole.
- Reducing non-response is likely to reduce non-response bias but does not necessarily do this.

Therefore, although best practice was followed there is no way of knowing to what extent and for what outcomes there was non-response bias. Nonetheless, some estimates of the extent of bias come from sensitivity analyses considering the effects of hypothetical ratios of prevalences in respondents and non-respondents. For example, if the prevalence of disorder X was 5% for respondents and 10% for non-respondents (a ratio of 2), and the response rate was 70%, then the true prevalence must have been 6% (100*(0.7*0.05 + 0.3*0.10)), so that the observed prevalence underestimated the true prevalence by one-sixth. If the ratio was only 1.5, the true prevalence must have been 5.75%. These examples show that with a response rate of 70% or more, even if non-responders have up to twice the prevalence of responders, the resulting bias is relatively small.

In the US two surveys have made additional efforts to obtain interviews from people who were ‘hard to reach’ and to interview them using a short form instead of the full interview. Even with financial incentives the response rate among hard-to-reach people is low (18.6% in the NCS-R). In the NCS the main response rate was 80.2% and a higher proportion of hard-to-reach people reported problems than was found for full interview respondents. A decade later in the NCS-R the response rate had fallen to 70.9% but comparing full interview and hard-to-reach respondents there was no evidence of non-response bias on any of those questions which covered anxiety, mood, substance problems and impulse–control problems (Kessler et al 2004b). Nonetheless, it is likely that people with rare serious current disorders such as anorexia or psychosis might be more likely to refuse to be interviewed.

The CIDI 3.0 does not generate diagnoses for specific psychotic disorders (such as schizophrenia or schizoaffective disorder), although a screening questionnaire for psychoses is included. It is known that lay-person-administered, fully structured interviews have poor reliability and validity for diagnosing such disorders (Anthony et al 1985; Cooper et al 1998). Given this difficulty and the issue with the sampling frame described above, it was decided early in the planning for this study not to try to ascertain the prevalence rates for such severe, but uncommon, conditions, as the validity and precision of such estimates would be poor.

The CIDI 3.0 does generate estimates of point and lifetime prevalence rates by disorder from the same interview. There is now considerable evidence that estimates of lifetime prevalence rates are biased by inaccurate recall of past episodes ('recall bias') (Andrews et al 1999a; Patten 2003; Wells and Horwood 2004). Put simply, when asked about past episodes of illness or disorder people forget episodes or tend to bring them forward in time to a time closer to the interview. This recall bias, along with 'telescoping' of episodes in time, results in underestimates of lifetime prevalence rates. These underestimates are more marked for older age groups. However, it is important to emphasise that the bias results in an underestimation of lifetime rates, not an overestimation of rates, so the lifetime prevalences presented in this report are conservative estimates of the 'true' rates. Recall bias may also influence estimates of mental health service use. Self-reported use is higher than administrative records indicate, for those who have been highly distressed (Rhodes and Fung 2004; Rhodes et al 2002). This implies that the extent of unmet need in this report is likely to be a conservative estimate of the 'true' extent.

This study, along with other previous cross-sectional studies, has shown an apparent cohort effect: younger age groups having higher rates of disorder than older age groups; or stated alternatively, older age groups having lower than expected (based on projections from incidence studies) rates of disorder. The possible explanations for this effect are provided in the chapter on lifetime prevalence rates. It is possible that recall bias and differential mortality in the elderly accounts, in part, for this effect (Patten 2003). It must be noted that the recall bias explanation does not challenge the high rates of depressive, anxiety and substance use disorder in the younger age groups; it does call into question the observed low lifetime rates of these disorders in the elderly.

The survey questionnaire was not formally translated into languages, other than New Zealand English. Interpreters were available to assist with interviews with participants from the Pacific communities. For people from other ethnic groups and non-English-speaking backgrounds, translators were not available. The costs and logistics of providing trained interpreters to all non-English-speaking participants made such provision impractical. If comprehension of the interview by the participant, due to language difficulties, was a problem, the interviewer did not proceed.

As previously stated, people living in institutions (rest homes, hospitals, sheltered accommodation, university colleges, prisons, armed forces group accommodation) and homeless people were not included in the sampling frame. Other surveys with different sampling strategies would be needed to study these groups.

The CIDI 3.0 (see 12.4), although originally designed to be used in cross-national surveys with different language groups, does follow the DSM and ICD classification systems. It can be argued that these systems reflect Western or Eurocentric conceptualisations and beliefs about mental disorder. For instance, the diagnostic instrument used does not incorporate Māori or other Pacific communities' beliefs about health. Furthermore, the study is quantitative and aggregates information across individuals to arrive at estimates for the population and subgroups within the population. Such an approach captures what is common across people but does not capture the unique experience of each person. These limitations accepted, this survey is best regarded as a pragmatic attempt to address some large information gaps about rates of mental disorder, the associated disability, correlates and patterns of health service use in the New Zealand population. The information is relevant to the strategic aims of the Second National Mental Health Plan (Minister of Health 2005). The information obtained will help inform the decisions of policy makers, but will also be useful for service funders, service providers, consumers and their families. Of itself, the survey will not be sufficient for these purposes and additional information from other types of study will be needed.