Psychosis in Indigenous populations of Cape York and the Torres Strait

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Psychosis in Indigenous populations of Cape York and the Torres Strait

Despite mental illness being a major contributor to the health gap for Aboriginal and Torres Strait Islander adults, reliable prevalence and severity data are limited. Although there has been work focusing on assessment and service delivery, research has been limited to a small case–control study and studies of subgroups at elevated risk. As a rough indicator, in the 2005–06 financial year, male and female Indigenous Australians were hospitalised for psychiatric disorders at 2.4 and 1.5 times the rate for non-Indigenous Australians, respectively. The admission rates ratios for male and female Indigenous Australians for schizophrenia and delusional disorders were 2.7 and 2.5, and for mental disorders due to psychoactive substances, 4.5 and 3.3, respectively.

In this analysis, we aimed to describe and characterise treated psychotic disorders in the Indigenous population of Cape York and the Torres Strait Islands in Far North Queensland.

Methods

Study location and population

Cape York and the Torres Strait region cover 7.5% of Queensland, with a population estimate for 2009 of 24 049 — 0.5% of Queensland’s population. Extrapolating from 2006 ethnic breakdown data, the region’s Indigenous population in 2009 was estimated at 15 904 (39% Aboriginal, 45% Torres Strait Islander, and 16% both Aboriginal and Torres Strait Islander), of whom 10 217 were aged 15 years and older, and constitute the denominator for the calculation of prevalence rates in this study.

Data collection

In mid 2010, we collated data on all adult Indigenous patients in the region who either symptomatic or in remission and receiving treatment for a psychotic disorder falling within the following International Classification of Diseases, 10th revision groups: organic-related (F06); substance use-related (F10–19); schizophrenia-related (F20–22); acute and transient psychoses (F23); and mood disorder-related (F25, F30–33).

Results

Of the 171 patients included in the study, 124 were reviewed or assessed during routine clinical community visits over 3 months in 2010.
Table 1: Prevalence of psychotic disorder in the Indigenous populations (≥ 15 years old) of Cape York and the Torres Strait stratified by ethnicity, sex, and age group*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sample, no. (%)</th>
<th>Population, %</th>
<th>Prevalence, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal</td>
<td>108 (63.2%)</td>
<td>38.5%; † 46.1%; ‡</td>
<td>2.3%; † 2.0%; ‡</td>
</tr>
<tr>
<td>Torres Strait Islander</td>
<td>58 (33.9%)</td>
<td>45%; † 53.9%; ‡</td>
<td>1.5%; † 0.9%; ‡</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>124 (72.5%)</td>
<td>47.8%</td>
<td>2.60%</td>
</tr>
<tr>
<td>Female</td>
<td>47 (27.5%)</td>
<td>52.2%</td>
<td>0.89%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age group</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>15–29 years</td>
<td>54 (31.6%)</td>
<td>24.4%</td>
<td>1.39%</td>
</tr>
<tr>
<td>30–39 years</td>
<td>57 (33.3%)</td>
<td>14.3%</td>
<td>2.51%</td>
</tr>
<tr>
<td>≥ 40 years</td>
<td>60 (35.1%)</td>
<td>25.1%</td>
<td>1.51%</td>
</tr>
</tbody>
</table>

*All within-category comparisons are statistically significant at P < 0.005 level, youngest - oldest not significant. † “Both Aboriginal and Torres Strait Islander” category removed from calculations. ‡ “Both Aboriginal and Torres Strait Islander” category collapsed.

Table 2: Prevalence of psychotic disorders by sex and ethnicity*

<table>
<thead>
<tr>
<th>Sex</th>
<th>Aboriginal (n = 110)</th>
<th>Torres Strait Islander (n = 61)</th>
<th>χ²; P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (n = 124)</td>
<td>3.59%</td>
<td>1.57%</td>
<td>χ² = 20.2; P &lt; 0.001</td>
</tr>
<tr>
<td>Female (n = 47)</td>
<td>1.23%</td>
<td>0.67%</td>
<td>χ² = 2.53; ns</td>
</tr>
</tbody>
</table>

χ²; P

ns = not significant. * “Both Aboriginal and Torres Strait Islander” category collapsed.

Seventeen were discussed with staff but not seen (9.9%). Of the other 30 (17.5%), three were in forensic detention (1.8%), six in prison (3.5%), four in hospital (2.3%), and five in other institutional care (psychiatric rehabilitation, nursing home, acquired brain injury unit or supported accommodation) (2.9%). The remaining 12 included those who had recently moved or been lost to follow-up (7.0%). Previously diagnosed patients in remission and not receiving treatment were excluded.

The 171 patients included in the study were aged between 17 and 68 years. Primary diagnoses were: schizophrenia-related (106; 62.0%), substance use-related (39; 22.8%), mood disorder-related (14; 8.2%), organic-related (6; 4%) and acute and transient psychoses (6; 3.5%). The overall treated point prevalence for psychotic disorders for Indigenous residents of this region aged 15 years and older was 1.68%.

In our sample, some patients identified as being of both Aboriginal and Torres Strait Islander descent (3% v 16% for the region). Prevalence rates by ethnicity with the “both” category removed and proportionally collapsed are shown in Box 1.

Sex by ethnicity stratified prevalence rates using the collapsed approach are shown in Box 2. Box 3 provides information about patients’ histories of hospitalisation (previous 12 months) and incarceration (lifetime), and whether they received depot medication. Box 3 also includes clinical judgements about compliance, whether alcohol or cannabis was currently used at clinically significant levels, and whether their use contributed to the onset of the psychotic disorders.

The prevalence of intellectual disability in the sample and the magnitude of their ethnicity-related differences presented in Box 3 were such that it was thought necessary to conduct further analyses on the 46 patients who were identified as having an intellectual disability. The results of these analyses show that the difference in proportions of Aboriginal and Torres Strait Islander patients identified with an intellectual disability was statistically significant (Box 4). A statistically significant difference was also revealed when this analysis was replicated with male patients only; but not with female patients only. There were no other statistically significant differences in intellectual disability between males and females.

Discussion

The treated prevalence rate for psychotic disorders in this Indigenous population is high, particularly among males and people of Aboriginal descent. Unfortunately, there is a dearth of articles that provide prevalence rates of psychotic disorders in the Australian context. Two of the more contemporary articles claim prevalence rates of about one-third of that calculated in this study. A study conducted at four urban centres, one each situated in Queensland (period prevalence rate, 0.42%), Victoria (0.59%), Western Australia (0.69%) and the Australian Capital Territory (0.39%), found a period prevalence rate (1 month) for psychotic disorders of 0.47%. A systematic review of 118 Australian and international studies found a period prevalence rate (1 to 12 months) for schizophrenia only of 0.55%, and a prevalence rate of 0.43% in rural centres. Acknowledging the limitations of comparison with these
studies, the elevated prevalence rates in the Indigenous populations described here are stark. Alcohol and cannabis use appear common in this clinical population, and have been shown elsewhere to have psychiatric implications for Indigenous populations. Research in a remote WA Aboriginal population demonstrated that heavy alcohol use was associated with psychotic symptoms. However, comparison to this survey’s findings may be complicated by differences between Cape York and the Torres Strait, including recent legislative restrictions on alcohol in Cape York. Although this would not have been relevant to the onset of psychosis (which preceded the restrictions for most patients), it has reduced quantities available since, and thus affected the impact on current clinical status. Widespread cannabis use is relatively recent, and the results are consistent with those in remote Northern Territory communities: cannabis use was more common among males (70%) than females (20%) (with 90% of users using heavily), and was associated with psychotic and depressive symptoms. Nationally, 7.7% of Aboriginal and Torres Strait Islander people over 15 years of age have an intellectual disability, and roughly 57% of Australians with intellectual disability develop a psychotic disorder. The prevalence of intellectual disability in our sample was 26.9%. This rate is substantially higher than that found in a WA study, which reported a prevalence of intellectual disability in a psychiatric sample of 1.8%. A review of admissions to the Cairns Base Hospital Acute Mental Health Ward found “cognitive difficulties” noted in the charts of 22% of Indigenous admissions in the 2004–05 financial year. Our study also showed a substantial difference between the rates of intellectual disability in the Aboriginal (38.9%) and Torres Strait Islander (6.9%) patients. Evidence supporting acquired rather than genetic explanations for these differences have been explored elsewhere. Our study revealed several important findings, but is constrained by some methodological limitations. The most obvious of these is the reliance on clinical judgements, the potential for interrater reliability confounds, and potential effects of culturally informed biases (including potential for misdiagnosis among Indigenous patients with autism and intellectual disability). However, there is evidence of good agreement between skilled clinicians for the diagnosis of psychosis among patients with intellectual disability, and in our study, all judgements were made by psychiatrists with shared responsibility for patients for many years. Although this does not establish validity or reliability, it makes it more likely that case ascertainment and interrater reliability are high, and as accurate as can be collected using applied clinical methods.

This study has corroborated clinical impressions of a high burden of psychosis in the Indigenous populations of Cape York and the Torres Strait, particularly male Aboriginal Australians. Our finding is supported by hospitalisation data showing that psychotic disorders are common and increasing in the Indigenous population of Far North Queensland. Disorders are associated with substance misuse and a surprisingly high rate of intellectual disability. The findings indicate an urgent need for further research in this region, to extend this research to other Indigenous populations, to identify causal and perpetuating factors, and to develop effective social and clinical measures to alleviate this burden.

Competing interests: No relevant disclosures.

Received 11 Feb 2011, accepted 14 Nov 2011.

18. Australian Integrated Mental Health Initiative (AIMHi), Indigenous Stream, Far North Queensland. Chart analysis of clinical pathways and possible length of stay indicators at the mental health unit, Cairns Base Hospital. Cairns: North Queensland Health Equalities Promotion Unit, School of Medicine, University of Queensland, 2007.