

The prevalence of mental disorders among children, adolescents and adults in the western Cape, South Africa

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Abstract

Objective: To provide estimates of the prevalence of selected mental disorders in the Western Cape, based on the consensus achieved by a working group established for this purpose. **Method:** An expert working group was established to provide technical expertise for the project. Potential risk factors likely to influence local prevalence rates were identified. Annual prevalence rates for adults and for children and adolescents were derived by consensus, informed by a systematic literature review. Prevalence rates were derived for individual disorders and adjusted for comorbidity. **Results:** The overall prevalence was 25.0% for adults and 17.0% for children and adolescents. **Conclusion:** Prevalence rates of child, adolescent and adult mental disorders were derived in a short period of time and with the use of minimal resources. Although of unknown validity, they are useful for policy development and for planning service utilisation estimates, resource costing and targets for service development for local mental health needs. This in the absence of an existing methodologically sound national prevalence study. We recommend that policy and programme developers draw on the expertise of local academics and clinicians to promote research-informed planning and policy development in the public sector.

Keywords: Prevalence; Mental disorders; Policy development

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Introduction

The Department of Health, Provincial Administration of the Western Cape (PAWC) conducted a health care service review and planning process during 2002 and 2003. The review process culminated in Healthcare 2010, a strategic plan for reshaping the provincial health services to improve quality of care within available resources.¹ The strategic plan prioritises strengthening the capacity of primary health care settings for treatment, reshaping infrastructure and building on staffing capacity to meet the health needs of service users. It provides an opportunity for integrating mental health service

delivery into the public healthcare system in the Western Cape, in line with international and national trends.

Internationally, there is consensus that the settings for mental health service provision should primarily be general hospitals and primary health care centres rather than custodial settings. The provision of mental health services in general health care settings should be supported by adequately trained (mental) health workers, readily available and appropriate psychotropic medication, and a safety net of appropriate community care facilities and services for achieving, maintaining and improving the psychosocial well being of mental health service users.²⁻³

Mental health service planning should be based on a systematic localized analysis of current mental health service resources, an assessment of the population requiring services and their unmet mental health needs, and an estimation of required resources to meet these needs.⁴ This information is needed to set achievable mental health service development

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targets in line with local health developments, service constraints and priorities.

Prevalence rates, adjusted for local population factors, provide a starting point for establishing the overall need for mental health services in a region. Consultations conducted at the end of 2002 by the first author (SK) in her role then as the Western Cape provincial mental health programme manager (PAWC), revealed an absence of national or provincial prevalence rates for mental disorders to inform the programme's input to service planning in the Western Cape. Ideally, prevalence rates are derived from local epidemiological data on psychiatric morbidity and disability, a costly and long-term project. In the absence of this data, best estimates based on other sources of information and expert opinion may be synthesised to provide working estimates of prevalence rates for disorders, adjusted for local factors.⁵ The latter process was selected for this project to provide the required estimates of mental health prevalence rates within the shortest timeframe, to inform contemporary planning processes within the province.

The aim of this paper is to report on the research process used by a working group established to formulate estimates of the prevalence of selected mental disorders in the Western Cape.

Methods

A working group was established by the mental health programme (PAWC) to provide technical expertise for the project. The working group consisted of departmental representatives (SK and AR), mental health clinicians/academics with extensive international and local research experience in the field of mental health (AF, BR, CM and CL) and a research assistant with a postgraduate mental health qualification (MF). The working group held an initial 2-hour planning meeting to arrive at a common understanding of the process to be followed to develop estimates. This process included: (i) reaching consensus on the scope of the project, (ii) deciding which mental disorders to include, (iii) considering potential risk factors likely to influence local prevalence rates, (iv) identifying essential sources of information, (v) conducting a systematic literature review of international and national mental health prevalence studies, (vi) developing a process for deriving the estimates, and (vii) deriving the estimates by consensus.

A systematic review of all DSM IV disorders was conducted, and an initial list of disorders for inclusion in the study was derived based on clinical and theoretical consensus regarding the disorders which (a) have the greatest burden of disability and/or (b) are most commonly present in clinical practice in the Western Cape. The research assistant (MF) conducted an online literature search (Medline, Sabinet) and compiled a synthesis of relevant epidemiological studies spanning the period 1985-2002. The working group used this synthesis to finalise the list of selected disorders for inclusion in the study, and to draft and finalise estimates during two further 4-hour consultation meetings. The epidemiological studies considered are listed in Appendix 1. In deriving estimates, greater weight was given to studies that were methodologically superior. Also, the more proximal to the Western Cape the study population, the greater the weight

given to that study, all else being equal. For example, a Western Cape study received greater weight than a Gauteng study, which in turn received more weight than a Zimbabwean study.

The prevalence estimates were also modified to take account of the prevalence of risk factors for a particular mental disorder in the Western Cape. If a risk factor was considered more prevalent in the Western Cape than the population on which an estimate was based, the prevalence rate was increased accordingly. Risk factors considered included HIV infection, poverty, unemployment, urbanisation, and exposure to violence, crime and other trauma.

Annual prevalence rates were selected for this project as an estimate of how many people need service during an average year, as these rates can inform annual departmental projections and budgets for service development. The diagnoses were based on the Diagnostic and Statistical Manual for Mental Disorders (DSM IV).⁶

Mental disorders are characterized by a high rate of comorbidity, in that individuals may present with more than one disorder at a given time.⁷ For this reason, it was necessary to adjust the rates of individual disorders to prevent an overestimation of the likely burden on services. A hierarchy of disorders was created in which severe disorders (schizophrenia and bipolar affective disorder) were given service priority. To allow for comorbidity with these priority disorders, the remaining disorders were reduced in proportion to their weighting relative to the total disorders. This was translated into the formula $(n \div \text{total of individual disorders}) \times (\text{overall prevalence of disorders} - \text{prevalence of severe chronic disorders})$, where n represented the rate of an individual disorder other than severe chronic disorders.

Comorbid prevalence rates for intellectual disability were not derived as it is assumed that persons with intellectual disability are included in the general population on which the estimates of disorders were based.

The rates of individual disorders provide a useful indication of likely clinical burden and can be used as a tool for training clinicians and to plan for the needs of specific disorders. The comorbidity-adjusted rates are intended for resource planning for the full range of mental health services, as they provide a more accurate calculation of the number of individuals who are likely to use services during an average year.

Results

Table I provides the prevalence estimates for the disorders included in the study. The overall prevalence was 25.0% for adults and 17.0% for children and adolescents. Among adults, the most common unadjusted prevalence rate was for nicotine use (48.0%), followed by alcohol dependence and major depressive disorder/dysthymia (both 15.0%). The anxiety disorders were the next most frequent, 6.0% for generalized anxiety disorder and posttraumatic stress disorder, and 5.0% for simple phobia. For children and adolescents, the most common disorders were generalised anxiety disorder (11.0%), followed by posttraumatic stress disorder and major depressive disorder/dysthymia (both 8.0%).

Table I Prevalence of mental disorders in the Western Cape.

Disorder	Annual Prevalence (%)	
	Unadjusted	Adjusted for comorbidity
Adulthood		
Intellectual Disability (IQ below 70)	2.5	
Intellectual Disability (IQ below 50)	0.4	
Intellectual Disability (IQ below 30)	0.1	
Dementia	3.0	
Alcohol Abuse	7.0	2.37
Alcohol Dependence	15.0	5.07
Drug Abuse	1.0	0.34
Drug Dependence	3.0	1.01
Nicotine Use	48.0	
Schizophrenia	1.0	1.00
Major depressive Disorder/dysthymia	15.0	5.07
Bipolar Disorder	1.0	1.00
Panic Disorder	1.0	0.34
Agoraphobia	3.0	1.01
Simple Phobia	5.0	1.69
Social Phobia	4.0	1.35
Obsessive Compulsive Disorder	2.0	0.68
Generalised anxiety disorder	6.0	2.03
Posttraumatic stress disorder	6.0	2.03
Overall	25.0	25.0
Childhood and Adolescence		
Intellectual Disability (IQ below 70)	2.5	
Intellectual Disability (IQ below 50)	0.4	
Intellectual Disability (IQ below 30)	0.1	
Attention Deficit Hyperactivity Disorder	5.0	1.25
Conduct Disorder	4.0	1.00
Oppositional Defiant Disorder	6.0	1.50
Enuresis	5.0	1.25
Separation Anxiety Disorder	4.0	1.00
Schizophrenia	0.5	0.50
Depressive Disorder and Dysthymia	8.0	2.00
Bipolar Disorder	1.0	1.00
Agoraphobia	3.0	0.75
Simple Phobia	3.0	0.75
Social Phobia	5.0	1.25
Generalised Anxiety Disorder	11.0	2.75
Posttraumatic Stress Disorder	8.0	2.00
Overall	17.0	17.00

Discussion

This project has provided estimates for prevalence rates of selected child, adolescent and adult mental disorders in a short period of time and with the use of minimal resources. Although the estimates are of unknown validity, they are more preferable for policy and planning purposes than estimates based on personal opinions or the uncritical application of results from prevalence studies elsewhere. This information has been used to inform the development of a service framework for mental health in the Western Cape Province. Specifically, the estimates contributed to service utilisation estimates, resource costing and service development targets proposed for the mental health component of the Healthcare 2010 plan in the province.

This project has some important limitations. First, the estimates reflect the considered consensus of a group of clinicians, managers and researchers. Every attempt was made to base the estimates on research findings, both in terms of descriptive prevalence studies and analytical risk factor studies. However, clinical experience and common sense influenced the estimates, especially in the absence of research evidence. It is possible that a different consensus group may have arrived at different prevalence estimates. Second, there were pressing time constraints. For this

reason, we were able to consult only a limited number of key articles and sources of information. Thirdly, the list of prevalence estimates is not exhaustive. Disorders such as epilepsy, somatoform, pain, and conversion disorders, and the autistic spectrum disorders were not included in the study. No studies were found which facilitated the development of annual prevalence rates for nicotine dependence for children, adolescents and adults. Prevalence rates for alcohol dependence and nicotine use in children and adolescents were also not derived, as insufficient literature was available to inform the development of these estimates. A prevalence rate for nicotine use (smoking prevalence) was derived for adults. This estimate is important given the health risks associated with smoking per se, and because smoking prevalence informs monitoring of the impact of current national legislative, policy and health promotion initiatives to reduce smoking rates in South Africa. Clearly, there is room for expansion of the preliminary output of this project.

Ideally, a methodologically sound prevalence study in the Western Cape, with a representative sample and instruments that have been developed specifically for this population, would be preferred. However, such a study would literally cost millions of rands. Given resource constraints faced by service planners and providers, we believe that the people of the Western Cape would be more appropriately served if available resources were allocated to service provision or health services operational research at this time, particularly as it is by no means certain that a large scale study will yield new findings which will significantly affect planning.

Conclusion

This study has shown the benefit of collaboration between academic clinicians and researchers, on the one hand, and service planners and policy-makers within government structures on the other. We recommend that policy and programme developers draw on the expertise of local academics and clinicians to promote research-informed planning and policy development in the public sector.

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