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Mortality Trends among inpatients at a Tertiary Psychiatric Hospital in Ethiopia

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Introduction: Mortality among mentally ill people is higher than for the general population. Given the changes in health service delivery in Ethiopia over the past decade, assessment of mortality patterns during this period may provide relevant policy information. This research aimed to examine the mortality rate in a tertiary psychiatric hospital in Ethiopia. Mortality in people with mental illness due to both natural and unnatural causes is higher than that of the general population, both in high and low-income countries. People with severe mental illness lose up to three decades of their lives due to premature death in this regard. Many factors contribute to increased mortality in this population, particularly those receiving long-term hospital care. Most deaths are due to natural causes, mainly cardiovascular diseases and infectious conditions such as respiratory and gastrointestinal infections. Reports of death due to seclusion and restriction are also linked to face-down physical restriction that may impair breathing. Sudden death in psychiatric hospitals accounts for around 5 per cent of all death. Though the high mortality rates for psychiatric patients were mostly due to natural causes, the underlying mechanism is still unclear, and the excess mortality is not fully explained. In addition, mentally ill people also die from unnatural causes such as suicide , homicide, and accidents, and have been reported in Ethiopia.

Method: It employed a case-control system. Statistics on inpatient mortality were collected retrospectively over a span of nine years (2006-2014) using reports and clinical information held at the tertiary hospital through the Health Management Information System (HMIS). Changes in the service configuration have also been tracked over the nine-year period to investigate the possible effect of improvements in mortality management. Simple descriptive methods and logistic regression were used to analyze the data. The study was conducted in Addis Abeba, Ethiopia, at Amanuel Hospital, a tertiary psychiatry hospital. The hospital is Ethiopia's only specialist mental health hospital although a decentralized and integrated service is being expanded across the country. The emergency hospital department accepts about 1500 patients annually. Using the software Statistical Package for Social Sciences, version 20, data were entered, cleaned, and analysed and Tabulated results using descriptive means and frequencies. The overall mortality rate of hospital inpatient admissions was also calculated using the total number of hospital admissions as the denominator over the nine years. Logistic regression research was performed to determine possible determinants and mortality associations

Results: In the nine year period a total of 16,081 patients were admitted. The overall inpatient mortality rate has been 2.5/1000 patients admitted. The rates of sex-specific all-cause mortality were high in females (4.6/1000) compared with males (1.8/1000). The mortality rate ranged between 0.5/1000 and 5.0/1000 over the nine years, with fluctuation signs commensurate with service changes. Most died from natural causes, mainly from infectious diseases, although suicide also accounted for 12.5 per cent death (n=5). Hanging was the most open method for inpatients to commit suicide and there is hope for avoiding these cases. Four of the five patients who committed suicide had a reported suicidality in this context. This indicates that the employees recognized the potential risk of these patients implying that prevention opportunities might have been missed. In addition, most (3 of the 5) committed suicide during working hours. These provide strong preventive tools, and have the ability to inform preventive approaches, such as incorporating 24-hour observations. Another vital explanation for mortality appears to be the lack of appropriate treatment in medical institutions for psychiatric patients. Approximately one quarter of the patients who died were returned from medical hospitals which could have provided better medical care than a psychiatric hospital. Better reference linkage can have a significant impact on the care of mental ill patients. However, it is important to consider the factors behind the lack of reference linkages, such as information about treating patients with co-morbid mental illness, and addressing those causes.

Conclusion: The study has a number of limitations, but the critical limitation has to do with the incompleteness of clinical records that have to do with the accuracy of the findings' interpretation. Other significant limitations concern the small sample size and the lack of standard confirmation of the cause of death. Mortality predominantly results from preventable causes like suicide. Service reconfigurations can play an important role in mitigating mortality; however, further comprehensive studies are needed to determine the effect on mortality and general morbidity of service configurations. Changes in the health system may have an impact on mortality; however, there are clear uncertainties that need further assessment. Referral linkages need to be improved and their working measured not only on how they perform with mental illness patients but also for the general public. Lastly, most deaths occur because of preventable causes that require changes in service planning for the patients at risk.

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