

Graduate Social Work Program

Prediction Model of Disparities in Health Coverage among Psychiatric Inpatients

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Research Objectives

The primary objective of our study is to examine the demographics (sex and marital status) of inpatients with schizophrenia and bipolar in general hospitals and compare differences in the patients' chances of possessing adequate health-insurance coverage for hospital expenses.

It is hypothesized that sex and marital status of psychiatric inpatients will predict the type of health-insurance coverage inpatients use to cover treatment expenses in short-term general hospitals. More specifically, we predict male inpatients are more likely than female inpatients to be uninsured and to use public health insurance, whereas married inpatients are more likely to possess private health insurance than those with single, divorced, separated, widowed, or unknown marital status.

Study Design

This study is cross-sectional and uses secondary data from the National Hospital Discharge Survey (NHDS), sourced from the National Center for Health Statistics.

Study Design (cont'd)

The NHDS morbidity survey provides national estimates regarding demographic characteristics, diagnoses, health-insurance-coverage types, bed sizes, admission types, admission sources, ownership and geographic regions of hospitals, surgical and non-surgical procedures, and up to seven diagnoses patients receive in non-federal short-term general hospitals. The survey is a publicly available data that produces reports concerning the US hospitalized population and contain no identifying information regarding patients; hence, there was no risk of disclosure or violation of patient privacy, and no need for informed consent. Public-use data and documentation from 2005 and 2007 are used.

Conclusions

In this study, demographics concerning sex and marital status were found to significantly predict opportunities to obtain health-insurance coverage among psychiatric inpatients in general hospitals, suggesting disparities have a cumulative impact on patients with schizophrenia and bipolar concerning their access to available treatment.

Relevance to policy, delivery or clinical practice

A. Recommended policy changes

- (1) Elimination of public-health-insurance provisions that limit psychiatric patients' access to specialized psychiatric care in free-standing psychiatric hospitals.
- (2) Expansion of Medicare to all citizens. Medicare and Medicaid currently cover only one-third of the population in the US and, despite its current limitations, Medicare remains more efficient than many private health insurers.
- (3) The implementation of universal health-insurance coverage that guarantees mental-health care as a right, regardless of employment.

B. Relevance to clinical practice

Study results can also inform clinicians about at-risk populations who are not likely to own health insurance or to own public health insurance with limitations and exclusions concerning their treatment. Such individuals should be targeted using community outreach efforts prior to their hospital admission. Several treatment approaches have been developed in attempts to address this population's needs more effectively. One such approach is the patient-centered outcomes approach, which can allow patients to contribute to the design, planning, and assessment of their own discharge plans and to be partners in the design and delivery of their own treatment. Male and unmarried inpatients' inputs into their own treatment plan can provide knowledge regarding means of responding to gender-based and marital-status-specific needs and of increasing equity in psychiatric admission at hospitals.

Principal Findings

741,020 hospital discharges were included in this study, representing a weighted total of 75,800,804. 40% of the married inpatients with schizophrenia and bipolar-disorder were male, whereas 60% were female. Almost 43.8% of divorced, separated, widowed, or unknown were male patients, and 56.2% were female patients.

The estimated coefficients of the multinomial logistic regression analysis showed male patients, compared to the reference category (private health insurance), were more likely to possess public health insurance and to be uninsured than female patients (Exp (B) = 1.33 for public health insurance, and Exp (B) = 1.43 for uninsured patients; $p < 0.05$).

Married patients were less likely to have public health insurance and to be uninsured than to have private health insurance, whereas inpatients with other marital status were more likely to be uninsured and to be publicly insured, than to have private health insurance (Exp (B) = 0.38, Exp (B) = 1.278 for publicly insured married and other marital statuses; Exp (B) = 0.50, Exp (B) = 2.31 for uninsured married and other marital status; $p < 0.05$).

In summary, the results indicate health-insurance-coverage type is significantly impacted by inpatients' sex and marital status. Female and married inpatients with schizophrenia and bipolar have better chances of having private health insurance than male patients who are single, widowed, or divorced, or patients with unknown marital status.

Research funder(s)

No funding sources have been involved in the conduct of this research and/or the preparation of the poster.

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