Self-rated Health as a Predictor of Hospitalizations in Patients with Bipolar Disorder and Major Depression: A Prospective Cohort Study of the United Kingdom Biobank

Authors: Haoyu Zhao, Qianshu Ma, Min Xie, Yunqi Huang, Yunjia Liu, Huan Song, Hongsheng Gui, Mingli Li, Qiang Wang Abstract: Rationale: Bipolar disorder (BD) and major depressive disorder (MDD), as severe chronic illnesses that restrict patients' psychosocial functioning and reduce their quality of life, are both categorized into mood disorders. Emerging evidence has suggested that the reliability of self-rated health (SRH) was wellvalidated and that the risk of various health outcomes, including mortality and health care costs, could be predicted by SRH. Compared with other lengthy multi-item patient-reported outcomes (PRO) measures, SRH was proven to have a comparable predictive ability to predict mortality and healthcare utilization. However, to our knowledge, no study has been conducted to assess the association between SRH and hospitalization among people with mental disorders. Therefore, our study aims to determine the association between SRH and subsequent all-cause hospitalizations in patients with BD and MDD. Methods: We conducted a prospective cohort study on people with BD or MDD in the UK from 2006 to 2010 using UK Biobank touchscreen questionnaire data and linked administrative health databases. The association between SRH and 2-year all-cause hospitalizations was assessed using proportional hazard regression after adjustment for sociodemographics, lifestyle behaviors, previous hospitalization use, the Elixhauser comorbidity index, and environmental factors. Results: A total of 29,966 participants were identified, experiencing 10,279 hospitalization events. Among the cohort, the average age was 55.88 (SD 8.01) years, 64.02% were female, and 3,029 (10.11%), 15,972 (53.30%), 8,313 (27.74%), and 2,652 (8.85%) reported excellent, good, fair, and poor SRH, respectively. Among patients reporting poor SRH, 54.19% had a hospitalization event within 2 years compared with 22.65% for those having excellent SRH. In the adjusted analysis, patients with good, fair, and poor SRH had 1.31 (95% CI 1.21-1.42), 1.82 (95% CI 1.68-1.98), and 2.45 (95% CI 2.22, 2.70) higher hazards of hospitalization, respectively, than those with excellent SRH. Conclusion: SRH was independently associated with subsequent all-cause hospitalizations in patients with BD or MDD. This large study facilitates rapid interpretation of SRH values and underscores the need for proactive SRH screening in this population, which might inform resource allocation and enhance high-risk population detection.

Keywords: severe mental illnesses, hospitalization, risk prediction, patient-reported outcomes

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