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Title:

Medical/Surgical Readmissions in Patients With Co-Occurring Serious Mental Illness: A Qualitative Systematic Literature Review

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ACCEPTED

Session Title:

Rising Stars of Research and Scholarship Invited Student Posters

Slot:

RS PST1: Sunday, 17 November 2019: 11:45 AM-12:15 PM

Applicable Category:

Academic, Students, Researchers

Keywords:

Comorbidity, Medical-surgical readmissions and Serious mental illness

References:

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Abstract Summary:

The objectives of this systematic review were to: (1) provide a synthesis of the literature investigating serious mental illness (SMI) and medical-surgical readmissions in the adult population, and (2) quantify the relationship between SMI diagnosis and medical-surgical readmission rates.

Content Outline:

1. **Objective:** to estimate the relationship between comorbid serious mental illness (SMI) diagnosis and 30-day medical-surgical readmissions.

2. **Methods:**

1. Searched five databases (2012 to 2017) to identify relevant articles on the relationship between SMI diagnosis and readmissions in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)
2. Used the National Institute of Health's Quality Appraisal Tool for Observational Cohort and Cross-Sectional Studies guidelines to appraise studies and assess risk of bias
3. Data were narratively synthesized and a pooled random effects unadjusted odds ratio was estimated using meta-analysis
4. Heterogeneity was investigated using subgroup analysis and meta-regression

3. **Results:**

1. Of the 424 articles remained after removing duplicates, nine met inclusion criteria
 1. All studies were retrospective observational cohort studies
2. Meta-analysis showed that people with SMI have greater odds of readmission than people without SMI (pooled OR 1.38, CI 1.23–1.56, I²= 98.6%)
3. There was heterogeneity in patient cohorts, study methodology, and definition of SMI
4. **Conclusion:** there is a meaningful relationship between SMI diagnosis and medical-surgical readmissions

Topic Selection:

Rising Stars of Research and Scholarship Invited Student Posters (25201)

Abstract Text:

Background: Value-based population care models are replacing traditional patient care and business models to lower costs of patient care and increase value. To motivate hospital and health care systems toward value-based care, the Center for Medicare & Medicaid (CMS) enforced a penalty for hospital readmissions. One subpopulation—patients with serious mental illness—are particularly vulnerable to rehospitalization. We examine the question: When patients with serious mental illness (SMI) enter hospitals for a medical and surgical condition, how do they fare? This study systematically reviews published research evidence that examines the relationship between medical and surgical hospitalizations and readmissions for individuals with co-occurring serious mental illness.

Methods: In accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) we used the following databases: CINAHL, PsycINFO, Web of Science, and PubMed (from January 1, 2012 to December 27, 2017) to identify relevant articles on the relationship between SMI diagnosis and medical/surgical readmissions. We used the National Institute of Health's Quality Appraisal Tool for Observational Cohort and Cross-Sectional Studies guidelines to appraise studies and assess risk of bias. **Data were narratively synthesized and a pooled random effects unadjusted odds**

ratio was estimated using meta-analysis. Heterogeneity was investigated using subgroup analysis and meta-regression.

Results: Our search yielded 424 articles after removing duplicates. Fourteen met inclusion criteria. All studies were retrospective observational cohort studies. A wide range of medical/surgical cohorts were investigated. Study methodology varied with little agreement on the definition of SMI, data sources, medical/surgical diagnoses or demographic/clinical variables. Twelve studies found significant relationships between SMI and readmissions. Two studies did not support the significant relationship. **The meta-analysis showed that people with SMI have greater odds of readmission than people without SMI (pooled OR 1.38, CI 1.23-1.56, I² = 98.6%). There was heterogeneity in patient cohorts, study methodology, and definition of SMI. No significant possibility of publication bias was detected (Classic fail-safe N = 3480).**

Discussion: Our results suggest that patients with SMI have higher rates of medical/surgical readmissions than patients without SMI. Given the prevalence of SMI in patients hospitalized for medical/surgical problems and the heterogeneity of evidence, further research on the relationship between SMI and readmissions is critically needed.