Mental Health Conditions and Medical and Surgical Hospital Utilization

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OBJECTIVE: Mental health conditions are prevalent among children hospitalized for medical conditions and surgical procedures, but little is known about their influence on hospital resource use. The objectives of this study were to examine how hospitalization characteristics vary by presence of a comorbid mental health condition and estimate the association of a comorbid mental health condition with hospital length of stay (LOS) and costs.

METHODS: Using the 2012 Kids' Inpatient Database, we conducted a retrospective, nationally representative, cross-sectional study of 670 161 hospitalizations for 10 common medical and 10 common surgical conditions among 3- to 20-year-old patients. Associations between mental health conditions and hospital LOS were examined using adjusted generalized linear models. Costs of additional hospital days associated with mental health conditions were estimated using hospital cost-to-charge ratios.

RESULTS: A comorbid mental health condition was present in 13.2% of hospitalizations. A comorbid mental health condition was associated with a LOS increase of 8.8% (from 2.5 to 2.7 days, $P < .001$) for medical hospitalizations and a 16.9% increase (from 3.6 to 4.2 days, $P < .001$) for surgical hospitalizations. For hospitalizations in this sample, comorbid mental health conditions were associated with an additional 31 729 (95% confidence interval: 29 085 to 33 492) hospital days and $90 million (95% confidence interval: $81 to $101 million) in hospital costs.

CONCLUSIONS: Medical and surgical hospitalizations with comorbid mental health conditions were associated with longer hospital stay and higher hospital costs. Knowledge about the influence of mental health conditions on pediatric hospital utilization can inform clinical innovation and case-mix adjustment.

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