Substance use-related brief interventions with emergency department patients reduce mental health co-morbidities

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**Background:** Research on screening and brief interventions (SBIs) has shown that, in addition to reducing alcohol use, interventions delivered in healthcare settings can reduce trauma readmissions, hospitalization days, driving offenses, and future healthcare utilization and costs. Mental health co-morbidities often accompany unhealthy alcohol and drug use, but few studies have examined the impact of SBIs on the mental health of patients. The present study determined if SBIs focused on reducing alcohol or drug use affected the mental health status of patients at a six-month follow-up.

**Methods:** Participants (N=1152) were randomly sampled from patients receiving SBIs for at-risk alcohol or drug use after presenting to one of two urban emergency departments (EDs) in Georgia. Telephone follow-up interviews were completed with 698 of the original participants at six months after the intervention. Mental health co-morbidities were measured at both time points using the Global Assessment of Individual Needs Short Screener (GAIN-SS) and the SF12. Analyses were conducted using paired samples t-tests.

**Results:** Analyses found significant reductions in the percentage of patients reporting feelings of anxiety (45% to 33%, p<0.001), depression (52% to 37%, p<0.001), and suicidal ideation (13% to 8%, p<0.001) as well as improvements in global mental health measures (SF12 mental health score and internalizing and externalizing subscales of the GAIN-SS).

**Conclusions:** Six months after receiving SBIs for alcohol and drug use in EDs, several measures of the mental health of participants showed significant improvements. Widespread implementation of SBIs in Georgia's EDs may affect a broad array of public health concerns, including mental health.