Social determinants of health among emergency department patients who screen positive for unhealthy alcohol or drug use: implications for ED SBIRT

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Background

• ED patients have high levels of substance use, and high levels of social determinants of health (SDOH).

• These SDOH could affect success of ED SBIRT programs.

• Yet, little research on SDOH among ED patients with unhealthy alcohol or drug use.
ED-CARES Study

- Emergency Department Patient Characteristics Associated with Risk for Future ED and Shelter Use
  - Prospective cohort study at an urban, public, teaching hospital ED
  - Random sample survey of ED patients will be linked to NYC Department of Homeless Services data to track future shelter use
  - Primary Objective: To develop a brief screening tool to identify emergency department (ED) patients who are at risk for future homelessness and to explore potential models for ED homelessness prevention interventions
Methods

• Bellevue Hospital Center ED
  – Random Sample

Eligible patients:
• Adults (≥ 18 years old)
• English & Spanish speakers
• Medically/psychiatrically stable
• Not in police/prison custody
• Had not already participated
Methods

• RAs administer 20-40 minute survey, containing:
  – Single-item screeners for current unhealthy alcohol and drug use\textsuperscript{1,2}
  – Questions about social needs during the past 12 months taken from previously validated or widely used questionnaires (e.g., USDA U.S. Food Security Survey)

• Compared prevalence of social needs by substance use screening status in bivariate analyses using chi-square tests of independence

Results

• November 18, 2016 – August 20, 2017

• 5762 patients approached
  – 2978 ineligible (51.8%)
  – 2784 eligible

• 2280 participated (39.6%)
  – 2210 unduplicated participants
Results

- **Race/ethnicity**
  - Hispanic/Latino: 55.3%
  - Non-Hispanic Black: 23.2%
  - Non-Hispanic White: 12.2%
  - Other: 9.4%

- **Age**
  - 18-30 years old: 20.6%
  - 31-50 years old: 37.0%
  - 51-65: 30.1%
  - >65: 12.4%

- **Gender**
  - Male: 56.1%
  - Female: 43.5%
  - Transgender: 0.3%

- **Unhealthy alcohol use:** 32.0%
- **Drug use:** 21.5%
Results

• **Unemployed or Unable to Work**
  • Overall: 43.6%
  • Among those with unhealthy alcohol use: 46.0% (p=0.12)
  • Among those with drug use: 56.0% (p<0.0001)

• **Homelessness (including living “doubled up”)**
  • Overall: 21.5%
  • Among those with unhealthy alcohol use: 30.3% (p<0.0001)
  • Among those with drug use: 42.9% (p<0.0001)
Results

- **Inability to Meet Essential Expenses**
  - Overall: 40.9%
  - Among those with unhealthy alcohol use: 45.8% (p=0.001)
  - Among those with drug use: 53.2% (p<0.0001)

- **Telephone Service Disconnected**
  - Overall: 19.5%
  - Among those with unhealthy alcohol use: 23.1% (p=0.009)
  - Among those with drug use: 27.8% (p<0.0001)
Results

• Food Insecurity
  • Overall: 51.0%
  • Among those with unhealthy alcohol use: 56.3% (p=0.0005)
  • Among those with drug use: 63.4% (p<0.0001)
Limitations

• Single center.

• Study might bias toward those who needed the $15 / have a higher level of need.

• Any study that uses a sample of current ED patients will bias toward people who use the ED more frequently.
Discussion

• ED patients overall have high rates of social needs.

• Social needs are even more common among patients who use drugs and, to a lesser extent, those with unhealthy alcohol use.
Discussion

- Findings suggest ED SBIRT programs must recognize patients’ SDOH, which might impact the effectiveness of interventions to address their substance use.
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Side Project: SDOH Registry

• Linkage of patient surveys with SPARCS (NY all-payer healthcare data)

• Effects of SDOH on ED use & hospitalization

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