

Analyzing the Medical History of Homeless Adolescents: An Opportunity to Reduce ED Visits

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Analyzing the Medical History of Homeless Adolescents: An Opportunity to Reduce ED Visits

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Introduction

Limited access to health services and an increased rate of health abnormalities puts homeless adolescents at a greater risk of utilizing the emergency department (ED) for preventable visits. By assessing the prevalence of conditions that cause this population to present to the ED, we set out to identify areas in which interventions can be implemented to mitigate ED visits.

Methodology

This project was a retrospective chart review using a convenience sample of adolescents at a shelter for homeless youth in NE Pennsylvania. The data included 435 patients, ages 11-20 years old, who received a state mandated physical between 2/19/2015 and 8/30/2019. Data extracted included substance use, as well as cardiac, pulmonary, immunological, and psychiatric conditions. The population prevalence of each category was calculated. Sex-specific differences were evaluated using a Chi-Square test of independence, excluding samples of less than N=5. Significance was set at $p \leq .05$

Results

Included in the analysis were 435 adolescents with a mean age of 15.32 ± 1.62 years. In the study cohort, 42.5% (N=185) of the patients were male, 55.6% (N=242) were female and 1.8% (N=8) were transgender. The past medical history of these adolescents included the following: psychiatric condition 54.9% (N=239), pulmonary condition 23% (N=99), cardiac condition 4.6% (N=20), and immunological condition 0.5% (N=2). In regards to substance use, the breakdown was as follows: tobacco use 27.7% (N=120), alcohol use 12.0% (N=52), marijuana use 37.6% (N=163), and other recreational drug use: 9.7% (N=42).

There were no significant sex-specific differences for any past medical conditions or substance use. The Chi-square test of independence comparing males vs. females yielded the following: psychiatric condition $p=0.722$; pulmonary condition $p=0.342$; cardiac conditions $p=0.877$; tobacco use $p=0.833$; alcohol use $p=0.475$; marijuana use $p=0.768$; other recreational drug use $p=0.571$.

Conclusions

Our geographically limited study indicates that sheltered adolescents had the highest prevalence of psychiatric conditions, followed by substance use. Having resources and or interventions for these medical problems in this vulnerable population may defer ED visits. We found no significant sex-specific differences in any of the presenting medical conditions or substance use tendencies.

TABLE 1: PREVALENCE AND SEX-SPECIFIC DIFFERENCES OF MEDICAL CONDITIONS

Medical Condition	Percentage (N)	Sex-Specific Differences (Chi-square test of independence)
Psychiatric	54.9% (435)	$p=0.722$
Pulmonary	23% (N=435)	$p=0.342$
Cardiac	4.6% (N=435)	$p=0.877$
Immunologic	0.5% (N=435)	Not performed due to sample size <5

TABLE 2: PREVALENCE AND SEX-SPECIFIC DIFFERENCES OF SUBSTANCE USE

Substance Use	Percentage (N)	Sex-Specific Differences (Chi-square test of independence)
Tobacco Use	27.7% (N=434)	$p=0.833$
Alcohol Use	12.0% (N=433)	$p=0.475$
Marijuana Use	37.6% (N=434)	$p=0.768$
Other Recreational Drug Use	9.7% (N=434)	$p=0.571$