

## ABSTRACT

- Screening for and early intervention of substance use disorders, especially among youth and young adults, are necessary to promote an individual's mental and physical health longevity.
- The goal of the current study was to examine whether the Alcohol Smoking and Substance Involvement Screening Test (ASSIST) screening tool was able to identify a relationship between violently injured female youth and marijuana use.
- The current study consisted of 414 female participants whose ages ranged from 14-24 and reported to the ED for a violent and non-violent injury.
- The current study concluded that there were no significant findings between participants who reported to the ED for violent injuries and marijuana use, marijuana risk, and the frequency of marijuana use.
- Although the current study was not consistent with current research mentioned in this study, it continues to provide insight in the need of more gender specific tools for screening.

## INTRODUCTION

### Significance of Study

- Substance use among female youth who present to an emergency department for violent injuries plays an instrumental role in their lifestyle trajectory (Bohnert et al., 2015).
- Marijuana use among females can present them with adverse effects that can potentially put them at an increased risk for more frequent ED visits as well as engaging in risky behaviors (Bohnert et al., 2015).

### Purpose

- The purpose of this evaluation is to identify if there is a relationship between marijuana use and violently injured females reporting to the ED for treatment.

### Research Question

- To what extent did the ASSIST screening tool in the ED identify a prevalence in marijuana use among violently injured females ages 18-24?

### Hypothesis

- The ASSIST screening tool will identify a prevalence of marijuana use among females who report to the ED for a violent injury.

## LITERATURE

- A framework that is primarily used to screen and assess for risk factors and issues related to substance use disorder is Screening Brief Intervention and Referral to Treatment (SBIRT) (Mitchell et al., 2013).
- Early intervention in the medical setting may pose better lifestyle trajectories for individuals in their early stages of adulthood and therefore assume better substance use treatment outcomes (Hawk, 2018).
- An individual's psychological well-being during this stage in their life is easily impacted by drug misuse due to their brain not being fully developed and in a vulnerable time of growing (Squeglie et al., 2009).
- Due to this population needing care in an inpatient setting, it is more critical to utilize SBIRT in the ED to help promote the well-being of individuals as much as possible (Roche et al., 2018).
- Stoddard et al. (2015) mentions limitations of this program pertaining to violent and aggressive behaviors due to these individuals presenting to an ED and therefore the sample used was for more serious injuries.
- The purpose of this program evaluation is to increase knowledge related to service delivery and implementation of interventions to substance-using youth presenting to an ED for violent injuries.

## METHODOLOGY

### Research Design

- The current study is a secondary analysis of the data from the Substance Use Among Violently Injured Youth in an Urban Emergency Department: Services and Outcomes in Flint, Michigan, 2009-2013 study, also known as the Flint Youth Injury (FYI) Study (ICPSR number 36769).
- The longitudinal, cohort, and quasi-experimental study focused on quantitative data that was collected from youth presenting to an emergency department (ED).
- The goal of this study was to investigate recent substance-using youth and their relationship with risky behaviors who presented to the ED.
- It was designed to recruit youth ages 14-24 who present to the ED for a violent injury and reported recent drug use within the past six months. There was a comparison group of participants who were included in the study that reported six-month substance use but presented to the ED for non-assault related complaints.
- The ASSIST screening tool was implemented in the violently injured and comparison group reporting recent drug use.

### Sample

- The FYI study recruited their participants from individuals who sought care at Hurley Medical Center (HMC) Emergency Department in Flint, Michigan from December 2009 to September 2013.
- Availability sampling techniques were utilized in the FYI study as only high-risk youth adults between the ages of 14-24 were recruited.
- The sample size of the current study was determined by including all complete responses to questions associated with marijuana use among violently injured young adult females.
- The comparison group was proportionally sampled based on the age group and gender of the participants recruited in the assault-injury group.
- Depending on the answers given by participants, the FYI study designated their answers into three different datasets. Dataset one, which was used in this current study, included 1,444 cases, ages 14-24, which each case represented an individual seeking treatment in the ED (Cunningham et al., 2017).

### Measures

**Independent Variable:** *Violently injured females*

- Question asked: "Was your injury caused by a fight, conflict, argument, or physical attack" (0=no and 1=yes)
- Level of measurement: Nominal

**Dependent Variable:** *ASSIST screening tool*

- Marijuana use: (0=no and 1=yes)
- Frequency of marijuana use in the past six months: (0=never, 2=once or twice, 3=monthly, 4= weekly, 5=daily or almost daily)
- Marijuana risk: (0=no and 1=yes)
- Level of measurement: Nominal

**Demographic Variables/Key Variables:**

- Age: (1=Age 14-17, 2=Age 18-20, 3=Age 21-24)
- Gender: (1=male and 2=female)
- Racial background: (4=African American or Black, 5=White, 6=Multi-Race, and 7=American Indian/Asian/Native Hawaiian)
- Level of measurement: Nominal

## RESULTS

### Descriptive Analysis

- 414 female participants: case group consisted of 353 participants and control group consisted of 61 participants
- Majority of the participants in the case group were young adults ages 18-24, showing a slight increase in ages 18 to 20 (43.6%)
- In the case group, African American or Black, were shown to have the highest frequency compared to the other ethnicities listed with a total of 235 (66.6%) participants.
- The control group's data showed a higher frequency in African American or Black of 31 (50.8%) participants.

*Demographics by Group (N = 414)*

	Case Group n (%)	Control Group n (%)
<b>Gender</b>		
Female	353 (85%)	61 (15%)
<b>Age</b>		
14 to 17	49 (13.9%)	16 (26.2%)
18 to 20	154 (43.6%)	24 (39.3%)
21 to 24	150 (42.5%)	21 (34.4%)
<b>Ethnicity</b>		
African American or Black	235 (66.6%)	31 (50.8%)
White	94 (26.6%)	22 (36.1%)
Multi-Race	20 (5.7%)	7 (11.5%)
American Indian/Asian/Native Hawaiian	4 (1.1%)	1 (1.6%)

*Chi-Square Test Results: Marijuana Use*

Type of Injury	MARIJUANA USE			
	YES		NO	
	n	%	n	%
Violently Injured	148	41.9	205	58.1
Non-Violently Injured	22	36.1	39	63.9

### Inferential Analysis

- A chi-square test was conducted with the use of three dependent variables (marijuana use, marijuana risk, and frequency of marijuana use within the past six months) in order to determine the relationship between violent and non-violently injured participants.
- The test results demonstrated that there was no significant relationship between violent and violently injured participants with the use of the dependent variables.
- There was no association between marijuana use and violent and non-violently injured participants found ( $\chi^2(1) = 0.74, p = 0.39$ ).
- It was determined that the two following variables showed no significant relationship amongst the two groups: frequency of marijuana within the past six months ( $\chi^2(4) = 3.72, p = 0.45$ ) and marijuana risk ( $\chi^2(1) = 0.32, p = 0.57$ ).

## DISCUSSION

### Summary of Results

- The results showed that there was no significant finding between the prevalence of marijuana use among violently injured females who reported to the ED.
- Although the results showed no statistical significance, there were findings of clinical significance such as more injured females reported using marijuana compared to non-violently injured females.

### Interpretation of Findings

- The findings of this current study showed no significant relationship between marijuana use among violently injured females.
- The findings were inconsistent with existing research from Walton et al. (2017) and Stoddard et al. (2015) and indicate that they do not support the hypothesis.

### Implication for Future Research

- More social workers should be trained in conducting SBIRT to better identify client's needs with a diverse lens to understand that there are other differences that may affect an individual's receptiveness to support and their honesty in completing assessments.
- Screening tools and surveys that address non-physical violence are implications for future research to better provide services.

### Strengths and Limitations

- A strength of the study was the intention on trying to identify a prevalence of marijuana use among a vulnerable population such as violently injured youth to better understand service delivery in the ED.
- One important limitation was that the sample represented a small urban city in Flint, Michigan where their racial composition is primary African American individuals.

### Conclusion

- The overall purpose of the study was to determine if the ASSIST screening tool would identify a prevalence of marijuana use among violently injured females.
- The findings of this study were of no statistical significance between violently injured females, marijuana use, and marijuana risk.
- Although the findings were inconsistent with prior research, the ASSIST screening tool can help health care professionals in service delivery in the ED by identifying risk factors and addressing critical needs among high-risk youth.

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