TO WHAT EXTENT DID SCREENING TOOLS IDENTIFY A PREVALENCE IN MARIJUANA USE AMONG VIOLENTLY INJURED MALES AGES 14-24

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ABSTRACT

Adolescents tend to experiment with many risky behaviors during a sensitive period of physiological and social development. Adolescents who report illicit drug use can become more susceptible to injuries that lead to frequent visits to the Emergency Department and more than 400,000 youth ages 14 to 24 seek out E.D. care annually for nonfatal assault injuries. The present study aimed to examine whether screening tools were able to identify a relationship between violent injuries and marijuana use among adolescents. Secondary analysis of data from the Flint Youth Injury (FYI) study was utilized for the current study. The current study consisted of 533 male participants who reported to the E.D. for a violent and non-violent injury. The participants that were included in the study also reported substance use within the past six months. Overall, the study concluded that there was a significant relationship between participants who reported to the E.D. for violent injuries and marijuana use, marijuana risk, and the frequency of marijuana use. This study affirmed prior research, which reported that substance abuse among adolescents can lead to risky behaviors such as physical violence. Additionally, this study affirms prior research that the use of screening tools such as SBIRT should be utilized in routine health care settings so that appropriate referrals and intervention are offered to adolescents that are at risk for substance use. Implication of these findings for future E.D. interventions would not only help decrease substance use among adolescents, but it could also help with decreasing violence that leads to E.D. visits.

Introduction

Significance of Study

- More than 400,000 youth ages 14 to 24 seek out E.D. care annually for nonfatal assault injuries (Roche et al., 2018).
- Adolescents who report illicit drug use can become more susceptible to injuries that can lead to frequent visits to the E.D. (Fahimi et al., 2015).

Purpose

- To determine if screening tools utilized in the E.D. can identify patterns and trends (substance use) among youth who sought care for violent injuries.

Research Question

- To what extent did screening tools in the E.D. identify a prevalence in marijuana use among violently injured males ages 14-24.

Hypothesis

- Violently injured males have a higher rate marijuana use compared to non-violently injured males.

Literature Review

Conceptual Framework: SBIRT

- A public health framework that aims to deliver early intervention and treatment services to individuals at risk of substance use disorders and other mental health conditions (Hargraves et al., 2017).
- SBIRT can be a practical approach among adolescents who receive routine health care to assist with identifying risky behaviors and substance use at an early stage (SAMHSA, 2017).

Prevalence of Substance Use

- The DEA confirmed in 2015 that more than 22 million adolescents were current users of marijuana.
- 1.8 million adolescents ages 12-17 and 6.9 million young adults ages 18-25 reported marijuana use (DEA, 2015).

Violently Injured Adolescents

- Substance use is a risk factor for violence, especially within low-resource and economically challenged urban communities (Carter et al., 2020).
- Adolescents ages 14-24 report to the E.D. annually for nonfatal assault injuries and report high substance use and violence levels (Roche et al., 2018).

METHODS

Evaluation Design & Data Collection Procedures

- The current study is a longitudinal and quasi-experimental analysis that utilized secondary data from the Flint Youth Injury (FYI) study.
- The two-year study followed a cohort that consisted of youth who sought care for assault injuries and reported substance use and a comparison group of youth who sought care for a non-violent injury and reported substance use .
- Participants completed a baseline assessment that took approximately 90 minutes and provided a urine drug screen.
- On the initial screening, participants who reported substance use within the past six months on the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) were enrolled in the longitudinal study

Sample and Sampling Method

- The original FYI study inclusion criteria:
  - Participants ages 14-24 who reported to Hurley Medical Center E.D.
  - Participants who reported for a violent and non-violent injury.
  - Participants who reported substance use within the past year.
- The current study included a total of 533 male participants:
  - 365 participants reported to the E.D. for a violent injury (case group).
  - 168 participants reported to the E.D. for a non-violent injury (control group

Measures

- **Independent Variable:** *Injury Status*
  - Reporting to the E.D. for an injury (cut, bruise, broken bone, muscle strain, etc.) (Y/N)
  - Was injury caused by a fight, conflict, argument, or physical attack (Y/N)
- **Dependent Variable:** *Marijuana Use (cannabis, pot, grass, hash, etc.)*
  - Marijuana use within the past 6 months (Y/N)
  - Marijuana risk (Y/N)
  - How often marijuana was used (Never, Once or twice, Monthly, Weekly, Daily or almost daily)

RESULTS

Descriptive Analysis

- The age groups of participants included three categories: 14 to 17, 18 to 20, and 21 to 24.
- The highest frequency among ethnicity in the case group was African American or Black, which consisted of 201 (55.1%) participants.
- Participants who identified as African American/Black or White, were more likely to seek care for a violent injury.

Table 1

Demographics by Group (N = 533)

	Case Group *n*	Control Group *n*
Gender		
Male	365 (68.5%)	168 (31.5%)
Age		
14 to 17	83 (22.7%)	58 (34.5%)
18 to 20	136 (37.3%)	42 (25.0%)
21 to 24	146 (40.0%)	68 (40.5%)
Ethnicity		
African American or Black	201 (55.1%)	70 (41.7%)
White	119 (32.6%)	83 (49.4%)
Multi-Race	31 (8.5%)	11 (6.5%)
American Indian/Asian/Native Hawaiian	14 (3.8%)	4 (2.4%)

Inferential Analysis

Chi-Square Analysis

- A significant relationship between violent and non-violent injury participants and the three dependent variables was identified.
- Cramer V suggested a moderate relationship between all three variables.
- **Table 2:**
  - A significant association was found between violent and non-violently injured participants and marijuana use: ($\chi 2(1) = 29.51$, $p < 0.01$).
- **Table 3:**
  - A significant association was found between violent and non-violently injured participants and marijuana risk: ($\chi 2(1) = 23.03$, $p < 0.01$).
- **Table 4:**
  - A significant association was found between violent and non-violently injured participants and the frequency of marijuana use within the past 6 months: ($\chi 2(4) = 32.35$, $p < 0.01$).

Table 2

Chi-Square Test Results – Marijuana Use

	MARIJUANA USE			
	YES		NO	
Type of Injury*	*n*	%	*n*	%
Violently Injured	233	63.8	132	36.2
Non-Violently Injured	65	38.7	103	61.3

* $p < 0.01$

Table 3

Chi-Square Test Results – Marijuana Risk

	MARIJUANA RISK			
	YES		NO	
Type of Injury*	*n*	%	*n*	%
Violently Injured	212	58.1	153	41.9
Non-Violently Injured	60	35.7	108	64.3

* $p < 0.01$

Table 4

Chi-Square Test Results – Frequency of Marijuana Use

	FREQUENCY OF MARIJUANA USE				
	Never	Once or Twice	Monthly	Weekly	Daily
Type of Injury*	*n*	*n*	*n*	*n*	*n*
Violently Injured	132	44	22	47	120
Non-Violently Injured	103	6	8	15	36

* $p < 0.01$

CONCLUSIONS

Summary of Results

- The results indicated a statistical significance between male participants who reported to the E.D. for a violent injury and marijuana use.

Implications for Research, Practice, and Policy

- The current study presented with significant findings which emphasized needs for future social work practice.
- Health care settings, especially emergency departments, could benefit from adding more social workers whose responsibility is to focus specifically on screening interventions and referrals for adolescents who report substance use.
- The use of tools such as SBIRT should be utilized in routine health care settings such as doctors' appointments so that adolescents could be automatically be screened by medical social workers.

Strengths and Limitations

- Strengths of this study include the hypothesis as it was accurately represented and helped proved that screening tools were able to identify a prevalence in marijuana use among violently injured adolescent males.
- Limitations of this study conclude that there was a lack of ethnicities that were represented within the data as the racial composition of the study was primarily African American individuals.

Conclusion

- Findings from the study proved that there is a significance between marijuana use and violent injuries, thus creating a need for screening tools in healthcare settings to help identify those who may need immediate intervention such as substance abuse treatment.

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