

ABSTRACT

- Injection drug use is on the rise in the United States, yet research on the impact of safe injection education on preventing injection-related injuries, such as skin and soft tissue infections (SSTI), is limited¹
- The principal objective of this study is to ascertain if video education can improve knowledge regarding sterile technique for intravenous drug use and reduce rates of SSTIs in people who inject drugs (PWID)

INTRODUCTION

- **Syringe service programs (SSPs):** community-based organizations aimed at reducing the harm associated with substance use providing sterile injection supplies, Narcan, screening and referrals to treatment for infectious diseases, etc.
- There is limited data on the impact of education of safe injection on preventing SSTIs and other bloodborne infections in PWID

RESULTS

Safe Injection Education Scores

- Average posttest score was 90.2% correct, which is an increase of 11.4% from the average pretest score of 78.8% ($p = 0.639$)
- Average follow-up knowledge test score from Session 2 led to an overall increase of 7.81% ($p = 0.14$) between the pretest score and the follow-up score
- 100% of the participants that completed Session 2 ($n = 8$) reported no new SSTIs during the study period

Health Behaviors

- 52.2% (12) reported *ever* having skin and soft tissue infections (SSTI) & of those 12 respondents, 50% had an SSTI in the past 12 months
- 52.2% of participants used unprescribed medications to treat their SSTI & 7 of the 12 respondents (58.33%) who reported a previous SSTI required hospitalization and intravenous antibiotic therapy as treatment
- 13 (56.52%) of the 23 respondents reported testing positive for Hepatitis C at some point

Insurance Coverage & Medical Care Access

- 60.9% reported having no insurance coverage, while 21.7% reported having Medicare/Medicaid
- Vidant Emergency Department (now ECU Health Emergency) was the location with the highest utilization of care (45.8%), followed by ECU Physicians and the Bernstein Community Health Center

DISCUSSION

- Our study suggests that PWID tend to have a foundational knowledge of safe injection techniques and show great levels of resilience in self-treatment of SSTIs
- Safe injection education is an important tool in empowering PWID to prevent injection-related injuries and improve clinical outcomes for this population
- As the harm reduction model becomes more accepted in the medical field, educational training for medical personnel should focus on teaching and supporting people who use drugs so the overall threshold for seeking care for infection in this population is lowered and complications and the associated costs are avoided

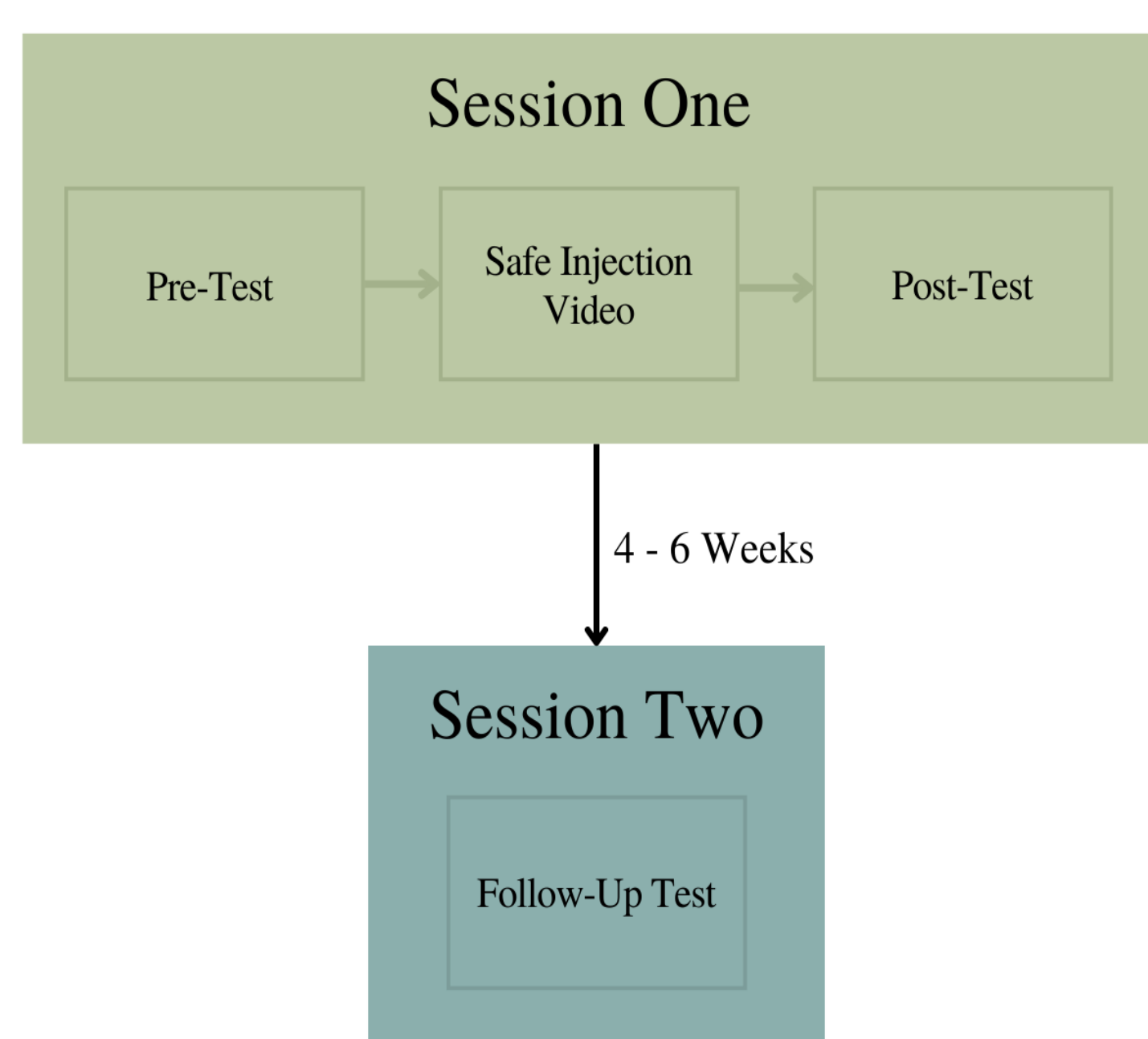


Figure 1. Session Protocols

MATERIALS & METHODS

- Session 1: 23 participants of ekim Syringe Service Program in Greenville, NC were recruited to complete a pretest survey, watch our video on safe injection education, and complete a posttest survey
- Health behavior information was also collected, which included types of drug use, preferred injection sites, history of SSTI, self-treatment techniques, hospitalizations, frequency of Narcan use, Hepatitis C status, insurance coverage, and healthcare access
- Session 2: 4 - 6 weeks following the Session 1, participants were asked to retake the knowledge test and answer questions regarding SSTI occurrences

Pre/Post Survey for Safer Injection

First and Last Initials: _____ Date of Birth: ____/____/____

Education Evaluation

1. What is the **first** step in safe injection?
 - a. Alcohol pad on injection site
 - b. Washing hands
 - c. Using tourniquet (tie) on arm
2. What is the **best** type of water to dissolve the drug?
 - a. Tap water
 - b. Bottled water
 - c. Sterile water
3. What do you do to the injection site **after** you remove the needle?
 - a. Apply a bandage or hold gauze
 - b. Wipe with alcohol pad
 - c. Nothing
4. Where is the **safest** place to inject?
 - a. Legs
 - b. Neck
 - c. Lower arm
5. If you get a **red bump (abscess)** near the injection site, what should you do?
 - a. Keep it clean and use a warm compress
 - b. Squeeze it
 - c. Poke it with needle
6. What should you do if you have **chills, fever, or pain** or swelling near the injection site/abscess?
 - a. Sleep it off
 - b. Ignore your symptoms
 - c. Go to the doctor
7. Should you ever **reuse a needle**?
 - a. Yeah
 - b. No way
8. How should you dispose of needles?
 - a. Sharps container provided by us
 - b. Break off the needle and throw it away in the trash

Behavior Questions

9. What are your drug/drugs of choice? Select ALL that apply.
 - a. Heroin
 - b. Fentanyl
 - c. Cocaine/Crack
 - d. Methamphetamine
 - e. Ecstasy (MDMA)
 - f. Ketamine or PCP
 - g. Other: _____
10. How often have you reused needles in the **last month**?
 - a. None
 - b. 1 time
 - c. 2 times
 - d. 3 or more times
11. Have you had any abscesses (red bumps near injection site) in the **last month**?
 - a. Yes
 - b. No
12. Where do you usually inject?
 - a. Upper arm
 - b. Lower arm
 - c. Hand
 - d. Feet
 - e. Other: _____
13. How many times have you had to use Naloxone on yourself in the **last month**?
 - a. None
 - b. 1 times
 - c. 2 times
 - d. 3 or more times
14. Do you have any chills, fever, pain or swelling near injection sites **today**?
 - a. Yes
 - b. No
15. Where do you usually go to the doctor?
 - a. ECU Physicians
 - b. Physicians East
 - c. PCCC (Pitt County Care Clinic)
 - d. Pitt County Health Department
 - e. Bernstein Community Health Center
 - f. Vidant Emergency Department
 - g. Other: _____
16. Do you have health insurance?
 - a. Yes, through my work
 - b. Yes, Medicare or Medicaid
 - c. Yes, other: _____
 - d. No

Figure 2. Safe Injection Questionnaire

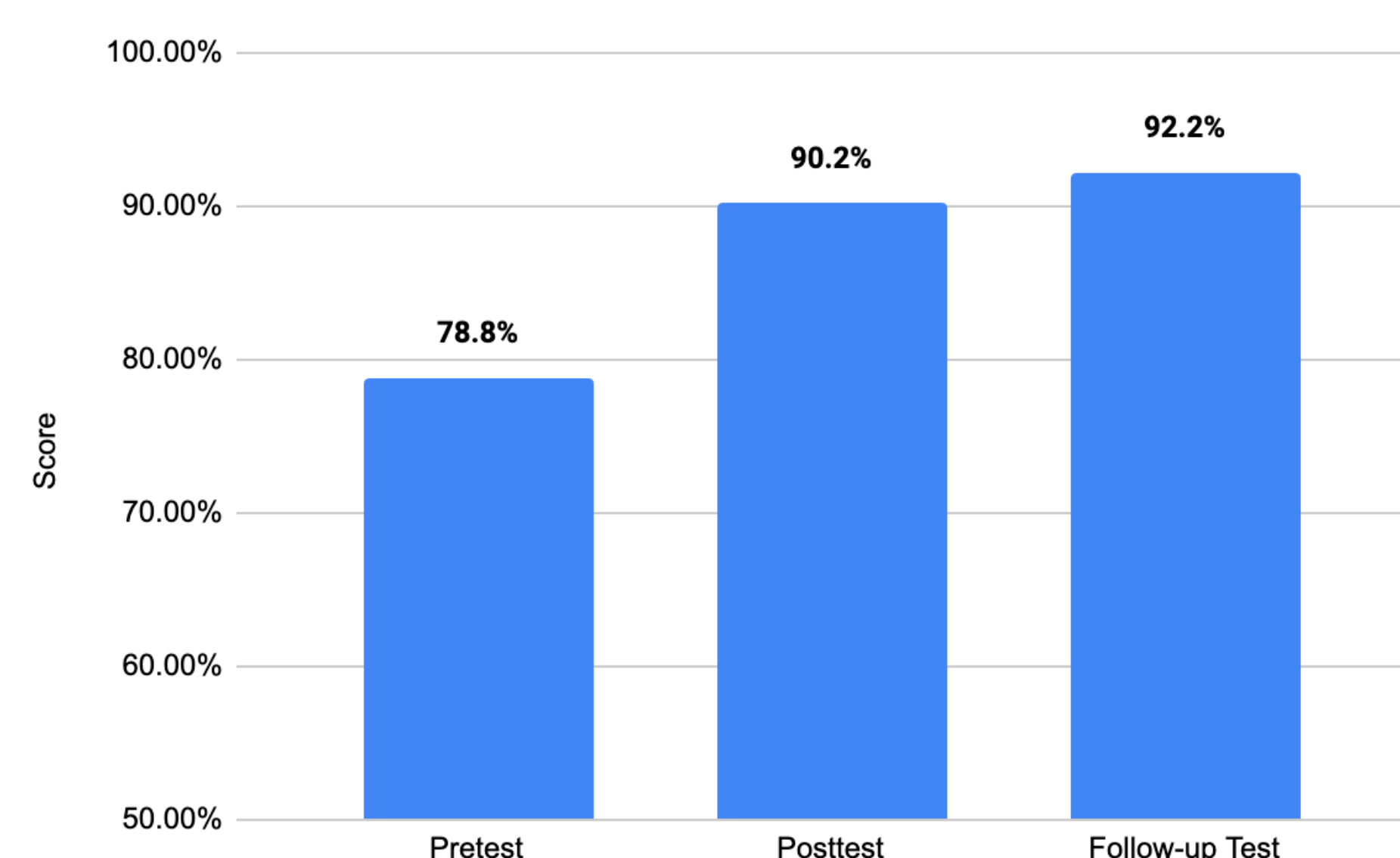


Figure 3. Safe Injection Test Scores

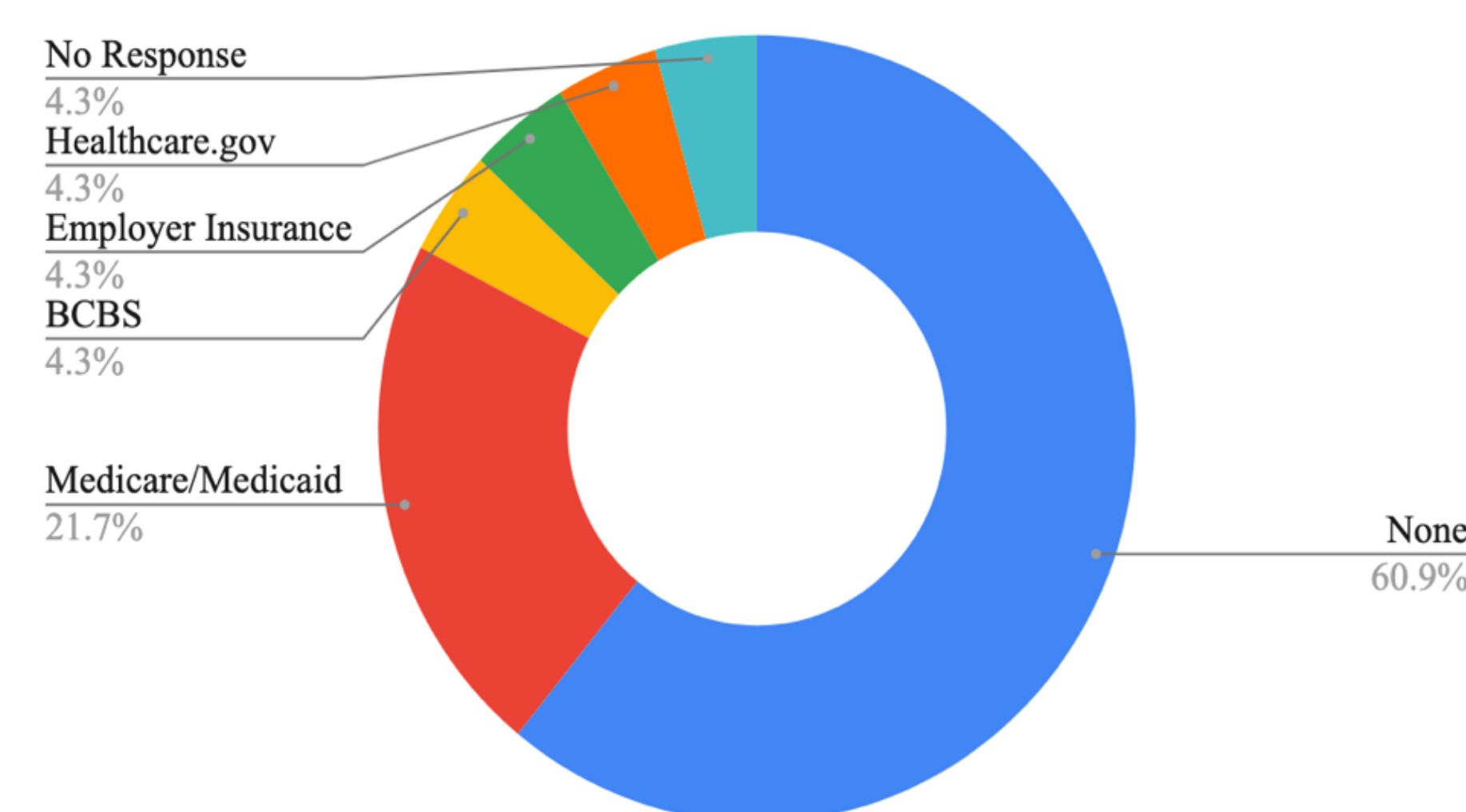


Figure 4. Insurance Coverage of Participants



Figure 5. Safe Injection Video

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