The Effect of Needle Exchange Programs on Blood-Borne Illnesses

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PATIENT CARE ISSUE

Background & Significance

Needle exchange programs (NEPs) have been created in order to help improve the safety of people who inject drugs (PWIDs) and to reduce risk of transmission of blood-borne illnesses. These programs provide PWIDs with clean needles in exchange for used needles.

- The use of infected needles culminates in approximately 5,000 transmissions of HIV each year, and approximately 10,000 transmissions of Hepatitis C (HCV). (5)
- Injecting drugs is responsible for approximately 30% of HIV cases outside of Sub-Saharan Africa. (2)
- In 2011, the estimated cost attributed to the treatment of chronic HCV was $6.6 billion, and is anticipated to rise to $9.1 billion in 2024. (1)

Importance in Nursing

Nurses are advocates for their patients and need EBP-backed treatment options for PWIDs

EVIDENCE-BASED PRACTICE QUESTION

Question: In people who inject drugs (PWIDs), what is the effect of providing clean needles through needle exchange programs (NEPs) compared to PWIDs who do not utilize this resource on the transmission of blood borne illnesses?

P--The population is PWIDs.
I--The intervention is providing clean needles through NEPs to PWIDs.
C--The comparison is PWIDs without clean needle resources.
O--The desired outcome is to reduce the transmission of blood-borne illnesses in PWIDs.

HEALTH PROFESSIONAL INTERVIEW

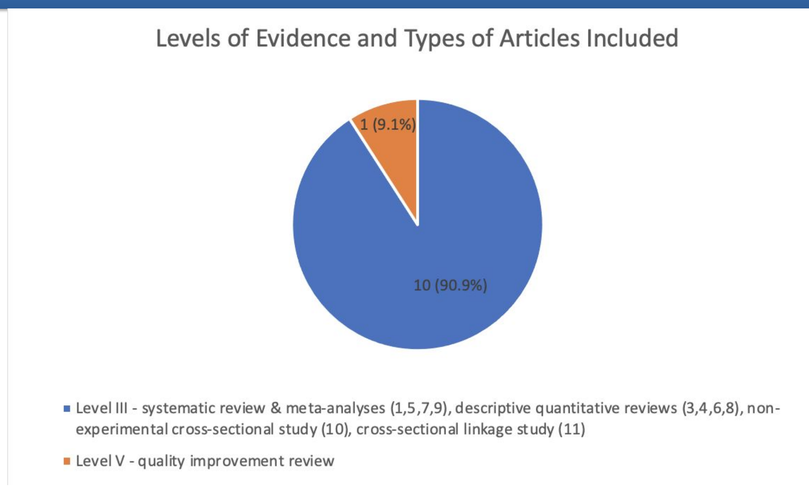
Interview conducted with Greene County Public health educator who works with the Safe Trade program in Greene County

- 70% of her clients are HCV positive; two clients are HIV positive
- Primary goal of this program is not to necessarily decrease the transmission of blood-borne illnesses, but rather to utilize it as a door to provide PWIDs with resources such as counseling
- Provides clients with autonomy and resources for recovery

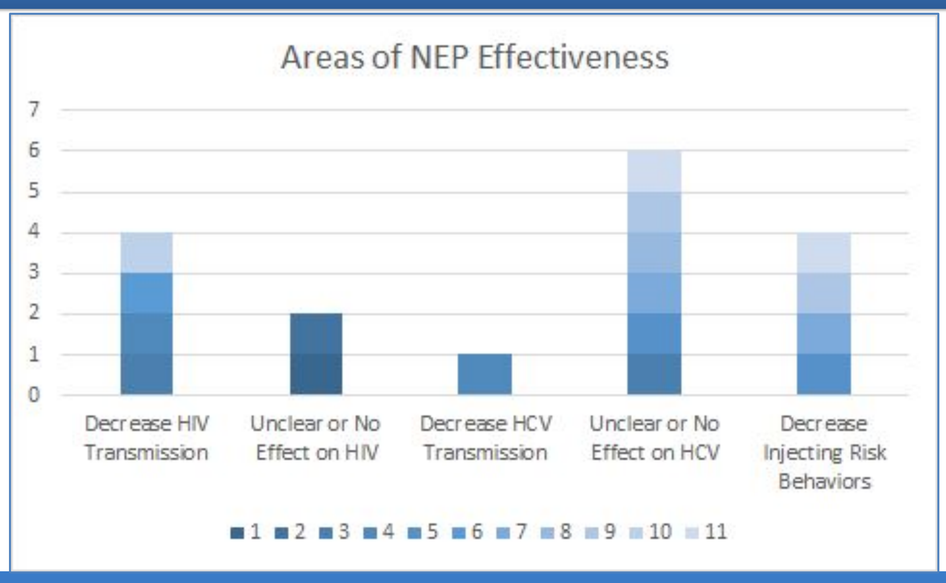
METHODS

Databases utilized: PubMed, Cochrane, CINAHL, MEDLINE, and Health Source
Keywords searched: “needle exchange programs”
Inclusion criteria: The inclusion criteria were articles published within the last ten years, articles written in English, human subjects, full-text articles, and an evaluation/utilization filter was applied to narrow our search range to studies specifically focusing on program use and effectiveness.
Exclusion criteria: Articles were manually excluded if they focused on cost-effectiveness, PWID attitudes toward NEPs, or addiction management

RESULTS



SYNTHESIS OF EVIDENCE



EVIDENCE-BASED PRACTICE RECOMMENDATIONS

Evidence indicates that NEPs are beneficial in reducing the transmission of HIV, however the evidence is inconclusive in regard to its effect on HCV transmission. For this reason, no practice change is indicated, but further research is recommended.

LIMITATIONS

Limitations:

1. Only 2 studies specifically addressed PWIDs in the USA
2. No experimental studies due to ethical considerations
3. Three studies reviewed several different interventions alongside NEPs
4. Cannot account for clean needles provided through non-NEP resources
5. Bias due to the methods of how data was collected (convenience sampling)
6. Different baseline infection status of subjects and small sample size
7. Lack of previous research

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