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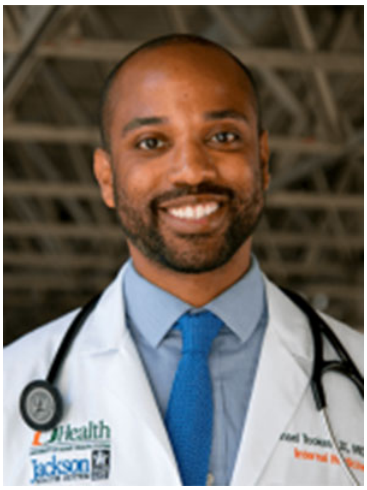
Study Reveals How IDEA Exchange's Distribution Model Affects Injection Risk

A new University of Miami Miller School of Medicine-led study examines the state of Florida's one-for-one syringe distribution policy to see what impact it has had on the behavior of injection drug users. Under Florida law, a person can only receive as many new syringes as they return.



Hansel Tookes, M.D., M.P.H.

The study was conducted among clients of the Infectious Disease Elimination Act (IDEA) Exchange, the first legal syringe service program in Florida.

"The overwhelming evidence is that needs-based syringe distribution is best practice for syringe services programs," said study senior author Hansel Tookes, M.D., M.P.H., founder

of the IDEA Exchange and assistant professor of clinical medicine in the Division of Infectious Diseases at the Miller School. “This study indicates that it is time for our coalition of medical students and community stakeholders to return to the Florida capitol to seek a legislative change for this inferior one-for-one syringe distribution policy.”

The value of increased coverage

Study lead author Tyler Bartholomew, a Ph.D. candidate in the Prevention Science and Community Health Division at the Miller School’s Department of Public Health Sciences, and a group of collaborative experts found that increasing syringe coverage was associated with a decrease in both sharing injection equipment and reusing syringes.

The study also found that clients who reported injecting in public were more likely to share syringes over the study period. Patients living with Hepatitis C (HCV), however, did have significant reductions in sharing injection equipment and reusing syringes over time.

“The ultimate goal of our program is to provide clients low barrier access to enough new injection equipment so that they have a new, unused syringe every time they need one,” said Bartholomew. “This study continues to add to the existing literature that optimizing syringe coverage is important in reducing risk, and we should remove barriers, like one-for-one exchange policies, to ensure all clients have the ability to remain safe and healthy.”

Study methodology

To conduct the study, co-authors used a prospective

observational study design to generate a cohort of 115 syringe services program clients. The clients completed three behavioral assessments during visits to the IDEA Exchange between December 2016 to January 2020, which included collecting sociodemographic and information on injection-related risk behaviors, drug use, and sexual risk. After baseline enrollment, the study collected minimal data at each exchange visit, including the number of syringes disposed of and the number of syringes distributed.

Tyler Bartholomew, Ph.D.

In addition to HIV and HCV testing, the study asked participants to complete follow-up behavioral assessments on a quarterly basis. The primary outcomes of the analysis were whether any injection equipment, such as syringes, needles, cookers, and cottons, were shared in the previous 30 days and whether needles/syringes were reused in that same time period.

Other findings

The study found that 78.4% of the clients from the syringe

service program reported reusing syringes at one-year follow-up, suggesting that providing sterile injection equipment in a one-for-one model may not be sufficient to reduce the reuse of syringes. Reuse of syringes can lead to catastrophic bacterial infections like endocarditis, among many other complications.

Additionally, those who reported injecting in a public location saw a significant increasing trend in sharing injection equipment – suggesting that additional intervention, such as housing and mobile service delivery, may be needed to reduce injection risk behaviors among this subgroup. Those who tested HCV-positive showed a 62% reduction in sharing injection equipment, compared to their HCV-negative counterparts.

When examining sharing injection equipment and reusing syringes, increasing syringe coverage was associated with a 58% reduction in sharing injection equipment and a 21% reduction in reusing syringes. The median syringe coverage at the last follow-up time point was only 39%, which was well below the threshold of sufficient coverage needed to use a new syringe for each injection. Thus, insufficient syringe coverage has been found to be positively associated with syringe reuse. This finding of inadequate coverage among syringe services program participants corroborates previous research from IDEA and expands on the critical role that increasing syringe coverage plays in reducing risk.

The need for state-level reform

This study provides preliminary evidence of reductions in injection-related risk behaviors following implementation of a syringe services program and highlights potential high

priority groups, such as people experiencing homelessness, who may need additional intervention. In addition, improving syringe coverage among syringe services program clients may be an important factor in reducing behaviors that place individuals at risk for contracting HIV and HCV.

With the expansion of syringe services programs in Florida and in the nation, the co-authors note that to further reduce injection-related HIV and HCV risk, policy action must be taken at the state level to reform the state's restrictive one-for-one exchange to an evidence-based syringe distribution policy.
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