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# The Feasibility and Acceptability of a Motivational Interviewing Intervention for HIV-Infected Youth in an Urban Outpatient Clinic: A Pilot Study

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## Keywords

*adherence to HIV medications*; *disclosure of HIV*; *motivational interviewing*; *youth living with HIV*

Youth living with HIV (YLH) are at an increased risk for nonadherence to medications and nondisclosure of an HIV diagnosis to their sexual contacts. Many factors unique to youth contribute to this risk including developmental stage, physical development, and social and cultural issues that surround the disease (D'Angelo, Abdalian, Sarr, Hoffman, & Belzer, 2001; Edberg, 2007; Foster, Waelbrouk, & Peltier, 2007; Shears, 2005). There are limited data for HIV-infected youth regarding how to improve medication adherence and disclosure of diagnosis, how to maintain healthy lives, and how to prevent the spread of the disease in their communities.

In the United States, research is lacking on interventions for YLH and, in the clinical setting, few culturally suitable interventions exist for YLH (Bakeera-Kitaka, Nabukeera-Barungi, Nostlinger, Addy, & Colebunders, 2008). Adherence and disclosure interventions specifically directed at HIV-infected youth are also limited (Blasini et al., 2004; Hosek, Harper, & Domanico, 2005; Rudy, Murphy, Harris, Muenz, & Ellen, 2009). Of the secondary prevention programs that have been developed for YLH, few have been effective in increasing adherence to medications or self-care measures such as disclosure, and others have faced logistical barriers leading to large dropout rates (Lightfoot, Rotheram-Borus, &



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Tevendale, 2007). Health care practitioners, including nurses providing care for HIV-infected youth, are challenged with the task of finding evidence-based interventions to promote self-care that go beyond providing education alone.

Of the few evidence-based interventions used for YLH, motivational interviewing (MI) has been shown to be a promising and appropriate intervention to address behavior change (Naar-King et al., 2009; Rollnick, Miller, & Butler, 2008). MI is a patient-centered and collaborative technique that supports and encourages patients to change behaviors by allowing them to explore their options in a nonthreatening and nonpunitive way. MI does not require complex methods for practitioners or a great deal of time and effort from participants; MI may have fewer logistical and psychological barriers than other programs (Rutledge et al., 2001). MI works well with individuals in the precontemplation and contemplation stages of change, as described in the trans-theoretical model (DiClemente et al., 2008), which may be appropriate for individuals with HIV in the adolescent developmental stage. To date, there have been no published studies using MI with feedback with HIV-infected youth that focus specifically on disclosure and adherence to antiretroviral therapy.

## Methods

This pilot project used a single group descriptive study design with pre- and posttests to determine the feasibility and acceptability of using MI with feedback in a single clinical appointment with a convenience sample ($N = 18$), in an inner city, university-based clinic. The inclusion criteria for the project included participants who were 13–24 years old, had documented HIV infection, and were able to read English and respond to questions on a computer with minimal assistance. Participant exclusion criteria included any severe mental disorder as diagnosed by the attending physician.

Institutional review boards at the University of Virginia and Howard University approved the project. Additionally, a certificate of confidentiality was obtained from the National Institutes of Health to further protect the participants' confidentiality.

Patients were approached to participate in the project during their routine clinic visits or by telephone by a clinician who was not involved in the project. All eligible patients and/or their guardians signed an informed-consent document, a parental consent, and/or a minor-assent document, as appropriate.

The MI sessions were conducted by one individual. Prior to conducting the project, all instruments were piloted with three HIV-infected youth, one in each of the following age categories: 13–16, 17–20, and 21–24 years of age. The data from the pilot were not included in the final analysis, as several questions were reworded or eliminated according to feedback from the participants. Of the 22 potential participants, only one refused to enroll in the project, which resulted in a 95% consent rate. Therefore, although 21 enrolled in the study, the responses of three participants were used for piloting the study questions, and only the remaining 18 were used for the analysis reported here. This resulted in a final sample size of 18. On the day of the intervention, each participant was asked to complete a health literacy survey and three brief computer-based questionnaires using SurveyMonkey prior to the MI session. The pre-intervention Web-based surveys gathered demographic, adherence, and disclosure data.

The MI intervention with feedback was conducted during a 30- to 40-minute office visit, which was the usual length of an office visit at this clinic. During the MI with feedback sessions, we used two validated MI instruments recommended by the Motivational Interviewing Network of Trainers. Immediately following the MI session, data were again

collected regarding participants' attitudes about adherence, attitudes about disclosure, and acceptability of the intervention; in addition, the Client Evaluation of Motivational Interviewing Alternate (CEMIalt) was completed. All surveys were administered on the computer using SurveyMonkey. At the conclusion of the MI visit, each participant received a $10 gift card.

## Results

A total of nine females and nine males ($N = 18$) 13–24 years old, all of whom were African American, completed the study and their data were analyzed. Fourteen of the participants (78%) had been perinatally infected with HIV, two (11%) had been infected between 5 and 10 years of age, one (6%) had been infected for 2–5 years, and one (6%) had been infected for less than 2 years. Sixteen (89%) scored in the adequate range for functional health literacy, and two (11%) scored in the marginal range for functional health literacy.

### Feasibility

The average time to complete the consent form by the participants was 9 minutes, with a range of 6–12 minutes. The average length of time for each visit was 58 minutes, with a range of 36–90 minutes (including time to consent). The MI sessions required minimal supplies for each visit. Two MI worksheets were used in each session to help guide the interview and, other than the MI counselor, no additional staff were necessary to conduct the visits.

### Acceptability

Of the total sample analyzed ($N = 18$), 11 participants (61%) stated they liked the intervention better than a regular office visit and would prefer to have this type of visit in the future. Fourteen (78%) stated that this type of intervention would be helpful to them. Thirteen (72%) stated they would recommend this type of intervention to others with HIV to help with adherence to medications and disclosure of an HIV diagnosis. See Table 1 for specific participant comments related to the MI session.

### Evidence of Efficacy

Overall, four (36%) of the scores for participants' attitudes regarding adherence decreased from pre- to posttest indicating worsening attitudes about adherence, two scores (11%) remained the same, and 12 scores (67%) improved after the intervention, suggesting improved attitudes regarding adherence to antiretroviral medications. The median change in adherence scores, pre- to posttest, was not statistically significant ($p = .08$). Of the scores for attitudes regarding disclosure, four (22%) decreased from pre- to posttest, indicating worsening attitudes regarding disclosure, three scores (17%) remained the same, and 11 (61%) scores reporting attitudes about disclosure increased after the MI session. The median change from the pre- to posttest for the disclosure survey was 1, which was not statistically significant ($p = .12$).

## Discussion

Undoubtedly, the increasing numbers of YLH, particularly among ethnic minorities, present a challenge for nursing. Few clinic-based interventions have been tested and proven effective for YLH. Our study found that an MI plus feedback intervention targeting adherence and disclosure among HIV-infected youth was feasible, acceptable, and promising. The implementation of MI with feedback in a clinic setting is particularly germane for nurse practitioners who provide care to patients with chronic illnesses on a regular basis. It is collaborative and patient-centered, and it incorporates both assessment

and intervention within each session. Furthermore, developing proficiency in MI does not require advanced training in psychology or counseling. However, it does require skill development classes that include practice time for care providers. Our pilot data provide evidence that the implementation of MI with YLH in a clinic setting is feasible and acceptable. Both the pretest and posttest were conducted on the same clinic day to determine if any of the participants' attitudes about adherence and disclosure had changed after a single MI session. This pilot project did not measure these changes over a period of time, which was likely why there was no statistical significance between pre- and posttests; further study is needed to determine if programs such as the one described here can actually improve medication adherence and increase disclosure of HIV status.

### Limitations

Due to limitations of time, resources and the number of available patients in the clinic where the study was conducted, the sample size was small. This most likely contributed to the lack of statistical significance. Additionally, every participant in this project received the intervention; there was no control group, limiting the conclusions that can be drawn. Participants were recruited from a single urban clinic, so the results may not generalize to other geographic or clinic locations. Participants in this study self-reported attitudes about adherence and disclosure, and they may not have been completely truthful. However, some research has shown that computerized surveys may decrease participants' social desirability responses (the inclination to give a socially desirable response) and may encourage more honest answers due to privacy and lack of perceived judgment (Estes et al., 2010). Finally, the surveys used in this project were modified to accommodate the younger participants in the sample and have not been validated for use in this population.

In conclusion, this pilot study demonstrated feasibility and acceptability of motivational interviewing with HIV-infected youth in the setting of a busy urban clinic. The evidence of efficacy for this one-time intervention was not statistically significant. Further studies with larger numbers of patients and a randomized control design are needed to study the efficacy of this intervention.

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**Table 1**

Participants' Comments Related to the Motivational Interviewing Session

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|---|
| " I like how I got to express my feelings and this session made me feel a lot better!!" |
| "I like it because it helped me become more aware of my HIV diagnosis." |
| "I did really like it. It helped me out and I would like to do it again." |
| "I liked this intervention because it helps me speak out more on the thing that I held in and it's a way to know what you are going through." |
| "I like both the motivational interviewing style appointment and my regular medical appointments. Both styles suit my personality." |
| "I like this intervention because it helped me stay on track (with taking medications) and telling others about me having HIV. I would love to do this again." |
| "It gave me a chance to give my side …" |
| "I think that this intervention was very helpful to me. I was able to speak about some of my needs and wants with my health care provider. Now knowing that I am able to speak about most of the things that I am going through, I think that I will be able to get through the process a little easier than I have been able to do in the past." |
| "I really did not like it!" |
| "I don't know why, but I do not like it!" |