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Adolescent HIV Healthcare Providers' Competencies in Motivational Interviewing Using a Standard Patient Model of Fidelity Monitoring

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Abstract

The goal of this project is to describe adolescent HIV care providers' competence in Motivational Interviewing (MI) using a standard patient interaction model of fidelity assessment. Providers (N = 151) at 11 clinics completed monthly MI role plays. The MI Coach Rating Scale was utilized to assess MI skill. Despite mean differences in baseline MI ability by provider type (medical providers, psychologists/social workers, other), when examined together, only clinic had a significant main effect. Aspects of the clinic environment may have a greater impact on providers' baseline MI ability than their job type. Future research should continue to explore these clinic factors.

Keywords Motivational interviewing · Implementation science · Fidelity assessment · Adolescent HIV care · HIV health outcomes

Introduction

With new clinical guidelines, adolescents and young adults living with HIV (YLH) are increasingly initiating antiretroviral treatment (ART), yet rates of adherence to ART are notoriously poor [1]. Medication adherence is a critical component of HIV self-management. Poor HIV self-management has consequences for the health of the individual and implications for public health [2]. A recent review found that Motivational Interviewing (MI) is effective in improving medication adherence and symptom severity in youth with chronic illness [3]. MI has also been associated with improvements in retention in HIV care and reduction in viral load in YLH [4]. MI provides a highly specified framework for improving patient-provider communication and promoting behavior change [5]. However, successfully implementing and sustaining MI can be highly challenging. Research suggests that quality of MI may be inconsistent in practice

[6]. Although studies of MI fidelity in HIV settings are limited, MI-adherent behaviors are consistently linked to positive outcomes [7, 8]. However, the literature on MI fidelity in the context of HIV treatment is in its infancy. Overall, it is critical that studies document treatment fidelity to assess the efficacy of MI-based interventions.

MI fidelity refers to adherence to MI training requirements as well as MI competence. The traditional procedure of fidelity assessment requires external professional raters to code randomly selected sections of recordings of patient-provider sessions [9]. Because obtaining recordings of patient-provider interactions is not always practical in real-world settings, we have developed and tested the efficiency and validity of the MI Coach Rating Scale [10], to rate interactions using a phone-based standard patient interaction model [11] of fidelity monitoring with trained coders.

The current study is part of a larger project with the goal to test a multi-faceted Tailored Motivational Interviewing ("TMI") implementation intervention to scale up MI in multidisciplinary adolescent HIV care settings. As part of this larger project, HIV care providers receive a 12-h skills workshop, tailored for adolescent HIV providers, delivered by members of the Motivational Interviewing Network of Trainers. This is followed by 1-on-1 coaching sessions with a trainer to work toward MI competency. Results presented here describe HIV care providers' baseline (pre-MI workshop or coaching) competence in

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MI using the MI Coach Rating Scale and standard patient model of fidelity monitoring. There is growing evidence linking MI to positive patient health outcomes [7] and increasing interest in MI in health care settings [12]. However, little is actually known about adolescent medicine providers' MI competencies or MI competency in multi-disciplinary HIV clinics.

Methods

The study was approved by the affiliated university Institutional Review Board. All participants provided informed consent for participation. Personnel with direct interactions with YLH or at-risk for HIV at 11 adolescent HIV clinics in the United States were invited to participate, and 151 completed the baseline assessment (range of 9 to 17 per site). Participants were classified by job description into 3 groups: medical providers (e.g., medical doctor, nurse; 38.7%, n = 58), psychologists or social workers (17.3%, n = 26), and other (e.g., health educator, peer counselor; 44%, n = 67).

We utilized a standard patient interaction model of fidelity monitoring using external actors and coaches ("SPs"). Providers completed monthly MI role plays during the baseline period (pre-MI training intervention). SPs were conducted over the phone and lasted 15-20 min.

Measures

A trained independent rater coded the interactions with the MI Coach Rating Scale [10]. The scale includes 12 items assessing MI competence on a 4-point Likert scale (1 = Poor, 2 = Fair, 3 = Good, 4 = Excellent). Examples of scale items included "The counselor cultivates empathy and compassion with client(s)," "The counselor works to evoke client(s)' ideas and motivations for change," and "The counselor supports autonomy of client(s)." Each item was rated based on the full SP and 10% were co-coded to confirm interrater reliability (ICC = 0.63). Mean scale scores were used to reflect MI competence across 4 categories: 'Beginner' (< 2.0), 'Novice' (≥ 2.0 to < 2.6), 'Intermediate' (≥ 2.6 to < 3.3), and 'Advanced' (≥ 3.3). Scores within the beginner or novice categories indicate that additional MI coaching is needed and are typically expected for those new to MI. A score in the Intermediate range indicated that no additional coaching is needed, though the score is not indicative of an expert in MI. A score in the Advanced category would be expected for those highly skilled in MI, including MI coaches and trainers.

Analytical Approach

Descriptive statistics were used to document characteristics of the sample prior to implementation of the intervention. Analysis of variance (ANOVA) was utilized to examine differences in providers' mean MI competency scores. There were no missing data or violations of assumptions.

Results

Baseline mean MI competency scores were relatively low (M = 1.86, SD = 0.45, range 1.08 to 3.42). Providers' mean MI scores corresponded to 65.6% 'Beginner', 27.8% 'Novice', 6.0% 'Intermediate', and 0.7% 'Advanced.' Individual scale items were also explored using descriptive statistics. Providers' mean scores were below 2.0 on 5 scale items: "The counselor uses summaries effectively" (M = 1.06, SD = 0.26); "The counselor uses reflections strategically" (M = 1.25, SD = 0.56); "The counselor reinforces strengths and positive behavior change with affirmations/affirming reflections" (M = 1.44, SD = 0.71); "The counselor demonstrates reflective listening skills" (M = 1.59, SD = 0.73); and "The counselor asks questions in an open-ended way" (M = 1.89, SD = 0.68). Providers' mean scores on the remaining scale items were above 2.0 with the highest scoring item "The counselor fosters collaboration with clients" (M = 2.32, SD = 0.66).

A two-way ANOVA was conducted to examine the effects of provider job classification and clinic affiliation on mean total MI scores at baseline (See Fig. 1). The interaction effect (F (18, 120) = 4.296, p = 0.086) and job classification main effect (F (2, 120) = 0.662, p = 0.122) were not significant. There was a significant clinic main effect on mean MI scores F (10, 120) = 4.594, p = 0.002. Five clinics had consistently higher means scores (means ranged 2.036 to 2.239), 4 clinics had consistently lower mean scores (means ranged 1.608 to 1.740), and 1 clinic was not statistically different from any other site (M = 1.928).

Discussion

Despite the integration of MI into medical training and reports of MI exposure across adolescent HIV clinics, providers had low levels of competency on an objective measure. A majority of providers were within the 'Beginner' range. When looking at individual scale items, providers scored lowest on specific communication skills (e.g., reflections) versus relationship items (e.g., collaboration), suggesting the need for focused training and practice on such

Fig. 1 Two-way ANOVA of MI competency scores by clinical site and job classification
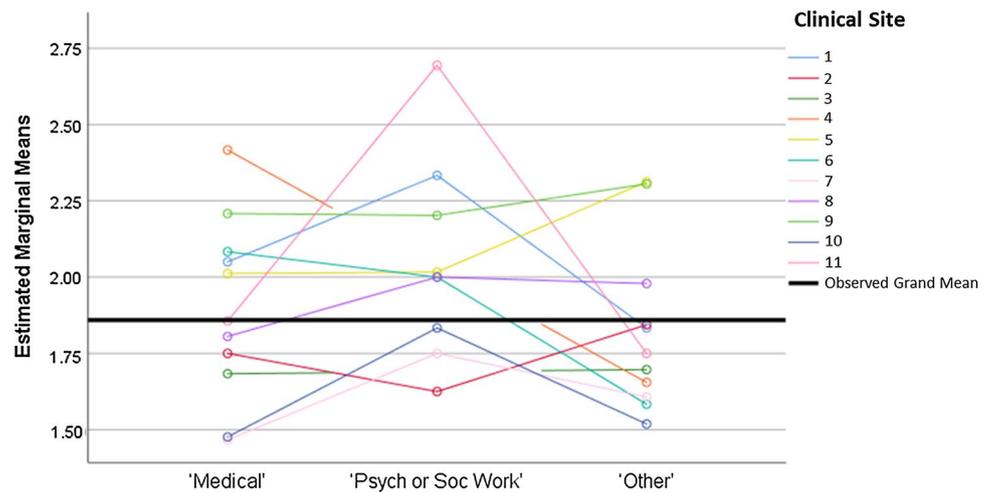
skills. Although psychologists/social workers had the highest overall mean scores, they were still within the 'Novice' range. This suggests MI training is necessary and timely. Despite mean differences in baseline MI ability based on discipline, when examined together, only clinic had a significant main effect. This suggests that aspects of the clinic environment (e.g., acceptance of MI, prior exposure to MI, more uptake and integration of evidence-based practices within clinical standards of care) may have a greater impact on providers' baseline MI ability than their job type (presumably, type of education, and previous exposure to MI).

To our knowledge, this is the first study to explore adolescent HIV care providers' MI competencies across multiple clinics using a standard patient model of fidelity assessment. Further research is necessary to determine the accuracy of this approach compared to real interactions. Future implementation research should also assess improvements in competency following training approaches as well specific clinic factors that may impact MI implementation. The next step is to determine if such improvements in MI competence are associated with improved patient outcomes such as viral load and retention in care [12].

Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

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