



Associations between client and therapist behaviors: Partial validation of the motivational interviewing approach

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Abstract

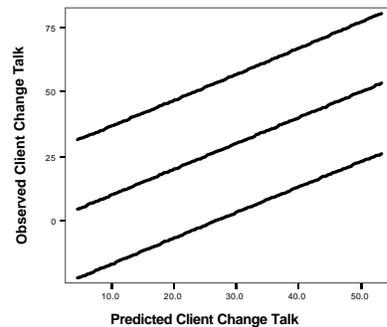
Although the efficacy of motivational interviewing (MI) is well established, few studies have examined potential mechanisms of action within this clinical method. Therapist behaviors consistent with the spirit of this method are thought to be associated with higher levels of client commitment language, which is associated with improved client outcomes in drug treatment. Using a behavioral coding system, the Motivational Interviewing Skills Code (MISC), we examined 367 therapist-client interactions during alcohol and drug treatment sessions. We hypothesized that therapist behaviors consistent with MI (MICO) would be associated with greater levels of in-session change talk and lower levels of resistance and that therapist behaviors inconsistent with MI (MIIN) would be associated with increased resistance and lower levels of change talk. Multiple regression analyses indicated that a global measure of MI spirit, affirmation, emphasizing control, and raising concern were all associated with increased client change talk, as hypothesized. Client resistance was predicted by both MICO and MIIN therapist behaviors. These associations between therapist behaviors and client speech provide partial support for hypothesized mechanisms of action in MI.

Introduction

Motivational interviewing (MI) has been defined as a client-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence (Miller & Rollnick, 2002). One hypothesized mechanism of action for MI focuses on client language during treatment sessions. That is, MI will work to the extent that therapists actively draw out language from the client indicating a need, desire, reason, confidence or intent to change. A behavioral coding system for measuring such client speech has been developed; the Motivational Interviewing Skills Code (MISC; Miller, 2001). This system measures both the client's discussion of change and resistance to it. The present study uses the MISC coding system to investigate the importance of this hypothesized mechanism of action by evaluating speech patterns of clients and therapists in a large dissemination trial of MI (NIDA RO1 DA 13081-02), with the hypothesis that therapist behaviors consistent with MI will be associated with speech favorable to change and, conversely, behaviors inconsistent with MI will be associated with speech resisting change.

Methods

- Data was drawn from 367 audiotapes of client-therapist pairs involved in substance abuse counseling sessions. These sessions occurred within the context of an ongoing research project to test dissemination methods for MI (NIDA RO1 13081-02). Sessions were approximately one hour long.
- Each audiotape was coded using the Motivational Interviewing Skills Code (MISC). The MISC is therapy process coding system designed to capture elements of theoretical interest in the practice of MI. Most ICC values for MISC ratings are in the good to excellent range (Moyers, et al., 2003).
- Therapist attributes are coded in the MISC using both global assessments (capturing overall characteristics) and specific behavioral counts. The global measure for overall adherence to the MI method, for example is captured in the SPIRIT rating, while Emphasizing Control is a specific behavior count.
- Client attributes in the MISC are also coded using global assessments (e.g.COOPERATION). In addition, specific client language of interest to this method is coded. Clients receive a rating for speech indicating potential for change (CT) and another rating for speech indicating resistance to change (RES).
- The initial analysis strategy for this data set involved an exploratory backward regression, in which all therapist variables were used to predict both client change talk and client resistance. All non-significant predictors were removed, yielding a final set of therapist variables which significantly predicted those client behaviors.



Results

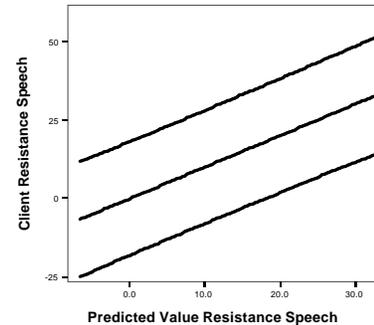
Two Regression Models were tested: One predicting Client Change Talk (CT) and one predicting Client Resistance (RES).

The model for Change Talk was significant, $F(5, 362)=31.56$, $p < .0005$. Adjusted $R^2_{adj} = .293$, $SE = 13.67$

| | |
|-------------------|---------------------------|
| Affirm | $t = 4.136$, $p < .0005$ |
| Emphasize Control | $t = 7.785$, $p < .0005$ |
| Raise Concern | $t = 2.192$, $p = .029$ |
| Paraphrase | $t = 1.850$, $p = .065$ |
| SPIRIT | $t = 1.731$, $p = .003$ |

The model for Resist Change was significant, $F(7, 360) = 13.251$, $p < .0005$. Adjusted $R^2_{adj} = .189$, $SE = 9.21$

| | |
|-------------------|---------------------------|
| Confront | $t = 5.495$, $p < .0005$ |
| Filler | $t = -2.825$, $p = .005$ |
| Personal Feedback | $t = -2.154$, $p = .032$ |
| Self Disclosure | $t = .2158$, $p = .032$ |
| Closed Question | $t = -3.281$, $p = .001$ |
| Rephrase | $t = 2.202$, $p = .028$ |
| Paraphrase | $t = 4.314$, $p < .0005$ |



Figures 1and 2: Observed values as a function of predicted values for client change talk and resistance. Top and bottom lines represent 95% Confidence Interval

Discussion

- As predicted, client commitment language is significantly predicted by both a global measure of therapist adherence to the MI method and by specific behaviors consistent with this method. Furthermore, client resistance could be predicted in these pairs by behaviors proscribed within the MI method (such as confrontation), as hypothesized. These data then, provide support for the stated theoretical mechanisms of action for motivational interviewing and provide direction for training of therapists in this method. Specific guidelines for therapists wishing to elicit client commitment language and avoid resistance are suggested by this data.

Cautions about these findings are in order. Because this analysis was exploratory in nature, it awaits a confirmatory data analysis with an independent sample. Some inconsistency in behavioral measures is noted, particularly that Paraphrase (consistent with MI) is more predictive of client resistance than change talk. This may indicate the general tendency of clients to say more once a reflection has occurred, regardless of content, but it bears further investigation since it appears at odds with hypothesized mechanisms of action for this method.

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References

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