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How Patients with Type 2 Diabetes Mellitus Respond to Motivational Interviewing

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Abstract

Aim—To determine how patients with Type 2 DM feel about a Motivational Interviewing (MI) intervention designed to promote positive behavior change.

Method—Qualitative study using focus groups conducted by the same facilitator.

Setting—Family or general internal medicine practice clinics affiliated with an academic medical center and a community general hospital. One site consisted of primarily low income Hispanic patients.

Participants—Four focus groups consisting of nineteen adult patients with Type 2 Diabetes Mellitus solicited from a large NIH-funded randomized controlled trial on MI and Diabetes.

Results—Across and within group analysis was performed on transcripts of the taped interviews. Patient perceptions of standard care were largely negative, with several individuals describing paternalistic and demeaning attitudes. Five themes related to MI emerged: Nonjudgmental Accountability, Being Heard and Responded to as a Person, Encouragement and Empowerment, Collaborative Action Planning & Goal Setting, and *Coaching Rather than Critiquing*.

Conclusions—Some patients with Type 2 Diabetes are receptive to motivational interviewing which is a provider approach that is more patient-centered and empowering than traditional care.

Keywords

Motivational interviewing; patient satisfaction; patient-provider relationships; self care; behavior change

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No conflict of interest is present between any of the authors and the outcome of the study.

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INTRODUCTION

Patients and healthcare professionals differ in their beliefs and attitudes about diabetes. Most healthcare professionals view diabetes as more serious than their patients [1]. It is thus important to bridge this information gap and form an alliance between the patient and the medical provider. This is where effective communication comes into play.

Health care providers are traditionally trained with a directing style of communication[2]. This style is appropriate in many situations but should certainly not be the only method used to communicate with patients. There are instances in which the provider cannot just direct the patient to decide a specific way, and this is especially true for situations that call for a change in behavior or lifestyle. Oftentimes, we cannot just tell the patient to exercise more or eat less and expect an instant transformation. Whenever a change in behavior is needed, it is crucial to engage the patient's own motivation, energy, and commitment [2]. Despite the wealth of data on improving clinical outcomes in the management of diabetes, there is a paucity of studies that look at patient-centered issues as primary outcomes [3].

Patients generally prefer a patient-centered communication style over a more traditional directive approach [4–6]. Knowing how the patient perceives his or her illness improves adherence and the physician's effectiveness [7]. The issue is further complicated when patients and providers come from different cultural backgrounds with unique expectations and values related to the health care encounter [8].

Motivational Interviewing

Motivational Interviewing (MI) was first described in 1983 to treat health problems with high rates of recidivism, such as alcohol addiction [9]. It is a client-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence. One can summarize the precepts with the acronym RULE: (1) Resist the righting reflex, (2) Understand and explore the patient's own motivations, (3) Listen with empathy, and (4) to Empower the patient, encouraging hope and optimism. It has been successfully used in the treatment of patients with asthma, cardiovascular diseases, dyslipidemia, and obesity, among others. MI outperforms traditional advice giving in the treatment of a broad range of behavioral problems and diseases [10]. In a recent review, MI was found to be more effective than no treatment and generally equal to other viable treatments for problems like substance abuse, reducing risky behaviors, and increasing client engagement in treatment [11].

The success of MI has been attributed to empowering patients, rather than healthcare professionals, with the ability to change behavior. Numerous studies have shown that MI improves glycemic control and A1c, weight loss, well-being, quality of life and increases physical activity and reduces waist circumference and fat intake [12–16].

Despite the many clinical outcome variables measured, however, no study has examined how patients actually feel about traditional approaches which are directive and paternalistic versus one like MI which places the patient in a position of accountability. A study by Miller *et al.* suggests that although patients think that MI is a useful tool, some of them may actually prefer a paternalistic/directive approach [17]. Other studies have looked at the perception of autonomy that patients had after receiving MI [18, 19]. However, to our knowledge, none has systematically investigated patient perceptions of this novel technique and specific aspects that they find helpful. For example, it is not known whether the additional time and attention given as a consequence of MI might produce a beneficial change in patient behavior, nor is it known whether patients are more satisfied with their providers as a consequence of the MI style of communication. Determining what, if any,

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components of this strategy appeal to patients in comparison with standard care is an important insight that will help refine further interventions to help promote behavior change.

Aim

The goal of the focus group discussion was to determine how patients responded to the use of motivational interviewing as a strategy for behavior change and to identify specific strategies they found helpful or not. Subjects were recruited from the treatment group. This focus group was conducted after ~80% of recruitment for the RCT had been completed.

Specific objectives were:

1. How do patients feel about the use of motivational interviewing as a behavior change strategy?
2. Has motivational interviewing prompted any specific behavior changes in patients?
3. How do patients compare motivational interviewing to standard clinical care?
4. What specific MI behaviors are of help to patients?

MATERIALS AND METHODS

A two-year NIH-funded randomized controlled trial (RCT) titled DYNAMIC (Diabetes Nurse Case Management with Motivational Interviewing for Change) was the framework for this smaller study [20]. DYNAMIC involves nurse case mangers trained in MI working with high risk patients with Type 2 DM to facilitate behavior change to improve A1C, blood pressure and LDL cholesterol. The study was approved by the ethics committee of the Penn State Milton S. Hershey Medical Center. All patients provided informed consent before entering the study.

Three experienced registered nurses received four months of training from a multidisciplinary team on Type 2 DM and MI. Techniques for learning MI included classroom teaching, role plays, videoconferencing, journal article reviews, attending conferences and lectures, and mock interviews with standardized patients. They were provided continuous feedback from experts via observations of live performance, feedback from audio and videotapes, and regular standardized analysis by an MI-certified psychologist of taped visits to assure fidelity.

To obtain a diverse sample, an underserved catchment area was included as well as a nurse who was bilingual. After soliciting consent, patients in the RCT were assigned to treatment or control groups. For ethical reasons, the control group was given an assortment of educational materials about diabetes.

An evidence-based protocol was developed for case management of Type 2 DM so the study nurses could work in collaboration with PCPs. The protocol addressed management of blood glucose, hypertension, hyperlipidemia, and depression, and is based on the American Diabetes Association's Clinical Practice Recommendations [21].

Patients were seen at baseline and at 2, 4, and 6 weeks. Thereafter, they had contact with their nurse at a minimum of every 3–6 months, although the schedule was tailored to individual preference as needed. They could email or telephone the nurse as often as needed between visits. The intervention phase of the study lasted two years.

In addition to a standard nursing assessment, the initial baseline study visit included a status report on laboratory values, medication review, exploration of the patient's goals, and

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evaluation of current satisfaction with diabetes management in specific and health status in general. Rapport was established by using a non-judgmental approach, understanding other aspects of patient's life, and active listening. Sessions lasted approximately one hour.

Ongoing visit protocols varied, with safety issues being a priority of all encounters. The study nurses used MI techniques to identify “the agenda” -- which, if any, self-care behaviors the patient would like to change. While all areas of lifestyle change could be discussed, a separate analysis of nurses' notes revealed that emotional distress, medication and nutrition were the most frequent patient concerns.

Participants

To obtain participants for the focus groups, the study nurses approached all individuals in their caseload who had been part of the study for one year. After describing the purpose of the groups, they solicited consent and organized a convenient time and meeting place. Approximately 50% of those approached consented to participate; the most common reason for refusal was lack of time. Two of the groups were primarily Hispanic/low income and the other two were from academic primary care clinics.

Measurement

A Ph.D. prepared counselor with expertise in conducting focus groups was the facilitator for each group. Two groups at each study site (academic and underserved) were held at staggered intervals to permit full participation. All groups were tape recorded.

The interviews began with the prompt: “How has it been for you to be in the study?” Follow-up questions were then asked to elicit patient perceptions on the differences between MI and usual care, focusing primarily on actual changes in behavior. Once the data reached the point of saturation, the groups concluded and the facilitator recorded field notes on specific nonverbal behaviors and other relevant information.

Analysis

The audiotapes were cleaned and transcribed and Interpretative Phenomenological Analysis (IPA) was used for analysis. IPA is a qualitative method for analyzing data based on phenomenology and is intended to uncover how participants interpret and make meaning of experiences. IPA is concerned with individual perceptions as well as how the professional interprets those perceptions. Smith advises that when using focus groups to collect data, the transcripts be reviewed twice: first to look at group patterns and then to analyze individual parallels [22]. Others have proposed that with the right conditions, disclosure may actually be enhanced in focus groups [23].

Four research team members participated in the data analysis. Transcripts were read individually, identifying themes. Next, the findings were compared to see if there was consensus among the results. Finally, to determine if group by group differences might exist, each group was analyzed as an individual unit and then results between groups were compared.

RESULTS

A total of 19 participants contributed to the focus groups. All had Type 2 DM and had been in the DYNAMIC study for one year. Specific demographics of this cohort are as follows:

- 10 male, 9 female
- Ethnicity

- 10 non-Hispanic white
- 8 Hispanic
- 1 African American
- Average age of 62.1 years

Based on the iterative analysis described previously, five themes emerged which captured the response of the focus group participants, regardless of the group they were in. The themes identified were: Nonjudgmental Accountability, Being Heard and Responded to as a Person, Encouragement and Empowerment, Collaborative Action Planning & Goal Setting, and Coaching Rather than Critiquing (Table 1). To make meaning of the emotional impact of the patient perceptions and maximize the power of IPA, we compared and contrasted these themes to what the team understood as "standard practice" in diabetes care, as did the patients when providing responses. That is, often patients would compare the care they received from DYNAMIC to the usual care they had received before being recruited into the study.

Nonjudgmental Accountability

Patients felt that in contrast to standard care where they received negative feedback (guilt provoking, nagging, shaming) from both family and health care providers in an attempt to coerce them into taking responsibility for their diabetes, the MI intervention encouraged them to be responsible for their own care. In this way, they disclosed more openly and also took ownership of the lifestyle changes they needed to make in order to be healthy. They recognized that physicians, nurses, and family members could not "force" them to change their behavior.

Being Heard and Responded to as a Person

Many of the patients felt that their physicians were unable to listen to them or engage in a dialogue due to time constraints. They were more at ease with the nurse because of how they approached them and paid attention to them during their visits.

In one situation, a patient actually began to monitor her blood sugar for the first time because after a conversation with the DYNAMIC nurse it was realized the lancet was set incorrectly, causing pain. With a readjustment, the patient was able to begin monitoring without undue discomfort. This occurred because the nurse had time to discuss the patient's failure to monitor and listen to the reasons why the patient had stopped.

Encouragement and Empowerment Through Empathy

While patients didn't accuse their primary care physicians of a lack of empathy, one did note that being "treated like a child" was humiliating. The patients felt that the nurses understood what they were going through and so they were more receptive to the nurses' comments and suggestions.

Collaborative Action Planning & Goal Setting

Patients felt that their relationship with the DYNAMIC nurses was a partnership rather than one where they were in the receiving position and the provider handed down mandates. In this way, patients were empowered with information to make their own decisions and set realistic goals with the nurse as a resource. When patients struggled with self care, seeing the DYNAMIC nurse often helped them reestablish priorities.

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In one instance, the patient said: "She emailed me a bunch of items and she said, `What were you interested in?' I said, `I think I need just a refresher on nutrition.'" This patient then ended up attending a two-session class on nutrition at the medical center.

Coaching Rather than Critiquing

Patients were quick to point out the limits of standard care, frequently noting that their relationships with physicians felt paternalistic and rushed. In contrast, the DYNAMIC nurses offered them guidance and support and did not dictate to them what they should do.

DISCUSSION

The findings of this study suggest that high risk patients with Type 2 Diabetes Mellitus are receptive to provider approaches which are more accommodating to their unique needs, even if these do not necessarily match the physician's or nurse's objectives. As more emphasis is placed on communication and relationships, techniques like MI hold significant promise. The tension to accomplish a checklist of tasks during a relatively brief office visit must be balanced with the futility of trying to coerce patients to change. Surprisingly, there was a synergy of results between four diverse groups of patients, further supporting the validity of these findings.

Remarkably, there were no negative comments about the MI intervention. This could be due to selection bias, i.e. those who felt positive about the intervention chose to participate in the focus groups. However, even outside the focus groups, no participant in the bigger DYNAMIC study expressed negative feelings and attrition due to the intervention was less than 10% of all attrition.

MI is a method that can be used in spirit during traditional care. It may be used by providers from diverse disciplines including medicine, nutrition, and social work. One approach that can be used during a typical patient encounter is OARS – using Open-ended questions, Affirm the patients to build self-confidence in their ability to change, Reflective listening, and Summaries [24]. The patients understood that the DYNAMIC nurses had the luxury of time. However, as can be seen throughout the themes, time was just one factor that influenced the treatment group response.

It is important to note that prior to starting the DYNAMIC study, the nurses trained in MI for 4 months and received ongoing feedback throughout the duration of the study. Audiotaped sessions with the study patients were reviewed biweekly to ensure MI fidelity. The current study's results, therefore, may not be applicable to interventions where training in MI is delivered through a short course. Indeed, it has been found that participation in a one-time clinical workshop is unlikely to change behavior sufficiently [25]. Another limitation is the lack of quantitative data at this preliminary point in the study. Information on demographic variables such as duration of diabetes and other biomedical data could enrich these findings.

Although objective outcomes involving hard data such as A1C levels and health care costs will be calculated at the conclusion of the DYNAMIC study, these preliminary findings may be more important. The responsiveness of patients to an innovative technique supports the efficacy of motivational interviewing, which may be the most compelling reason to implement it more widely in primary care settings challenged by the complex needs of chronic patients.

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Table 1

Themes that emerged from the focus groups

Theme	Exemplar	Traditional Care
Nonjudgemental Accountability	"Taking responsibility for it [diabetes]…I find it very beneficial and very supportive. It isn't that you get any revelations of things you don't do, but it just keeps you on track."	"The doctor is going to give me hell about something."
Being Heard and Responded to as a Person	"… when I'm sitting there with [the nurse] she's looking me straight in the eye, like this with me, like she comes into the conversation and she does that thing and I do know it's my responsibility." "She has schematics or papers on certain areas that you know she wants to address and she will explain it very explicitly. This is what you have to do."	"You can't ask a doctor. I mean you could, but they don't understand, and they don't have the time." "Like, there's a sign on the door that says you know have your feet checked each and every time if you're a diabetic. It's been a year and I haven't had my feet checked one time by the doctor. I mention it and he'll say: `next time.'" "… it's stressful and you get very agitated and don't want to deal with people anymore `cause no one is listening to you."
Encouragement and Empowerment Through Empathy	"…she is always encouraging and it's a difficult disease to manage and I get little help at home so having some help somewhere, I'm grateful for it." " [she] then just works along with you and just like opens your eyes and you can actually see what she's saying and get it." "And she's very reassuring. Everything that she explains to you. It's not the end."	"I have a great physician, Dr. X., and he's been patient with me but I do get out of hand so coming to [nurse] has probably been the best thing for me and I think although I love Dr. X and he knows that I do I don't think he sees it from my point of view…. For some reason I respond better to her input than I do him even though they say the same…."
Collaborative Action Planning & Goal Setting	"..we'll work together to set goals, <u>together</u>, and I find that very helpful." "I found meeting with the nurse and having the discipline to sit down, discuss things, get a game plan got me back on track."	"One of the things I asked her for I heard Byetta and I thought: `Oh my gosh' and I talked to Dr. X and he said: `No.' I go to her and she said well you know what and she listens and she'll still go to bat for me.."
Coaching Rather than Critiquing	"It's in the way she presents it…it's kind of a laid back manner, not standoffish or a lecture. And it works." "She's the one that keeps me motivated." "She's very positive about everything you know she doesn't come down on you. And I appreciate that because I guess I've been pretty angry from the beginning that I even have it"	"You can't ask a doctor, I mean you could but they don't understand, they don't have the time." "And as an adult you want to be treated as an adult not as a child that you don't know what you're doing."