Reflections on Incorporating a Behavioral Intervention into a Busy Pediatric Subspecialty Clinic

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INTRODUCTION

Pediatric diabetes is a condition that requires a tremendous amount of self-care and investment on the part of patients and families. It involves checking blood glucose values multiple times per day, counting carbohydrates, calculating insulin doses, and taking an insulin injection (or pump bolus) with every meal. It is not uncommon for patients to feel burned out and decrease the intensity of their diabetes care, particularly during the teenage years (Hood et al., 2014). There are many reasons why this can occur—for example, lack of acceptance of diagnosis, fatigue with the process and work involved, feeling discouraged because of erratic blood glucose levels despite good effort, or simply not wanting to be told what to do as an adolescent. Worsening glycemic control is rather common during adolescence and can lead to acute complications, such as diabetic ketoacidosis or severe hypoglycemia, as well as increased risk of long-term complications such as retinopathy, nephropathy, peripheral neuropathy, and cardiovascular disease (Rollo et al., 2014). Helping patients establish good diabetes care in childhood and adolescence can decrease the risk of serious diabetes-related complications later in life.

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MOTIVATIONAL INTERVIEWING AND TYPE 1 DIABETES

In contrast to standard medical communication, motivational interviewing (MI) is a style of communication designed to foster increased partnership and collaboration between the health care provider and patient (Miller & Rollnick, 2013) by emphasizing the importance of the caring relationship in health care communication and eliciting the patient's own ideas and reasons for change. Previous studies on MI in the pediatric diabetes population have shown mixed results (Channon et al., 2007; Wang et al., 2010). Channon et al. carried out MI sessions in a nonclinical setting, and the number of sessions and locations were decided by the participant. The control group also received additional support outside of the clinical setting but did not receive MI. The interventionist training involved videos, workshops, role-playing, and individual supervision. The study did not focus on adolescents at risk for poor glycemic control, because there was no hemoglobin A1c level criterion for inclusion in the study. In the study by Wang et al., patients with poor glycemic control (A1c level ≥ 9%) were randomized to the MI group or a control group receiving additional education. The training involved a 2-day workshop, reading an MI manual and journal articles, and guidance from an MI trainer. Certified diabetes educators conducted the MI sessions. It is not clear whether the first session took place during routine clinic visits or as separate study visits; however, the authors indicated that the follow-up MI sessions took place by phone. What remains to be determined is whether MI is feasible and effective when deployed for adolescents with Type 1 diabetes (T1D) in the context of routine diabetes clinic visits (Channon et al., 2007). We describe a clinical trial of MI that was deployed in a busy diabetes clinical network, with the intervention delivered during routine diabetes clinic visits; we also report challenges faced by the study team, interventionists, and participants on the basis of feedback obtained from semistructured and informal interviews conducted with interventionists, research coordinators, and ancillary clinic staff.

STUDY DESIGN

Our study team is currently completing a randomized controlled trial to explore the potential impact of MI on glycemic control, self-efficacy, and quality of life among adolescents with poorly controlled T1D. Adolescents whose most recent hemoglobin A1c level was at least 8.5% qualified as *poorly controlled;* the target A1c level among this group is 7.5% or less (Chiang, Kirkman, Laffel, Peters, & the Type 1 Diabetes Sourcebook Authors, 2014). MI was compared with treatment as usual (standard provider communication, which is primarily information-based and didactic, with the provider as the expert and the patient as the passive recipient of medical information and advice). A total of 82 participants enrolled in the study, nine of whom withdrew before completing all study visits. At present, 70 patients have completed the study, and three patients are still participating. Of the 73 active participants, 35 were in the control group and 38 were in the treatment group. The participants were randomly assigned to either the treatment or control groups. Those in the treatment group received two structured MI sessions during their routine clinic visits, followed by two standard clinic visits. Those in the control group had four standard clinic visits.

The goal of the current study was to evaluate the effectiveness of MI that has been carried out entirely in the clinical setting, during routine diabetes clinic appointments, for adolescents with poorly controlled T1D. Study patients were assigned to treatment groups randomly using the Monte Carlo method: a four-group randomized block procedure assigned two control patients and two MI patients in a randomly generated, balanced block. The focus of the MI sessions was adherence to the treatment regimen and the personal benefits of improving glycemic control. The control group in this study did not receive any additional support or education beyond usual diabetes care. We also involved a variety of members of the multidisciplinary care team to incorporate this intervention, including physicians, nurse practitioners, and diabetes educators. Our project presented unforeseen challenges that can provide important information for our own future efforts in this area and for the efforts of others who attempt to incorporate MI, or other humanistic communication, into clinical practice. The focus of this report is to describe the implementation of MI in a busy clinic setting, highlighting the challenges encountered, to guide future efforts.

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INTERVENTIONIST TRAINING

Before the MI sessions, the interventionists received a total of 24 hours of training over several days in a series of MI workshops. This began with 16 hours of training in general motivational interviewing, which involved didactics, live and video demonstrations, and structured practice. Next, interventionists received 8 hours of training focused on this specific intervention. An intervention manual, created by the first and third authors, was used as a guideline for how to structure the conversation, with a target range of 25–40 minutes.