

## Training Teen Mothers as Motivational Interviewers A Feasibility Study

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### Abstract

When teen mothers do not graduate from high school, they and their children risk a lifetime of negative outcomes. They face major economic and health difficulties, often repeated across generations. To address this growing national concern that particularly impacts Hispanic teen mothers, we began by training young nonprofessional peer mentors in motivational interviewing (MI) to provide one-to-one support for teen mothers. To our knowledge, young non-clinicians have never before been formally evaluated for MI competency. Our preliminary investigation tested whether teen mothers who had succeeded in graduating could use MI effectively in conversations with their peers who had not yet completed high school. The six peer mentors were able to attain basic competency in MI. Some of their demonstrated skills went beyond competency to MI proficiency as measured by the MITI coding system. They also expressed their enthusiasm for the experience. They fully participated in the study protocols and also maintained the spirit of MI throughout the study. These findings are being used to design a training strategy for the peer mentors that can be used in schools and clinics throughout New Mexico. The question we asked was: "Can these young mothers, who have succeeded in graduating from high school, competently use MI to support other teen moms to continue their education?" The answer in this feasibility study was "yes".

### Keywords

*Community-Based Participatory Research; adolescent parenting; peer mentors; competence in Motivational Interviewing; telephone coaching*

New Mexico has one of the highest teen birth rates in the nation. In 2010, the state teen birth rates were 53 births per 1,000 females ages 15-19 years compared to national rates of 34 births per 1,000. Only Mississippi had a higher teen birth rate than New Mexico. Although US teen pregnancy and birth rates have declined consistently in the past ten years, teen births in New Mexico are not declining at the same rate as teen births across the United States. For example, between 2000 and 2007, New Mexico's birth rate to mothers ages 15-19 did not decline at all, while the national teen birth rate declined 10% (Kids Count Data Center, 2013). There are also disparities in the distribution of teen births by racial and ethnic groups. Approximately 66% of all teen births in New Mexico were to Hispanic mothers in 2012 (Adolescent Birth Counts, 2013).

Nationally, pregnancy and birth rates for Hispanic teens have remained high and reductions in rates have been lower than those for the

teens overall (Kids Count Data Center, 2013). Teen birth rates for non-Hispanic white females are much lower than those for Hispanic females (22 births per 1,000 females ages 15-19 years compared to 50 births per 1,000).

New Mexico also has one of the highest percentages of teens who neither are attending school nor are high school graduates (Kids Count Data Center, 2013). Hispanic teen mothers are also less likely to earn a high school diploma, which further puts them and their children at higher risk for other poor health, social and economic outcomes (Klerman, 2005; Perper, Peterson, Manlove, 2010). In the US overall, the percentage of teens 16-19 years who are not in school and not high school graduates is higher for Hispanic teens compared to non-Hispanic white teens (11% vs. 5%) (Kids Count Data Center, 2013). Thus, Hispanic teens are an important high risk group to target for interventions that reduce pregnancy rates, improve parenting skills and increase school attendance.

A new way to study and address complex health and social problems employs community-partnered approaches. This alternative research paradigm is called Community Based Participatory Research (CBPR). CBPR is an orientation to research that is collaborative, capacity-building and recognizes the unique strengths that each partner brings to the process (Minkler & Wallerstein, 2008). For this study, we worked side-by-side with the young parent community to develop a research approach using MI that would be tailored to this specific community. Their input was important as we identified potential topics, designed the practice exercises and handouts, and developed the discussions. This approach fits well with the spirit of MI.

When teen mothers graduate from high school, a broad spectrum of health and economic outcomes improve, not only for themselves, but also for their child (Klerman, 2005). Our long term goal is to develop a teen mother peer support program that can be used in schools and clinics

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throughout New Mexico. A peer mentor is an experienced person close to the same age who can provide information, advice, support, and encouragement to a less experienced person, often guiding by the example of her success. Arguably, the unique challenges and barriers that teen mothers face in order to attend school and receive academic credit can be best understood by a peer mentor who has had similar experiences.

This paper reports on a feasibility study focused on the development of motivational interviewing (MI) skills in peer mentors for teen mothers. MI training was chosen because it is a method that can be standardized and replicated. Findings from this study will be used to design an effective training strategy for the peer mentors.

## MI by Peer Mentors

MI is an evidence-based practice that has been used in a variety of settings (Britt, Hudson & Blampied, 2004; Madson, Loignon, & Lane, 2009; Rubak, Sandbaek, Lauritzen, & Christensen, 2005). Miller and Rollnick (2013) define it as a collaborative conversation to strengthen a person's own motivation and commitment to change. It is designed to guide toward a specific goal by eliciting and exploring the person's own reasons for change, goals and values within an atmosphere of acceptance and compassion.

With adolescents, MI has been effective in motivating healthy behavior change in substance use and dietary choices (Erickson, Gerstle, & Feldstein, 2005; Gray, McCambridge, & Strang, 2005; Mastroleo, Turrisi, Carney, Ray, & Larimer, 2010; Resnicow, Davis & Rollnick, 2006; Tollison et al., 2008). MI has also been used in studies of repeat pregnancy in teens. In one study, the interactions between adult paraprofessionals trained in MI and teen mothers were associated with a reduction in subsequent births for the adolescents (Barnet, Liu, DeVoe, Alperovitz-Bichell & Duggan, 2007; Barnet et al, 2009).

In the literature on MI with adolescent clients, the preponderance of studies used adult clinicians as interviewers. Only one study used peer outreach workers (age 20-25 years old) to interview young people (Naar-King, Outlaw, Green-Jones, Wright, & Parsons, 2009). The researchers found that the peers were as effective as traditional mental health clinicians in delivering MI, and in some cases, more effective in competency and outcomes. In this study, our peer mentors were between the ages of 18-22 years, with a mean age of 20 years. Thus, we incorporated younger peers to train in MI. We recruited these peers because they were close in age to the teen moms, and because they, too, had given birth while adolescents.

## Purpose

The purpose of this study was to determine whether peer mentors could be trained to be competent in the use of MI methods. To accomplish our goal, we provided training and coaching in MI to a group of potential peer mentors and assessed their competence in the practice of MI during support visits with volunteer teen mothers enrolled or attempting to enroll in school. We also identified behaviors of peer mentors and components of the MI training that led to attainment of basic competency in MI.

## METHODS

### Participants

All study activities took place at the University of New Mexico, in Albuquerque, New Mexico. Teen mother high school graduates were recruited to participate in the study. They were then hired as peer mentors through UNM temporary services. Initial job interviews incorporated a work sample/role play to allow the hiring team to determine if applicants had a

communication style that was consistent with the non-confrontational, collaborative tone of MI. Eight young women applied and all were hired. However, two of them were unable to complete the MI training, leaving six who were then trained in MI, as well as in ethics and boundary issues. The six peer mentors completed the training and all study activities. The peer mentors were between the ages of 18 and 22 years, with a mean age of 20 years. There were four white Hispanic peer mentors, one African-American, Hispanic peer mentor, and one African-American non-Hispanic peer mentor. The mentors had either one or two young children and were either employed or enrolled in college.

Teen mothers who were enrolled or attempting to enroll in school were recruited as study volunteers. The study manager (S.J.) recruited teen mothers from Women, Infants, and Children (WIC) clinics and UNM Hospital and clinics, assisted by UNM and WIC staff. Each participating teen mother received a \$20 gift card to Target for each support visit with the peer mentor. Informed consent was obtained from both the teen mother and her parent if she was a minor. The volunteers were paired with the mentors based on the convenience of their schedules, so although most mentors met with a variety of volunteers, there were also repeated visits with a specific volunteer.

### Performing the Support Visits

Each peer mentor met with a volunteer teen mother four times, once a month for four months. The support visits occurred at a university office that was both private and convenient. During each visit, the peer mentors used MI conversations about educational goals with the teen mothers. Each visit was audio-recorded for use in coding the visit for fidelity to the MI model. Audio recordings used identification numbers for individuals; no personal identifiers were recorded. The recordings were sent for evaluation and coding through secure encrypted files. The study manager (S. J.) coordinated the visits between the peer mentors and teen mothers, collected the audio tapes for evaluation and coding, and supervised all study activities.

### Motivational Interviewing Training

The training of the peer mentors in MI was completed in four half-day sessions in the span of one week by C. Y. Monday morning included an introduction to the spirit and processes of MI plus exercises with values. Tuesday's agenda reviewed relevant research, such as the findings of Naar-King and colleagues (2009). Wednesday morning used video demonstrations with debriefing that invited the mentors' feedback about the adaptability of what was demonstrated. Thursday's agenda was guided practice in the skills and discussion about how best to integrate them. On Thursday, the mentors completed anonymous evaluations of the training. The four training sessions were video recorded.

### Coaching and Feedback

The peer mentors received on-going feedback and coaching for the four months following the training sessions. The purpose of ongoing feedback and coaching was to enhance the performance of the peer mentors as they applied MI in their sessions with a volunteer. The coach was able to comment positively on effective performance and offer specific suggestions for increasing reflections and open questions. Systematic practice and reinforced practice are empirically grounded learning aids to ensure that the peer mentors became competent in the practice of MI (Miller, Yahne, Moyers, Martinez, & Pirritano, 2004).

Each peer mentor received a coaching/feedback session over the telephone after each support visit. During Round 2 of the visits, C.Y. coached in-vivo. She was physically present in the interview room and provided coaching and reinforcement during the session. She supervised each peer mentor's progress using the audio recording and coding sheet.

In the coaching/feedback sessions, the peer mentors and their coach reviewed the transcripts together. The coach clarified MI-consistent and MI-inconsistent responses and role-played with the trainee.

**Coding the Support Visits**

Secure encrypted audio files of interviews were sent to a coding specialist, Dr. Denise Ernst, for evaluation. All interviews were de-identified. A random 20-minute segment of the interview was coded. Coder comments and feedback were written on the coding sheets. Completed coding forms were returned within one week to the trainer for coaching and feedback.

The coding system, Motivational Interviewing Treatment Integrity (MITI; (Moyers, Martin, Manuel, Miller, & Ernst 2010) was revised by Miller and Rollnick (2013, page 400). The MITI was originally developed by teams at the UNM Center on Alcoholism, Substance Abuse and Addictions (CASAA), and is the current gold standard in the field (Moyers, Martin, Manuel, Hendrickson & Miller, 2005; Moyers et al., 2010; Pierson et al., 2007). The MITI is a behavioral coding system that can be used to provide feedback to increase clinical skill in the practice of MI. The MITI is intended to be used: 1) as a treatment integrity measure for clinical trials of MI and 2) as a means of providing structured, formal feedback about ways to improve practice in non-research settings. The coding system produces global ratings: evocation, collaboration, autonomy/support, direction, and empathy. It also includes behavior counts: giving information, MI adherent behavior, MI non-adherent behavior, closed questions, open questions, simple reflections, and complex reflections. The following summary scores are computed: global spirit rating, reflection to question ratio, percent of open questions, percent of complex reflections, and percent of behavior adherent to MI. Benchmarks for basic competency and proficiency in MI as measured by both behavior counts and global scores are provided on page 400 in Miller and Rollnick (2013).

**Evaluation of Training Activities and Exit Interviews**

Process data were also collected to evaluate the peer mentors' impressions of the training activities. This was done at the end of the training using a written questionnaire. Exit interviews were also completed with both the teen mentors and the teen mother volunteers at the end of the study. The questions for the peer mentors focused on feelings about being a peer mentor, suggestions for changes in the training, and feelings about the support visits. For the teen mother volunteers, the questions focused on their feelings about the support visits and their peer mentor. All exit interviews were conducted by S.J., the study manager.

**Statistical Analysis of Data**

This feasibility study used both qualitative information from structured interviews combined with a quantitative measure of adherence to MI to inform our development of a critical intervention method. We collected data on process measures that included the number of potential peer mentors who were approached, the number agreeing to apply for the position, the number hired, and the number attending the MI training and coaching sessions. We also tracked the number of teen mothers who completed the support visits and the number of peer mentors who completed all of their support visits.

Results from the MITI for all of the peer mentors were summarized, and those peer mentors achieving competency were identified. Peer mentors were scored and evaluated after each support visit to determine whether they achieved basic competency of >90% MI consistent rating and a global rating average of 3.5 with the revised MITI evaluation tool.

We analyzed the Evaluation of Training Activities Questionnaire completed by each peer mentor in order to identify areas that should be

improved or changed for the development of the larger intervention study. The information from the structured interviews with the peer mentors and teen mother volunteers was also used to assess the overall success of the approach and to identify areas for revision.

**RESULTS**

**Motivational Interviewing Competency**

The MITI specifies two levels of skill thresholds: basic competency and proficiency. The peer mentors were able to attain basic competency in MI, and some of their demonstrated skills went beyond that to MI proficiency as measured by the MITI (Figure 1).

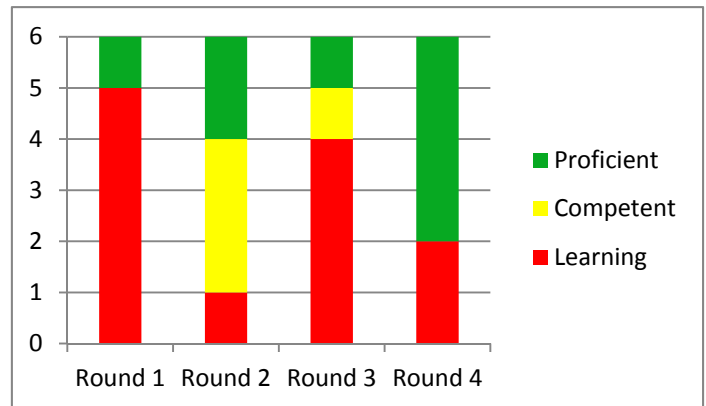


Figure 1: Global Ratings

All six peer mentors struggled to use reflections more than questions (Figure 2), and to use open questions more than closed questions (Figure 3). They grasped the skill of forming complex reflections (Figure 4). Their ability to incorporate the spirit of MI was consistently excellent in that they used a collaborative and empathic tone with their interviewees. They did not resort to MI non-adherent behaviors such as confrontation or scolding (Figure 5). They evoked the values of the interviewees regarding the importance of education, despite the challenges of parenting.

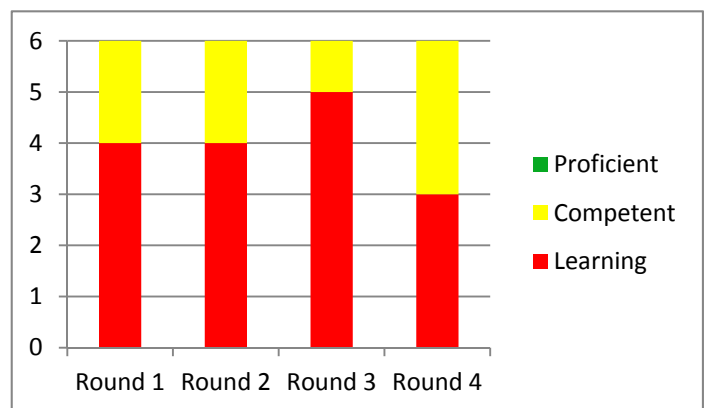


Figure 2: Reflection to Question Ratio

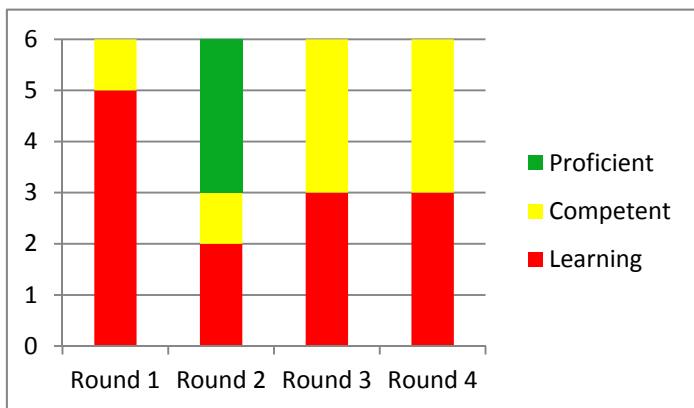


Figure 3: Percent Open Questions

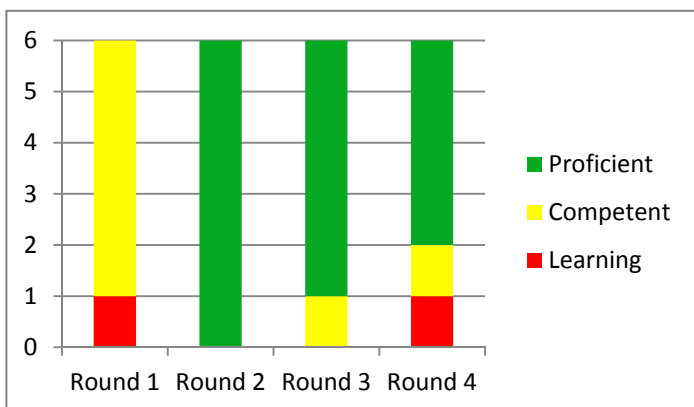


Figure 4: Percent Complex Reflections

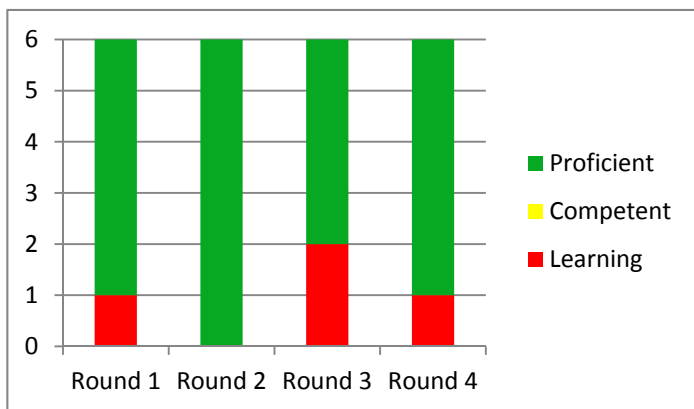


Figure 5: Percent MI Consistent

### Participant Interviews and Feedback

In their evaluations of the training, participants gave the highest possible score to the importance to using the skills. They felt ready to use MI, although they all indicated they needed more practice and more self-confidence. They especially liked the demonstration examples, the practice exercises, the handouts, and the discussions. They were less enthused about the research review.

Exit interviews with the peer mentors and the teen mother volunteers showed that all of the participants viewed their experience positively. Specific questions the project manager (S.J.) asked trainees during the exit interviews and characteristic responses given included:

- “Did you receive enough MI training to do this project effectively?”
  - ❖ “We did (in the support visits) what we practiced and learned.”
  - ❖ “Yes. I learned so much. I use it in everyday life now. So I’ve taken an interest. I’d like to learn more.”
  - ❖ “I liked learning what to do to give them (the teen moms) the confidence to open up and talk about what they wanted, goals and stuff.”
- “Did you receive adequate support during the project and sufficient feedback about your MI performance?”
  - ❖ “I liked hearing comments about what I did right and wrong.”
  - ❖ “I kept going because I got feedback that I was doing things right. It helped me to know what I did well and what I need to work on.”
  - ❖ “The role playing and examples of change talk were very helpful.”

There were two benefits to the mentors: they felt satisfied by helping other teen moms, and also they felt proud of themselves for learning a professional skill and being accountable for improvement in their MITI scores. All six of the mentors fully participated in all parts of the study, including interviews, meetings, and MI coaching.

The teen mom volunteers enjoyed talking about their educational goals with a supportive peer mentor. They felt affirmed about their goals and attitudes. They also admired the mentor’s academic achievements, and liked to compare their academic track with what the mentors had accomplished in similar circumstances. Teen mother volunteers said: “I like sharing my story. It’s nice for someone to be interested.” and “Talking with a good role model makes me want to do better.”

## DISCUSSION

Graduating from high school is an important target behavior for young women who become pregnant as teenagers. This preliminary investigation tested whether teen mothers who had succeeded in graduating could use MI effectively in conversations with their peers who had not yet completed high school. To our knowledge, young non-clinicians have never before been formally evaluated for MI competency. The six young women who completed the MI training expressed their enthusiasm for the experience. They fully participated in the study protocols and also maintained the spirit of MI throughout the study. They all report being interested in continuing with the developing project and serving as mentors to new teen mothers.

The question we asked was: “Can these young mothers, who have succeeded in graduating from high school, competently use MI to support other teen moms to continue their education?”

The peer mentors’ practice recordings indicated some variability. However, the mentors achieved basic competency in most of their interviews, and most were able to achieve proficiency in some of their practice samples. The in-vivo coaching during the second practice session, with the coach physically present during the interview, produced the most proficient interviewing behavior.

A strength of this study was the use of an expert trainer, coach and coder, which allowed for fidelity checks and quality assurance. The data analysis was also reviewed and graphed by an expert. Limitations of this initial study included the small sample size (n=6) and only four opportunities to practice after the initial training session.

Generally, MI training of practitioners is done in a two day workshop. The decision to schedule the training over four mornings rather than over two full days was felt to be a useful change for both the trainer and the trainees. It allowed the energy levels to remain high. It also allowed for the peer mentors to successfully meet the demands of parenthood while participating in MI training.

Coaching and feedback methods can either be done in person or over the telephone. It was important to test the effectiveness of telephone coaching with this population, as it is the most convenient and cost effective method. The telephone coaching for this study included discussing the scores from the MITI coding as well as role plays about ways to strengthen specific skills. For example, if the MITI scores indicated few reflections, the role play telephone practice focused on forming complex reflections and getting out of the "question/answer trap". Feedback from the trainer and the mentors revealed that the phone coaching was effective, and the mentors did improve their MITI scores using this method of communication with the trainer.

In addition to the telephone coaching, the second round of coaching was in-vivo. In this round of interviews, the trainer was immediately available, rather than coaching after the fact. With the trainer being present in the room during the second practice session, she was able to coach the peer mentor in forming more open questions and more reflections. The peer mentors expressed their appreciation for her presence and saw it as positive rather than intrusive. Scores were also higher during this round of coaching. Future studies will further examine coaching strategies in order to attain the best results with the most feasible methods.

Timing of the interviews and evaluation were a result of the logistical realities of the study. The monthly support visit and feedback/coaching schedule are interesting because it can be viewed in two ways. Due to budget constraints, this was an acceptable protocol for the study, but it is not likely that a MI trainee would use the techniques so infrequently in actual practice. On the other hand, the fact that the mentors did so well with such infrequent application of MI is very encouraging for their future use of this approach. Through this feasibility study, we have gained valuable information that we can use to develop culturally competent methods for the long term goal.

Our research approach of using the key principles of CBPR also contributed to the success of this feasibility study. Since the young parent community was involved in the process from the beginning, there was great interest in our positive outcomes. One key principle of CBPR is that it facilitates collaborative partnerships in all phases of the research. We observed this when the peer mentors and other young parents also stated that they would be willing to participate in additional studies as we continue to design a teen mother peer support program.

## CONCLUSION

Various programs to increase teen mothers' educational attainment have been documented (SEDL, 2011; Wilson, Tanner-Smith, Lipsey, Steinka-Fry & Morrison, 2011). Our project differs from other programs because we are training young non-professionals in MI in order to support teen mothers' educational advancement. From our review of the literature, we concluded that this has not been done before. The mentors were evaluated on their MI skills four times, with a month separating each coded session. The fact that they attained basic competency, and sometimes went beyond that to MI proficiency, is notable. These were not the typical practice sessions available to adult clinicians already established in practice, yet the mentors achieved success and enjoyed the process. Their success is encouraging for our continued development of the project and its subsequent research steps.

Our advancement of MI research with these young non-professionals holds promise for our larger goal of increasing educational attainment by teen mothers. A peer mentor may have an advantage over an adult professional clinician in her credibility and rapport with a teen mother from her same community. Another benefit is that the mentors, young parents themselves, gain flexible employment, experience and valuable skills during the process. The mentors not only achieved skillfulness in MI, but have maintained their interest in participating in the next steps of the project beyond this feasibility study.

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