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# Session: Testing Three Strategies for Implementing Motivational Interviewing on Medical Inpatient Units: See One, Do One, Order One

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# Heidi: And now I would like to introduce our speaker. Joining us today we have Dr. Steve Martino. He’s the Chief of Psychology Service at VA Connecticut Healthcare System and a Professor of Psychiatry at Yale University School of Medicine. So at this time, Dr. Martino, I’m going to give you the pop-up to share your screen. Perfect.

Dr. Steve Martino: Okay. Well, thank you very much for inviting me to talk about this study that we’ve recently completed. This is an implementation pilot trial, to some extent, in which we tested three different strategies for examining how to best implement motivational interviewing in an inpatient medical setting. And so we refer to this as the See One, Do One, Order One study, and I’d like to take this time to go through it and see what you think. I also want to acknowledge my Co-PI. When I edited the slides, I inadvertently took her name off. I was going to move it elsewhere and then I realized I never put it in again, so Kimberly Yonkers is also a Professor at Yale and is very involved in consultation liaison and inpatient psychiatry and she deserves as much credit, or more, for this study than I do.

This was funded by NIDA, and the next slide, the team. It’s a large team of people involved in making this all possible, from the Yale New Haven Hospitalist Service where this was conducted, the CL Service participants, the cost effectiveness component of this study by Todd Olmstead, qualitative interviews and focus groups done by Joy Kaufman, our Statistician, as well as several research staff involved in making this all possible. So I want to thank them for their dedication to this trial. And I also want to say that I have no financial or other conflicts of interest to report, related to this presentation.

So I thought we’d begin for me to get a sense of who is on the call. If you could, I think this is where I turn it over, take the poll and indicate which category thus indicates who you are.

Heidi: Thank you. So we do have the poll up on the attendee’s screen. So go ahead and click the circle right there next to your response. We’d like to know what your primary role in VA is. I understand that many of you probably wear many hats in the organization, so please select your primary role. At the end of the presentation, we’ll have a more complete list of job titles on our feedback survey that you can choose from, so you might find your exact one there. All right, we’ve got a very responsive audience, 80% response rate. So I’m going to go ahead and close this out and share those results. It looks like 4% of our respondents selected student, trainee, or fellow; 26% clinician; 37% researcher; 13% administrator, manager, or policy-maker; and 20% other. So thank you again to those respondents. And Dr. Martino, you’re going to get that pop-up one more time.

Dr. Steve Martino: Okay, thank you. All right, so we have a nice [inaudible 3:24] people on the call, and hopefully each of you will find something in this that will be pertinent to the role that you’re in.

So the background for this study is that general medical hospitals are certainly a place where patients are being admitted who are experiencing abuse or dependence upon various substances. And this group of individuals are often the individuals with the poorest medical and substance use outcomes and they are often the most costly to treat within hospital settings. And as we all know, motivational interviewing is a well-recognized approach for treating substance abuse disorders and that it has been applied in healthcare settings. And the literature has also shown through multiple trials that it can be taught to a broad range of healthcare clinicians, including the use of brief interventions. It is commonly done for screening and brief interventions and referral to treatment.

So integrating substance use interventions like MI into medical settings could improve health outcomes and reduce healthcare costs. But the key question for me was, well, how would we best go about trying to implement some type of substance use intervention that would lead to efficient, proficient, and cost-effective uptake of an approach such as MI, and in this case, doing it in a general medical setting like a medical inpatient unit.

So for implementation framework, in order to guide the way in which we constructed the strategies, we really chose to, kind of the pan framework and look at what were some common principles that we thought would most apply to busy medical inpatient units. And one of the things that was very clear, having worked in these settings and knowing a lot of colleagues who do so as well, is that whatever we do it better be simple. There are so many complex tasks occurring within the settings and so we needed to strive for simplicity. And secondly, whatever strategy we choose, we really needed to work hard to make it compatible with the ways in which medical professionals on medical inpatient units are typically working. So this became our guiding principle in developing the three different strategies.

And so the first strategy we refer to as See One. And this is your traditional CME seminar or workshop. This is a one-day training experience that we are referring to as training as usual. This is very commonly done for all types of medical skills and knowledge, and so that became, in some ways, our control condition.

The Do One condition is the workshop, but we also provided, after the workshop, some bedside feedback and coaching of the medical provider’s use of MI live. And so this is a very common modus operandi in medical education for centuries, literally, and it also parallels a competency-based supervision training approach that is often used to train people, in general, in psychotherapeutic or counseling approaches. So we viewed this approach as compatible with the medical setting practice but not necessarily so simple to arrange for the bedside feedback and coaching. And they had two opportunities to receive the bedside feedback and coaching at the beginning of the trial, and then they had the opportunity to ask for additional bedside feedback and coaching at any point. And we prompted them as well mid way when you see what the design is.

And then finally, the Order One condition was that the medical providers would get a workshop and then they, in addition, had the option of putting an order in the medical record for the consultation liaison service to provide the motivational interview to patients who they deemed as benefitting from it. They could do a motivational interview themselves, but they didn’t necessarily have to do it. And so this was the strategy that we felt would be most simple and compatible with these settings. And placing orders or consults is so commonly done for any specialized type of approach that falls outside one’s expertise or scope of practice. So those are our strategies.

This is the setting in which we implemented this trial. This is Yale New Haven Health System. It is a huge health system. We did this in one site in New Haven, Connecticut. There are roughly about 10 medical inpatient units that the hospitalist service provides service to, and there are about 10,000 or more inpatient medical admissions per year to this hospital. So it was a good place in which to try this out. And like many medical centers, it is super busy. And so we were glad that we selected strategies that we thought would have a chance at being able to bring in some addiction treatment to the medical unit.

So the type of design of the study is a Hybrid Type 3 Effectiveness-Implementation trial. In our design, we planned to randomize 30 clinicians to one of the three conditions. And the original intent was to focus on physician assistants, so you’ll see how that changed over time. We were trying to keep as much internal control to the trial while trying to do it in as much of a real-world way as possible. So they were randomly assigned, and then the patients would be admitted into the medical inpatient setting. And here is where we made a decision to try to, again, make this very generalizable. So our research assistants would screen patients as they were being admitted, and we would determine who was eligible for the study and then consent those who were interested in participating. I’ll go over the criteria in a moment.

The providers were unaware of who we consented, the ones that were participating in the study. And then they would be admitted in the hospital and then they would be naturally assigned to providers. And those were the individuals that we would track within the hospital. So again, the providers are blind to who has a substance use disorder, meets criteria for that, and their task is to try to identify those people that they’re seeing and then choose to do a motivational interview. So each of these clinicians had 40 opportunities of a patient with a substance use disorder assigned to them, to identify and provide a motivational interview. And our target sample for sufficient power for this study was 1,200 patients. So they’re clustered within the clinicians.

These are the assessments that we included in the study. And so we, in short, gathered information on the clinician demographics and experiences. We tried to get a sense of what the climate for implementation was on the units through this nursing work index that was revised. We evaluated our trainings. We tapped into the beliefs that the providers had about motivational interviewing. We had a knowledge questionnaire, other motivational rulers for clinicians.

Our main outcome was the percentage of MI uptake on the units. We also looked at the integrity in which the clinicians used motivational interviewing, using the independent tape rater system, which I will show you in a moment. We also, in this trial we did not follow the participants because it’s more of an implementation trial focused on the success of the implementation strategy. What we chose to do is rate the recorded sessions for client language that is predictive of behavior change, so client change talk and percent of client change talk was our proxy for client outcome. And then we had qualitative interviews that we did both before the trial and at the end of the trial with the clinicians.

For patients, we had to determine whether or not they were cognitively intact enough to participate in a talking treatment and to be able to consent in the study. We used NIAAA guidelines as well as CAGE questionnaire for initial screening, Heaviness of Smoking Index, timeline follow-back, the mini for alcohol and drug use to get at diagnosis. We looked at addiction severity, motivation scores, the PHQ-9, the SF-12, and we did some medical record reviews.

So the primary AIM was to assess the uptake of motivational interviewing by clinicians on the medical units. Our hypotheses were both that Do One and Order One would result in a higher percentage of MI interviews being conducted within the first 40 consecutive study-eligible inpatients that we had identified.

And then our primary aim two was that both of those conditions, when compared to See One, would result in a greater level of integrity of the implementation of MI on the medical inpatient unit.

And then we, again, were looking at in-session percent change talk. And we also were looking at themes related to the implementation facilitators and barriers occurring both before and retrospect in this study.

So we began with key informant interviews and focus groups with hospital administrators. We met with clinicians before the trial and immediately, again, and after the workshops for the clinicians, I should say. We wanted to understand how they dealt with substance misuse, what screening practices they used, what they felt they needed training in, to get their sense of how they typically intervene and refer, and then use all of this information to adjust our strategies. We also, of course, needed to get buy-in and establish somewhat of a functioning internal facilitator and champions. We needed to develop our research methods, certainly, for identifying all these patients coming in and having the resources to screen people efficiently. And of course, we had to ensure that the MI order placed in the Epic System would work well, and of course, correspond to the CL service and practice.

So what did we learn? First, we learned that uniformly people said that using any type of behavioral intervention in hospitals is a pretty messy affair. We learned during this process that physicians and nurses, not just the physician assistants, wanted to be included, so we immediately expanded to a more inclusive group. One of the things we learned is that training should happen off site. We had planned to do the training on site in short chunks of time, and we tried that once and it failed miserably. People’s pagers were going off, they were getting pulled out of the training, and so we ended up switching it to an off-site training done during paid time off. That’s the way the providers preferred it and that worked out well for us.

The clinicians told us that they were pretty comfortable screening for tobacco and alcohol. These were common prompts in Epic. But they were not as comfortable talking or screening for illicit drugs and medication misuse, so we tried to include that, we did include that in our workshop training. They were worried about being too busy for motivational interviewing, and we were worried about that as well. And the lack of privacy and a place to sit in the patients’ rooms was an issue, so we tried to help them consider ways in which to circumvent those issues if they were to arise.

And the administrators and clinicians, they endorsed the different strategies, and they felt that for, after the workshop when we asked people if they felt that they were ready to use motivational interviewing regardless of which strategy they were in.

One of the things that was challenging, from a research point of view is the clinicians, initially when we were working with physician assistants, they supposedly were going to carry their cases to discharge, but there were some things that happened along the way, like the hospital took over another hospital and then they, providers got split across campuses, and so they started to share cases. So for us to be able to determine the uptake of MI, in order to keep it independent of provider, we decided that only the first assigned clinician was given the opportunity to conduct the motivational interview. That’s the person we counted in terms of the actual implementation of MI.

So we recruited these clinicians. They were all daytime staff. They could work some evening or night shifts, but they had to be on daytime for us to be able to capture the work they were doing. And of course, they had to agree to all trial procedures, which included audio recording their sessions. Everybody was provided with their own digital audio recorder. There were audio recorders on all the units, and all providers had the cell phones of our research assistants in case that all failed and they wanted to record a session. Only if they recorded the session did it count. That’s at least the decision that we had to make. And then the main exclusion was they only worked nights or weekends.

So the clinicians were, they were the same across, there were no demographic differences across conditions. We had an even spread of physician assistants, nurses, and doctors in each of the conditions. We had majority nurse and physician assistants in the trials and just a few doctors. Let’s see.

We looked at their motivation to learn MI. There were no differences in that across conditions of baseline. Their personal feelings about MI, as well, were relatively similar, with the exception of how familiar they had been with MI before the trial where the Order One condition had slightly less familiarity. And then their general feelings about MI were similar across conditions, with the slightly positive view about MI, although some skepticism about the effectiveness of it in the literature as well as how much it should be used within their settings.

So patients had to be adults, 18 or older. They had to acknowledge using substances within the past 28 days, and they had to meet the screening criteria that would rise them to the level of a substance abuse disorder. And we included everything including nicotine, anything, obviously, that could have an impact on their medical condition. We also wanted the people in the study to have a chance to capture these individuals, so we tried to include people that would have conditions that would at least have an expected length of stay of three days or more. And of course, they had to be willing to consent to the audio recording and study procedures.

So the individuals in the study were fairly diverse and representative of the greater New Haven regions: 57% white, 30% black, about 12% Latino. They were a few more men than women in the study but a nice sample for both. And the predominant primary drug, the drug that they identified as causing them the most problems, alcohol or nicotine, and then a smattering of other substances along the way.

The patients were roughly middle aged. They were with the first assigned provider for about two days. They stayed in the hospital about seven days. In terms of their motivation, this was a 10-point scale, and you can see they at least had some motivation for changing their substance use in terms of how important it was to quit, their ability to quit, and their willingness to give it a try.

They had a variety of complicating factors to their substance use, a whole host of medical issues, complicating mental health concerns, again, no differences across conditions. These were the more complicated patients, typically, in the setting.

And so I wanted to, before I present the results, give you a chance to tell me what you think. So this is a poll question. What percentage of study-eligible inpatients in the See One condition received a motivational interview? What’s your guess?

Heidi: Thank you. So the answer options are zero to 10%, 11-30, 31-50, 51-75, and greater than 75%. Go ahead and take your time. Give it some thought. We’ve got about 50% response rate, so I’ll wait a bit longer. All right, it looks like we’ve capped off right around two-thirds of our audience. So I’m going to go ahead and close this out and share those results. Eighteen percent selected the first option, zero to 10; 51% selected 11-30; 25% selected 31-50; 2% have selected 51-75; and 4% selected greater than 75%. Steve, do you want to make any commentary on this before we go to the next one?

Dr. Steve Martino: I would just say that’s interesting. This was the See One workshop only condition where they were encouraged to use MI. So let’s go to the next poll question.

Heidi: Okay. So the next poll question we have up on your screen now. So what percentage of study-eligible inpatients in the Do One condition received MI?

Dr. Steve Martino: That’s the condition with the bedside supervision and then those individuals could do the motivational interview if they so chose.

Heidi: Okay, the answers are streaming in. We’ll give people a little bit more time. I think they’re getting the hang of it. They’re coming in quicker now.

Dr. Steve Martino: All right.

Heidi: Okay, I’m going to go ahead and close this out and share those results. So this time 7% selected zero to 10, 42% selected 11-30, 36% selected 31-50, 16% selected 51-75, and no one selected greater than 75.

Dr. Steve Martino: All right, okay. I can’t wait for the next one. Let’s try the next one.

Heidi: Okay. So here is the final poll question up on your screen now. What percent of study-eligible inpatients in the Order One condition received motivational interviewing? Had about half of our audience vote. We’ll give people\_

Dr. Steve Martino: Oh, come on. Let’s get some more.

Heidi: \_a few more seconds to get their responses in. These are anonymous and you’re not being graded. So if that helps you take an educated guess, feel free. All right, the answers have stopped streaming in, so I’m going to close this out and share our final results. This time 6% selected zero to 10, 28% selected 11-30, 38% selected 31-50, 21% selected 51-75, and 6% selected greater than 75. And you’ll get that pop-up to share your screen one last time. There we go.

Dr. Steve Martino: Okay. Well thank you for everyone for participating and now the envelope, please. So in the See One condition, you all can think about what you had indicated. Those who received the workshop only with the CMEs, here’s the results. Only 0.9% of the eligible individuals who had a substance use disorder were identified and provided with a motivational interview in See One.

For Do One, bedside supervision provided, as they requested, and two definitely up front, 2.9% of the individuals who could have received a motivational interview because of their substance use did so. And then in Order One, 21.8% of the study-eligible participating individuals received a motivational interview.

So this was pretty shocking. One, just across the board it was pretty low, but the way in which Order One far exceeded what was achieved in See One and Do One was pretty impressive. Although still not as impressive as we thought it would have preformed, and it seems, as many of you thought it might have performed. So in the See One, three sessions ended up being recorded by two of the 13 clinicians in that condition. In the Do One, 11 sessions ended up being recorded by four of the 12 clinicians in that condition. And in the Order One condition, there were 100 sessions ordered, and those sessions were recorded by 13 of 13 clinicians/CL MI specialists.

It turns out that actually of all those sessions conducted, clinicians themselves didn’t do any of them. Every one was ordered and so none of them conducted them on their own. The clinicians ended up placing 116 orders for MI, and CL was able to get to 100 of them, so 86% of the cases. And often they couldn’t get to the case because someone got discharged just too quickly after the order had been put in and we didn’t have enough time to get up to them.

So we then wanted to look at adherence and competence. When the sessions were conducted, how well were they done? And so for those who do use motivational interviewing and research it, you may be most familiar with the mighty, or the MISC. The Yale group years ago developed an independent tape rater scale for adherence and competence in rating motivational interviewing.

And this scale has 10 MI consistent items and five MI inconsistent items, as applied to, in this case, the target of the behavior change is substance use. And in our prior work, we showed that five of the items cluster to form what we refer to as a fundamental MI strategy grouping. And five of them cluster to form what we refer to as an advanced MI strategy. The fundamental strategies are more of the basic skills and more the relational skills, person-centered skills of MI, generally speaking. Although of course, those can be used strategically, too.

And the advanced MI strategies really collected the types of things clinicians would do that would be more likely to, more directly elicit change talk, so more the technical side of the approach and the evocative component of MI. And then the five MI inconsistent items, we’ve just created a mean of those to monitor what was going on there. And we can train people very reliably in scoring these various items.

So in this study, here are the scores, now, the median scores. The challenge we had is we had so few sessions completed in the See One and Do One that we collapsed it, and things were so unbalanced on top of it that we went with nonparametric tests. And what we found, though, is the fundamental and advanced adherence and competence was significantly higher in the Order One condition than in the See One and Do One conditions. So those people who were perhaps more trained and specialized in MI in CL were performing it with more proficiency than those in the other two conditions combined. And there was very little, actually one in our scale means that there was no MI inconsistent occurrences within a session. So you can see it was virtually no MI inconsistencies over time.

We then wanted to look at, we have clinical guidelines or expert consensus on what makes a good enough session with this scale. And so if both the adherence and competence score for any one item is four or greater, we view that as, and that happens at least five times, so five of the items are at least at a mid-point level of adherence and competence in this scale. That is the minimal proficiency. And then when you go higher, you get the higher proficiency, although at some point it doesn’t make as much sense because you wouldn’t necessarily need to use all strategies for a highly proficient session. So you could see that the Order One condition looks like, the suggestion is that the more sessions are reaching a level of performance that would be considered more proficient overall.

And then for the client language rating, we looked at the change talk percentage in the session. And we actually ended up having a pretty high median of change talk percentage within the sessions. The patients did indicate, if you recall in the baseline it’s a questioning of their completion of motivation skills, they indicated a fairly moderate to high level of motivation. And so this kind of parallels that. Again, we have very few sessions in the See One, Do One conditions, so we did not get an effect here.

And then finally, at the end of the trial, we interviewed the participants about their experiences. And these are some of the things that they told us. They told us, first of all there was a theme around training and sustainability of motivational interviewing, and they said that it would have been helpful to have a wider dissemination of MI training. For example, all staff on the unit being trained rather than them being trained separately. They also suggested that it would have been helpful to have had a forum where they could discuss MI sessions with peers. And then finally, they said it would have been helpful to have had booster sessions along the way. Now the last of those items, the booster sessions, was a little surprising because we did offer booster sessions along the way, annually, since most people were in the trial for more than a year. And nobody ever took us up on our offer and we reminded them several times. We once had someone who actually wanted a booster session, and then I tried to schedule it and I just could not get the person to commit to any date. And they said they’d get back to me. So this was surprising.

Second large theme was on policy and structural changes that might facilitate the implementation and sustainment of MI on the unit. They felt that if they had reduced caseloads they would be more prone to use this. And I have to say I did see that happening with the takeover of the other hospital. The caseloads began to expand over the trial and that made it harder for them to find the time to talk with their patients about substance use. They also suggested that maybe training a cohort, like an entire floor or unit, would have been useful so that colleagues could cover while an MI session was in progress. They often didn’t feel they could ask one another to cover for each other because they were working on different units.

They brought up, again, the issue of privacy. The shared rooms is certainly not the best place to conduct an MI session. And there are, of course, a lot of people coming in and out of the rooms. As someone who listens to a lot of MI sessions and have been rating fidelity of MI for years on end, these were the most noisy sessions with so many sounds going on that sometimes it was honestly hard to hear what was happening, so we ended up transcribing all of the sessions to ensure that our fidelity ratings would be based on the same stimulus among the raters. And also we needed to do that for the change talk ratings.

Another issue that was a little frustrating, certainly was, and these participants pointed it out, is that they felt that we should have arranged for the billing for the brief intervention so that it was seen as a valuable service. And we did try to work with the billing department at the hospital. They had not been billing for brief interventions and had not employed the CPT code for that. And despite our best efforts to make it happen, we were such a low priority for them and the amount of money that would be reimbursable for them was such small potatoes relative to other things they were managing, especially around the combination of the two hospitals that we never got it to happen. And thus, they weren’t necessarily entering notes in about the sessions to back up the billable service. And then they felt that we should add a screening for medication misuse to Epic like had existed for tobacco and alcohol.

The last theme that was prominent was how much the clinicians valued MI. They said that they actually implemented it much more often than they recorded. They actually felt that the study procedure of having them record a session was a burden and suggested that sometimes they may have chosen not to do the session because they just didn’t feel like recording it. So that was a challenge to all of us who do this type of work as to how do you best reliably capture and validly capture what’s happening. They said that they used MI in their work more broadly, beyond what the, for substance use or even for a full interview. They felt that they were applying it to many other health-related behavioral change issues. And then finally, they reported they were happy to have added MI to their skill set and they were pleased to have been participants in this project.

So I have a protocol paper that if you want to know more about some of the finer details of the design, this was published in Implementation Science in 2015, so feel free to look at that.

And our next steps of writing up the main outcome paper. We’re probably going to target more of an internal medicine type of journal to reach the audience that we’re trying reach with this. We have cost data on everything, trying to just find a little bit of my health economist time so that we can finish those up. And currently what we’re doing at the VA is we are piloting an adaptation of the Order One condition at VA Connecticut. As many of you may know, there’s a performance measure for all VAs that people who screen positive for the AUDIT-C are supposed to receive a brief intervention for their risky alcohol use, and how to get this done is part of the challenge.

So based on this study, what I have proposed is that we create a consult that nurses could put in that would go to clinical health psychology and then they would be the individuals who provide the brief intervention. Our CL service is very small at VA Connecticut and they really couldn’t absorb the workload. And this really fell within the kinds of work that health psychology had been doing and that’s what we implemented. And it’s been going pretty well, although there’ve been some hiccups along the way.

So that’s it for my presentation. I’m curious what you think of this. Any questions or comments you have, I’d appreciate hearing from you and look forward to our discussion.

Heidi: Excellent. Thank you so much. So for our attendees, we can take your questions at this time. On the right-hand side of your screen, you will see a control panel. Down towards the bottom, there is a section labeled questions. Go ahead and click the arrow next to questions. That will expand the dialogue box and you can then comment or ask questions there and we’ll get right to them. The first one, I came a little late, so I apologize if I missed this, have you or do you intend to write up any papers or reports on this?

Dr. Steve Martino: Yeah, so the protocol paper reference is in the slide set and I’m working on the main outcome paper now and hope to get that out in the next couple of months. The reviews process will, obviously, I’m sure lead to some revisions along the way.

Heidi: Thank you. We do have a few people that wrote in thanking you for this helpful presentation, and people would like to know if the slides are available. Yes, they are available. You can either write into the questions section and I can get you a copy. Or, as I said earlier, you received a reminder email this morning from HSR&D Cyberseminar, and there is a slide hyperlink in that email. And also one comment, the picture of the baby is priceless. Thanks for including that.

[Unintelligible crosstalk 44:12]

Dr. Steve Martino: \_in your presentation.

Heidi: They’re always well received. Okay, we’ve got a lot of questions that just came in. This is so needed in healthcare. How is SBIRT, in general, doing for outcomes in the latest research? I’ve read mixed results.

Dr. Steve Martino: So there’s consistently strong evidence for the effectiveness of SBIRT for alcohol use and some, I think, with systematic and metanalytic reviews of it for tobacco use. Where the controversy lies a little more so is in the use of it for illicit drug use. There were two fairly well-known publications that came out in JAMA in 2014 of large-scale trials that found no effect for SBIRT for illicit drug use. But subsequently there have been a few studies that have shown some effects. The challenge is for all of us to think about how we can best do brief interventions that will at least be somewhat helpful for people with illicit drug use. Interestingly, our study had the majority of participants with nicotine and alcohol [unintelligible 45:40] it's the problem area, so it still was trying to capture a broad group of medical inpatients who likely would benefit from SBIRT.

Heidi: The next question, oh, they’re just streaming in now. Was there any association between the reasons for the patient’s hospitalization and their receiving of MI?

Dr. Steve Martino: We haven’t looked at that specifically yet. Looking at what moderated the implementation of the strategies, the effectiveness of the strategies and what may be happening in that. Those will be analyses that have to come. I was a little bit blind to what was happening, as the PI, of course. Our research assistants could not determine any patterns, necessarily, except we tended to have some providers who were more enthusiastic than others. So the percentages don’t show the distribution across, let’s say, the 13 providers in Order One. There are a couple of providers that put in a lot of orders and then there’s several that only did a few. I would say it was seemingly most reliant on individual provider attitude and effort than anything else.

Heidi: Thank you. How long did an MI interview have to last to constitute use of the intervention?

Dr. Steve Martino: That’s a great question. So we trained them to do this in about 15 to 20 minutes. One of the reasons was we wanted to have enough of a sample in which to be able to rate their performance. But we also said no matter how much time you have, try to do something within the time you have to acknowledge and address and hopefully motivate people to think about making a change in their substance use. It turns out that the 14 sessions that were done by the people in See One or Do One, those sessions were shorter that the ones done by the CL behavioral consult experts. And so one of the reasons we may have significant differences in the fidelity ratings is simply a function of the length of the session and that’s a limitation we didn’t control for, for that in the analyses.

Heidi: Thank you. Thanks for the interesting talk. Do you have any guesses about what the cost effectiveness data will show?

Dr. Steve Martino: Cost effectiveness is a tricky matter. So the Order One condition involved three psychiatrists and one social worker. And we met on a monthly basis for me to review their sessions to continuously support their capacity to deliver MI well. So I know right then and there the high cost of their time and my time would require that the effect be pretty strong. So I think that the Order One condition will still turn out to be more cost effective, but as with cost effectiveness analyses, it will depend on what the price point is where a decision maker has to make that determination. So will it be worth it for the hospital administration to spend more than, I don’t know, $4,000 to implement the Order One condition for it to be cost effective relative to the other two? That’s the part I’ll have to work with the health economist to look at the acceptability curves from the vantage point of hospital administrators. That’s how we’re doing the cost effectiveness in this case. We’re not doing quality adjusted life years and that kind of thing, only looking at the cost of implementation.

Heidi: Thank you. If you were to do this over again, would you train all clinician types within a unit and randomize it at the unit level instead of the clinician level?

Dr. Steve Martino: That makes a lot of sense. Practically, while it was suggested in the interviews, I’m hard-pressed to imagine in a hospital like Yale New Haven how we would do it, but I would certainly consider it. I think it would have to be some type of rolling training that would be provided because, of course, you can never stop a medical unit. So yeah, I would consider it. One of the things I haven’t really sort of sorted out in my own mind is like what’s the next step. I think the next step in one way is to, how do we implement Order One across multiple sites and what type of facilitation needs to occur to improve further upon it?

So one of the things I’ve been thinking more about is what do we need to do to make Order One better since it seems like it was the clear preference. And I don’t know about the rest of you, but I’ve tried on many occasions to have a sustained implementation of motivational interviewing in various types of busy medical settings and it’s just really hard. And at least in my experience, in more adult settings, I can’t speak to pediatric settings, when we have behavioral specialists implementing it, it goes better and lasts longer than when we tried to train the medical staff to do it. But that may not be the case. It’s just been from a broad group experience, my experience.

Heidi: Thank you. We do have a comment that came in. It says: Fascinating. I’ve been attempting to apply MI to inpatients for accidental fall prevention at Portland VA. I’ve encountered similar challenges, such as training clinicians and recording quality. I look forward to your protocol paper and the outcome paper.

Dr. Steve Martino: Great, thank you.

Heidi: Well, that is the last pending question at this time, but we do have a few more minutes. Would you like to make any concluding comments, Dr. Martino?

Dr. Steve Martino: No. I mean I have been practicing motivational interviewing for quite a long time. Supervising, training it, and researching it. And I think the implementation challenge is where it’s at. Motivational interviewing, the network of trainers has done a great job in having a sustained approach to bringing this to the world and to different fields, but getting it in place within organizations, to me, remains the big challenge. And I just encourage other people to join the fun in trying to figure out ways to do this that fit different settings. So thank you for your time and your comments today.

Heidi: Excellent. Well, thank you so much for coming on and lending your expertise to the field. And thank you to our attendees for joining us. Of course, thank you to Christine Kowalski and the IRG team that organized this and all the QUERI monthly Cyberseminars. Those take place, generally, the first Thursday of every month at noon Eastern, so please tune into your email for the next advertisement. And with that, I am going to close out the meeting now. For our attendees, please stick around for just a second while the feedback survey populates on your screen. It’s just a few questions, but we do look closely at your responses, and it helps us to improve the program. So thank you, once again, Steve, and have a great rest of the day.

Dr. Steve Martino: You too. Bye-bye.

# [ END OF AUDIO ]