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Session: The FRAME: Framework for Reporting Adaptations and Modifications - Expanded

Presenter: Shannon Wiltsey-Stirman, PhD

**Molly:** We are at the top of the hour so at this time I would like to introduce our speaker. Joining us today we are pleased to have Dr. Shannon Wiltsey-Stirman. She’s the Acting Deputy Director for Dissemination and Training Division in the National Center for PTSD located at VA Palo Alto Healthcare System. She is also an associate professor in the Department of Psychiatry and Behavioral Sciences at Stanford University. So Shannon, I would like to turn it over to you at this time.

**Dr. Shannon Wiltsey-Stirman:** Okay. Thank you. Can you see the slides?

**Molly:** Yup. We are all good.

**Dr. Shannon Wiltsey-Stirman:** Okay. Great. So I’m really happy to have the opportunity to join you all today to talk about modifications and adaptations. This is an area that I’ve been thinking about and working on for quite a while and, in particularly, in relation to sustainability which we’ll talk about in a moment and I want to acknowledge that the system work that I’ve been doing with Chris Miller and Ana Baumann and some of the work that you’ll see kind of evolved from a chapter that Ana and Lea Cabasa and I worked on for the B&I Textbook in 2017. And I am trying to advance my slides. There we are. Okay. So we have a couple of poll questions so I will turn it back over to you Molly.

**Molly:** Thank you. So for our attendees, as you can see, you do have a poll question up on your screen. We’d like to get an idea of what is your primary role in VA. We know that many of you wear many different hats within the organization, so we’d like to get an idea of your primary role is. The answer options are student trainee or fellow, clinician, researcher, administrator, manager, or policy maker, or other. And, if you’re selecting other please note that you can type your exact job title into the question pane of the control panel if you’d like us to have a record of that. And it looks like we’re about at 75% response rate so that’s great. I’m going to close out the poll and share those results. 6% of our respondents are student trainee or fellow, 3% clinician, 74% researcher, nobody selected administrator, manager, or policy maker, and 17% selected other. So thank you to those respondents and, Shannon, do you have any commentary on that before we move onto the next poll.

**Dr. Shannon Wiltsey-Stirman:** No. We can move ahead.

**Molly:** Excellent. So for our attendees we do have one more poll question for you to answer and it is up on your screen at this time. With respect to adaptation/modifications, please select one of the following; I have needed to adapt interventions for my clinical work, I have needed to adapt interventions for research, I haven’t had to adapt interventions in the work I do. And go ahead and take a moment to select your responses. We’ve had, or response, singular, we’ve had about 60% respond already so we’ll give people just a few more seconds. Okay. I see a pretty clear trend so I’m going to go ahead and close this out and share those results. 13% of respondents have needed to adapt interventions for clinical work, 74% have needed to adapt interventions for research, and 13% have not had to adapt interventions. So, thank you again to those respondents and I will give you the screenshare one more time.

**Dr. Shannon Wiltsey-Stirman:** Okay. Great. Okay. As I mentioned a moment ago, the questions around adaptation have come up in research and in practice as we’ve been thinking about implementation and sustainability in particular. There was a time when there was sort of sense that interventions needed to be delivered with fidelity at all times and that the goal really should be preserving fidelity first and foremost. But over time, there started to be more recognition that interventions naturally get adapted in practice, or modified and and then in the dynamics sustainability framework it looks like my citation fell off the bottom, but this is from David Chamber, Chamber’s, Glasgow and Stage’s dynamic sustainability framework. They really talk about the importance of adapting interventions to fit the context which are often changing when we’re looking at implementation and that raised, you know yet another reason why we need to really be thinking about adaptation in our work.

Earlier when I started looking at adaptations, it seemed like, as I mentioned there were these sort of holes. You know, there was this idea, you know, do we need to prioritize fidelity or do we need to be thinking about adaptations and I think one of the things that made that discussion a little bit challenging was that we really weren’t thinking about the different types of adaptations that could happen and the possibility that not all adaptations are equal but some could actually improve the outcomes or engagement or some of things we’re interested in looking at implementation whereas others might result in some voltage drop. So there hadn’t been a lot of research really to determine the impact of, you know, the different types of adaptations that occur. Some areas were looking at these things like in cultural adaptations, you know, there was definitely interest in this question and in psychotherapy trials there were dismantling and some component studies but, you know, across healthcare more general the question was sort of focused around adaptations, are they good or bad. So part of what motivated my work was let’s start differentiating between different types of adaptations and then looking at their impact as sort of separate, different forms of adaptation and modification so I want to just go over a few distinctions here.

So fidelity we would define as the skilled and appropriate delivery of core intervention components. Modification is a term that I really use to reflect the fact that changes are sometimes are proactive and sometimes happen in advance and are thoughtful and data driven which is kind of what I, how I would define adaptation as a proactive and planned modification. But I think of modification as a broader term that really captures the fact that some changes are reactive, they’re sort of idiosyncratic, they’re on the fly, they’re not planned out, they’re sort of improvised often in response to a barrier that might come up or, you know in routine practice And so when we talk about adaptation I think, and when people think about adaptation as something we want to be striving for, I think that could be correct but I also think we need to think about what to do when modifications are made, sort of less proactively and kind of in the moment and so I’ve started making a distinction between those two things.

Now when we talk about core elements of an intervention, those are defined as the parts of the intervention that are empirically or theoretically associated with the desired outcomes or impacts of the intervention. So they’re really the parts of the intervention that are effective and necessary and a couple things to think about that can make this sort of complicated is that there are interventions where we really don’t know the core elements. They might be specified through theory, but they haven’t been empirically established and they might not be the same in all contexts. So in some contexts, for example, a psychoeducation intervention might be absolutely essential because you’re working with a segment of the population that maybe isn’t high in health literacy. There might be other, you know, other contexts where the psychoeducation might be less necessary because you’re dealing with a population, you know, for example, parents of children who are ill, or caregivers, or some caregivers who are really up on all of the, you know information and they’ve looked and read everything they can find on their loved ones illness. And so depending on the context and the population, some intervention, or some elements may not be essential and I think that’s something for us to sort of think about and explore as we move forward. But another thing is that, which I guess is just to say that it makes it tricky to define core elements, but another thing I think that we need to think about is something that Brian Mitman and some of his colleagues have really been talking about which is, that when we think about core elements, it might be that we need to think about core functions rather than the form for complex settings and interventions, so you know we can think about components or we can think about sort of the function of those components. So to take the psychoeducation example, the core function is to educate a population about the disease, the disorder, the intervention, why we think the intervention might work for example, and really that’s the goal and the function. Now whether that’s handed out in a pamphlet, delivered by video, delivered by a peer versus a provider, you know, or the format in which it’s delivered might matter less. So when we think about fidelity’s core elements, it might be important to really think about what the function of those elements are and, you know, part of the adaptable periphery might be how that function is delivered, depending on the context and the needs of the populations and the constraints. So another thing to kind of pull together a little bit of this is, if we think about modification as sort of the broad category of any changes made to an intervention, adaptation would be defined as a sort of planned, hopefully, data driven modifications to an intervention or protocol and then, some of those modifications might be fidelity consistent. They would preserve the core elements of function and others might be fidelity inconsistent and, at least we hypothesize that those might be more likely to happen when they’re not done in the process of adaptation, you know, and sort of a proactive process.

What’s theoretically optimal is, in terms of thinking about fidelity consistent versus inconsistent adaptations is to plan the adaptations with information and data about the context and the population to preserve the core elements so, over here on this, in this upper right hand quadrant, but when we encounter situations that are unexpected, down here in this bottom right quadrant, if we can preserve these core elements of function, then that’s what we would hope for. Now, on the other hand there might be times when we’re faced, upper left hand quadrant, with a situation where we have planned fidelity inconsistent adaptations. Maybe an element needs to be, of the intervention, needs to be dropped for reasons that we can’t avoid, or we’ve got some sound reasons for doing it. So that might actually lead to refinement or the opportunity to confirm that, you know, that we are looking at a core element or function if we accompany that adaptation with solid measurements. And then occasionally, bottom left, you know, occasionally there are going to be unplanned fidelity inconsistent adaptations and particularly, if we’re looking, if we find some ways to measure the impact they provide opportunities for learning either about, whether or not that is in fact, you know, a core function or a core element, or, you know, we can go back to our stakeholders and say, you know, look what happened when we dropped this, we might need to really, you know, rethink this because what we’re seeing is voltage drop or lower engagement or, you know some sort of, you know, less than optimal outcome.

So because we have some learning over time that all adaptations, you know, adaptations can take many different forms and because we want to be able to look at the different, you know, the impact of different types of adaptations, it’s become really important to think about how to document adaptations. So in 2013 we developed a framework to code and identify modifications of adaptations and that was published in *Implementation Science*. So it really focused on who made the adaptations, what was modified, at what level of delivery, if they were contextual modifications meaning that they happened to the way overall treatment was delivered that they have to do with modifications to the format, the setting, the personnel or the populations. And then we looked at the nature of the content modification field, is the modification just sort of the content of the intervention what does that look like? And we added a cultural adaptation specifier and I’ll get more into that a little bit later but, one thing that we had determined was rather than categorizing an adaptation as cultural, because it could happen in so many different ways and so many different forms, so it could be, for example an adaptation, a context adaptation, for example to the setting or the personnel or it could actually happen to the content, we wanted to have a specifier rather than treating cultural adaptation as a separate thing because it could take so many different forms.

More recently, there’s a group of investigators who have been looking at adaptations and they developed the PCMH adaptations model and a blended assessment model that’s really nice that expanded the framework to include who, what, when, and why. And they were, you know, in their research they identified that most adaptations the why was generally to increase effectiveness and that the adaptations that occurred tended to occur more in early to mid-implementation sets. A nice example of how, you know, we could use the framework to characterize adaptations to really learn more about the process.

There are actually, there are several other taxonomies that I’m not going into in this presentation really just due to time but there are several different frameworks [unintelligible 15:33] adaptations and a recent study looked at how well these different taxonomies fit the data so, in addition to the 2013 framework that we developed they looked at some cultural adaptation models and then they looked at more of models of adaptation and what they found was that coverage and clarity were fairly high for the framework, the 2013 framework that we developed but they identified some opportunities for refinement as well and in 2017, when Ana and Leo and I were working on this chapter, on adaptations, we decided it was an opportunity to update the framework based on things we’d been, you know, seeing in the literature and a review of the literature and really the importance that we were starting to see of identifying the why of adaptation. That chapter, the work we did in that chapter was further refined through, you know, sort of a larger process and the work that I’m going to show you today is in press in *Implementation Science*. It’s not available online yet through *Implementation Science*, but I have a link posted and it’s also going to be at the end of the presentation but it should be out any day now.

So now we have a gigantic framework because adaptation is somewhat complex. So we have the, we have up in the left hand corner, and anything in a dark box is new, or anything in bold is new. So we have when the modification occurred. We added whether they were planned or unplanned. We added to who participated in the decision to modify and, one thing I want to add here is that as we developed the process by looking at the literature, doing some iterative coding of papers that had come out in the literature, we also presented a, you know, what we thought was a fairly close to final framework to a variety of different stakeholders. And one of the things that came out when we were, when I was showing it to a group of people who are working in global health, global woman’s health, they suggested adding, and you’ll see down at the bottom, this who box, indicate who made the ultimate decision which seems really important, especially for questions around sustainability. You know, who actually, even if it was sort of a coalition of stakeholders which you’ll notice we broke out to include, you know, more roles in this, in this particular, in this new framework but also the idea of, you know, who made the ultimate decisions and I’m going to kind of go through each of these boxes in a little bit more detail here.

So the when and the who we wanted to look at whether, you know, we wanted to be able to look at whether the types of adaptations that were made differed depending on sort of the stage of implementation. And then, it also seemed very important to be able to really look and be able to test hypothesis, some of the hypothesis I mentioned around, you know, the planned versus unplanned modifications. We also wanted to be able to look at, you know, questions about who decided to modify. In the 2013 model we set a coalition of stakeholders which we, kind of intended to include, you know, the individuals who had received the intervention or family members, community members but we really broke that out to be more specific about the who.

What was modified looks fairly similar although, in addition to kind of the training and evaluation component, which was really about how staff is trained or, you know, how the intervention is evaluated we also wanted to add modifications to the strategy they used to implement or spread the interventions. We have not really looked at, and we didn’t intend for this framework specifically to be looking at modifications or adaptations of implementation strategies. This is really developed to look at adaptation of interventions but we, you know, we don’t actually know how it would work and whether it would sort of fit the goal to look at adaptations to implementation strategies. But we wanted to at least be able to acknowledge, you know, as we’re documenting whether or not there was some sort of change, so for example, you know, while people are scaling up maybe they had to move from an in person training to a web based or some sort of asynchronistic training and we wanted to at least be able to capture that. Level of delivery remained really the same from the 2013 framework and so did the contextual modifications. We did expand the questions around the nature of the content modification and this came from really just using the coding framework. There have been some different groups that have used it. My group used it and, you know, we wanted to be able to differentiate and really be a little clearer about a few different things including the idea of drift. So, sometimes, within a configuring encounter there might be drift out of and then back into the intervention. We see this in psychosocial interventions but also there can be drift without returning and so we wanted to be able to capture that difference and another thing that seemed important was spreading. So for example if you have, you know, a one session psychoeducation meeting, for example, or, you know, a session that really focuses on something like psychoeducation, you know, it’s possible that that content might get broken up for different reasons, having to do with, maybe, the populations capacity, the length of the visit, things like that so we wanted to be able to capture that. And then also, you’ll see at the bottom that we wanted to be able to specify whether the core elements or functions were persevered in this adaptation, whether they were changed or whether it’s unknown, whether we just don’t actually know if something is a core element.

And then we wanted to add the why and we looked at that in a couple of different ways. So, first of all, we wanted to be able to characterize the goal. So is it about increasing reach or engagement. Is it about increasing retention, improving feasibility, improving fit, and then this is where we put our cultural specifier. It actually could be a sub-point under this improved fit to address cultural factors. To improve effectiveness or outcomes, to reduce costs or to increase satisfaction and then we wanted to look at factors that influence the decision and so these broadly map on the sort of levels that we see in implementation framework so we have kind of the outer context, or sociopolitical, the inner context with the organization or setting, and then the provider, and the recipient. And you’ll notice some of these things we really looked at a couple different things as we were coding. Reasons were not always completely clear in some of the literature that we were looking at and coding so we also drew from literature around social determinants of health and we looked at implementation frameworks to be able to look at things like some of the inner setting and outer setting barriers. And then you’ll see some of the recipient level came from literature and some of the literature on adaptation that we were coding as well as things such like social determinants of health.

We’ve also been looking more, the framework as we’ve sort of developed it can tell us more about the implementation process, you know, the who, the when, the why. It gets a little bit less at the how other than is it proactive, is it data driven, it is reactive and there are a number of frameworks and there’s some really nice literature out there on kind of how to adapt that we’ve seen emerging, you know, we’ve some systematic reviews like some of the [unintelligible 23:32] work, we’ve seen some work, you know, some different frameworks and the cultural adaptation literature, Greg Aaron’s has something out on the, the adaptation process. And those often tend to really look at kind of stages like, you know, what you do first, what you do next, etc. so we wanted to add a decision tree process to really capture the fact that often adaptation doesn’t happen, you know, in a completely linear way as we all know. Many things in implementation don’t so this is some work that Chris Miller took the lead in writing up and developing but we developed a decision tree to look at questions of, you know, how do you actually decide when and how to adapt. So, you know, this top point looks at, you know, do we have any kind of data and information that would suggest that an adaptation is needed and in the cultural adaptation literature Anna Lau has cautioned that we shouldn’t automatically assume that we’re going to need to make big adaptations, but there are certainly times when either based on, you know, published data or needs assessment or input from different stakeholders that we might really need to.

So at this point, if we do determine that we need to make an adaptation, we’d want to look at do we know what these core elements or functions are and, if we do, can we preserve these core elements If so we would suggest proceeding with making these adaptations but evaluate to try to see if there are some opportunities to refine. If we have some unknowns in here, then we would recommend a pilot if the timeframe allows it. If so, we would suggest doing a small pilot with a measure of the key outcomes that you know, the research team or the implementation team and the stakeholders decide are really the key outcomes for them and for their projects, but if not, you know, try to evaluate as you go along and then really look at what kind of outcomes you’re getting. Now this might be through something like a, you know, a QI process. It might be through, you know, collecting some pilot data but having some sort of strategy to assess the outcomes you’re getting early on become really important. If you notice that you’re getting outcomes that are not exactly what you would hope for or what you’ve seen in published literature, you might want to look with your stakeholders as whether the voltage drop is accessible. If it’s a little less effective but you’re able to reach a lot more people, that trade off might seem okay to stakeholders. But if it doesn’t, then decisions might need to be made about further adaptation or even the implementation and trying to identify something that would be more appropriate for the context and setting. So you know we’re trying to really think through how do we actually make these decisions about adaptation and what would be the process that we would recommend to really try to be as successful as possible in making adaptations proactively and in a data driven manner.

So now I’m going to switch a little bit and talk about how we actually assess using things like framework for adaptations. So we’ve used a variety of different things with the frame or sort of the 2013 precursor to the frame. So we’ve looked at self-report. This could be embedded in a, you know, a medical record or a template. You know, did you make any modifications and if so, what type. And you might, you might pare it down to a less exhaustive list, depending on the type of intervention. You could also send out a periodic check list to the providers, or the people who are doing the interventions. You can develop a series of interview questions or use a series of interview questions to sort of assess for the types of adaptation or you can observe and really there are some advantages and tradeoffs to each.

So in the interviews, I’ll give you some examples of the types of questions that we’ve been asking in our work. So we would ask, since we started implementing it have they made any changes, if so, how. And what we found to be really important is that we make sure that the people who doing the interview are very familiar with the, the framework and, you know, be able to ask enough questions so they would determine, you know, exactly how they are going to code. Because when we first started doing this even in 20, you know, 12, 2013, when we were developing the framework, you know, there are, people would give us answers and as we were, or we had, we’d been asking about adaptation, you know, and developing the, the codebook as we went along and we realized that, you know, in the interviews we hadn’t asked some of the right questions to differentiate between some things so one example might be drift. You know you’d want to be able to ask did you come back to the intervention or did you just sort of leave it aside. And then we also want to ask, you know, are these adaptations you’d make for everybody or for just some people, find out more about that. We also asked about what lead to them making the change. This is the, we were looking at a psychotherapy intervention so we asked about things like preferences versus recipient needs, different constraints, some of the things to probe as the reasons that we identified in the framework. Questions about who was involved and then we also want to know, does it seem like it’s working and how do you know. You know how are people making decisions about whether or not the adaptations that they make are working. And then we code that with our codebook.

We also use a self-report survey so you’ll see an example here where we ask about the different types of content intervention and then we ask them, you know, so for how many people are you doing these things with, so how many people are you tailoring for, how many people are integrating with, etc., and then they can say, you know I accept everybody, I don’t deal with anybody and then they have some opportunities for free response. We also have a, sort of a session by session that we do, so we have an adherence check list and then we just ask people. This is a bit of an older version. We have tried to streamline this a little bit but, you know, we ask them to sort of check off what they did.

So some challenges are, you know, people sometimes don’t always remember what they did. They might not be completely accurate. What we see a lot with some of the psychotherapy is that people will say that they have made an adaptation that is actually, preferably consistent with, you know, what the manual might say so it’s actually falling within the parameters of you know, kind of acceptable, not acceptable but, you know, what the, what the manual would say is, you know, fidelity consistent delivery of the intervention. But there are also issues around record keeping and then provider burden so, you know, everybody’s busy and asking them to fill out checklists or, you know, adding things to templates is, always adds to their burden so we want to be careful about this.

Observation is another way. So we, you know, you can watch the clinical interaction or the, you know, prevention intervention or, you know, watch the interactions, whether live or through a recording. Use the coding scheme and then decision rules that are made and you can make dichotomous ratings so this is for a cognitive processing therapy so we ask the observer to list, first of all, you know, did they seem to be working primarily from this approach or were they kind of integrating. Did they skip things, did they tailor, did they reorder elements so we actually have observers do this. And this is nice in terms of getting an objective rating of what’s going on in that particular interaction but when you have a multi-session, multi-component interaction you miss things like that spreading out. You know, we wouldn’t know if people were covering content across two sessions if you only rate, you know, a single random session. So you know, there are drawbacks. You’re only seeing a snapshot when you do observations.

So there are downsides and it’s made us think a little bit about triangulation of different methods which is the approach that the PCMH Adaptation Group kept when they were looking at some of the who, what, why, when strategy they used like in interviews and some different reports and data they’ve been collecting along the way. But other challenges for observation are time and resources of course, you know, somebody’s got to do the observation. As I mentioned, you might not see everything from a single observation. What we’ve found at least through psychotherapy is that it makes it sense to assess fidelity and adaptation simultaneously and we’ve found some interesting results that I can share based on that. And you know, but when you’re observing the full protocol it can have implications for fidelity assessment, you know, for psychotherapy. If you know what happened in the previous session, you know, you’re not, you’re looking at maybe fidelity across the protocol. You’re not looking at fidelity kind of within what’s recommended for a given session and it can get a little, a little challenging so, you know, we have to sort of think about who’s going to observe and who they observe, you know single interactions or do they observe multiple across and sort of a trade off in regards to that.

So let’s see, another thing that I think we need to be really careful about as we move forward to identify the best assessment strategy is how much correspondence we see between self-report and observations and we’re collecting some data on this. But you know, as I mentioned, we might need to triangulate because it might be that it’s possible for providers to accurately report some things, but other things might be a little bit nuanced and, you know, observers might be able to pick up on things that they’re not picking up on. Some forms, like I mentioned, some forms you know, like spreading out across the protocol can’t be observed through, you know, single session or single interaction observation. And so triangulation could improve accuracy. One thing that’s also important to think about, is if we’re looking at a low frequency adaptation, you know, we would need a sufficient number of meetings or interactions to really be able to capture enough to assess agreement. So these are some of the things we’re looking at as we in some of our work we’re doing interviews, we’re doing monthly self-report, self-report at the session level interviewing and so we’re really trying to see, you know, how well do these things correspond and are there, you know, what seems to be the best ways to capture different types of adaptations and modifications.

So you know for me one of the important goals in looking at this, is to really figure out how well adaptation, or how do adaptations and modifications impact the outcomes that we’re interested in. So you know the whole reason to get involved in characterizing some of this stuff is to really look at the impact that it has and to start figuring out what types of adaptations work for which types of contexts and which types of populations for different interventions. And so you know we’ve started to take a look at this and I want to show you some work that a collaborator did in her lab in just a moment but I think it’s also important to think about what we mean by outcome. So, we want to look at what matters to our stakeholders. You know is it engagement, feasibility and acceptability, perceptions of fit, satisfaction, or do we actually want to, you know, look at change and clinical phenomena. We want to make sure we’re measuring what’s of interest to the, you know, the key stakeholders and the initiatives that we’re looking at.

So there’s been some mixed findings and, of course, you know, it probably depends on the type of intervention and the context. There’s been some research to suggest that adaptation to PTSD treatments don’t negatively impact results but in some of this literature they were pretty highly specified. Like, there were sort of, adaptations that could be made that were set forth a head of time. And then we also did a review of, you know, the psychosocial intervention literature more broadly and found something similar. It looked like adding to the protocol could have positive impact, removing didn’t seem to have negative impact but, you know, other adaptations that there really wasn’t much literature to suggest what the outcomes might be. And I think what’s important there, too, is that much of the literature and this is kind of psychotherapy psychosocial interventions didn’t compare an adaptive protocol to the original protocol so we’re sort of limited in what we could learn from that. But there have been other studies that have shown that when programs are adapted to fit the needs of communities it either, you know, led to some improved outcomes or, at least, you know, similar to the original protocol so it didn’t result in voltage drop. But then there have been some studies that show that, you know, there might be missed findings like you might increase retention but you might have worse outcomes so one of these literatures, or one of these studies looked at substituting an abstinence intervention for an intervention on the use of condoms for a sexual health, you know, sort of preventive intervention because when they moved it from the, you know, the place where it was originally tested to a different community that was more rural, you know, to sort of align it with the community’s values they substituted with abstinence intervention and they didn’t get, you know, the same outcomes that they had gotten in the original adaptation. So cultural adaptations have been mixed. They haven’t been compared to standard interventions, you know, often for very good reason. You know if they’ve got stakeholder input but certain things might need to happen and there have been some findings that they can improve outcomes or improve, you know, the perceived fit and retention as well.

So this is, I want to show you just briefly, some work that Luana Marques and her lab did because I think it’s a really interesting and nice illustration of what we might be able to do if we start to really characterize adaptations. So this was in a community mental health agency that was implementing cognitive processing therapy for PTSD and there were 19 therapists that participated. They had 58 clients, CPT was delivered in Spanish and English. There was a pretty diverse population and so they had piloted the original CPT protocol, sort of a Spanish version of the manual, and then they adopted it based on some stakeholder input. And what they found, you know, in the original pilot where I think they did it with, you know, 10 or 15 people the outcomes didn’t really differ between the adapted and the original versions in terms of retention or in terms of the outcome, you know, the clinical outcomes that they saw. But the providers were definitely more satisfied with it and there were some indicates that it just sort of fit better that the clients perceived it to fit better. But they, they reviewed and coded. They had observers review and code fidelity and adaptation in every session which is a lot of work but can really, really help us, you know, learn some more fine grained things about these interventions and the way that they work and the mean number of sessions attended was about eight which is considered, often considered to be sort of an adequate dose of psychotherapy. But CPT intervention was originally 12 sessions and now they’re sort of saying you can, you can finish early if you’re, if you’ve achieved sufficient clinical benefit, you know, by six to eight sessions and then, also, that you might have to extend it. So they’ve gotten a little more flexible with the length. What we found is that 68% experienced clinical meaningful change at or before the 12 session mark and then, because they had coded fidelity and adaptation and they were getting outcome data, they were able to really look session by session and sort of over the course of the protocol at how adaptations were associated with some of the clinical outcomes. So what they found first they wanted to look at whether, you know, the treatment being delivered in Spanish versus English led to more adaptations. And the delivery in Spanish led to more fidelity consistent modifications of the treatment but they didn’t find that it was delivered less confidently or with any less adherence. And what they found in general, is that fidelity consistent modifications were associated with the, you know, greater PTSD change over the course of the protocol and then also they saw that more fidelity consistent modifications were associated with, you know, the better depression outcomes. They also noticed though, in looking at fidelity, the broken ended adherence and confidence, that confidence of delivery also was associated with greater symptom change and adherence was associated with better depression outcomes. So definitely persevering these key elements seemed to be important. They also looked at fidelity inconsistent adaptations and it’s not always the case if you look at the kinds of adaptations that might be fidelity inconsistent but, in this case, they were basically, you know, it was highly negatively correlated with adherence. So essentially most of the fidelity inconsistent adaptations were things like dropping elements of the protocol so that was not included in this model but we had some evidence that preserving core elements but making, you know, careful adaptations can actually lead to positive outcomes.

I think there’s a bigger vision in the field though, to really be able to look at these types of questions that I’ve just shown you but maybe across, you know, more context,, more intervention and this is some work that David Chambers and Wynne Norton have done to really, you know, to push the field to think about whether we can start collecting data on adaptation so that we can look at this question of what types of adaptations work for what types of interventions and what context with what population. And so I think that this is a place that we might need to end up going and why we might want to start thinking about collecting the data that we can about adaptation as we go along.

One thing that I’ll mention too, as we, you know, we’re sort of talking about how to characterize adaptations. I’ve actually found that as we’re coding if we take this framework that we’ve developed, just sort of the graphic and you look at each adaptation and you just sort of circle, you know, as you go through the framework, you know, okay, when did this happen, what type, and you can kind of just identify right on that framework. And we’re actually trying to create kind of an interface so that, you know, we can do that electronically as well. Because one of the questions come up is, you know, it’s a very big framework, there’s a lot of stuff on it and so practically speaking, especially when you get out into the field, you know how can you really use this whole framework. And one thing I’ve found is that, you know, as you, as you get to know the framework just having that graphic up, I’ll go back to it here, having that graphic up and sort of, you know, circling or checking off as you go is a way to sort of keep it all organized and, and, you know, be able to code as you go. And then particularly if we can just get, you know, the electronic interfaces and the different ways that we can make an electronic interface to cooperate then, you know, we can actually start doing that on line and that might get us to a point, especially if we do that across different fields or, you know, across different areas and interventions of populations it could get us to a point where we can actually start doing some of the work that’s been envisioned, you know, with this idea of the outset outcome.

So I think I’m going to wrap up here and take questions and I’ll just put my contact information up here if people have any questions and I also, here’s the link to the paper, the new paper on the frame. So, I will turn it over for questions.

**Molly:** Thank you so much. So, we do have some pending questions for those of you that joined us after the top of the hour and would like to submit a question or comment, please use the GoToWebinar control panel located on the right hand side of your screen. Down towards the bottom there’s a question section. Just click the area next to the word questions that will open the dialogue box and you can submit it there.

The first question came in, I’m curious if how, if or how research on common factors and psychotherapy informs how you think about these questions of fidelity and adaptation. Can you speak to that?

**Dr. Shannon Wiltsey-Stirman:** Yes. So you know I think common factor is an interesting question because, of course, for those of you who aren’t, you know, in the aware, is aware of the psychotherapy literature, the common factors are things like the, you know, the rapport, the, you know, sort of warrants professionalism, you know, things that we would hope to see across any kind of psychotherapy session. And you know certainly as we think about confidence, you know, it’s always an issue when we’re coding, you know, how do you segment out. It’s sort of part and parcel with confidently delivering a psychotherapy to attend to some of these factors. So for adaptation, you know, I don’t think that we think of it, I think we think of it as something that can kind of, you know, coexist quite well. Sometimes I think, you know, at the provider level, providers might make adaptations because they’re attending to things like the therapeutic alliance and they’re, you know, wanting to make sure that they’re addressing the needs of their clients and that they’re really being responsive to their clients. So I think sometimes we see adaptations made, you know, sort of in the spirit of ensuring that the psychotherapy is being delivered, you know, attending to some of those things. In the work that we do, we also do code the therapeutic alliance and we haven’t looked at it in relation to adaptation and fidelity yet but I think it’s good, it’s an important question and something we certainly will be looking at. It would be interesting to know whether, you know, certain types of adaptations or frequency of adaptations are impacted by the alliance or whether they, you know, impact the alliance for example.

**Molly:** Thank you for that reply. Thank you, Shannon, great presentation and good to see the development in this area. Are your instrument for documentation available to share? The interview guide, checklist, observation form, what is the timing for collecting this data in your work.

**Dr. Shannon Wiltsey-Stirman:** Sure, yeah. We have shared them. They tend to need to be adapted a little bit for the different types of interventions but I can certainly share and actually on this website sometime in the next few weeks I’m going to be putting up, you know, the codebook for the new framework. I think right now we have the codebook for the old framework but we’ll but putting up a codebook for the framework and we can definitely put up examples, but yeah, I’m happy to share those things so feel free to send an email and I think eventually we are just going to kind of get them up on the website. In terms of timing, you know, I tend to work in psychotherapy literature and, you know, so it’s the more frequently the better but, you know, we have to be attentive to resources and we don’t want to burn our providers out, for example. So in the study that we’re doing on CPT sustainability we get interview, we interview the clinicians before we kind of start our active learning collaborative intervention. We do an interview at the one year mark and then at the two year mark and we ask about adaptation at each time. We also get a baseline measure of what kinds of adaptations they have been making and then we get, you know, several times throughout the intervention year as well. And then we have, we do have a checklist that we ask providers to fill out. It was a little bit too much. You know, we ask a lot of the providers in the study so we decided we really couldn’t ask them for it every single session but we do ask them to, you know, periodically fill out a checklist that assesses those adherence and, you know, there would be adaptations that they’ve made. So we do these self-reports several times throughout the year and then, I think that, you know, when we can tie it to sessions that’s probably what we need to do to link it as closely as possible to, you know, outcomes. I think you know when we’re asking people to kind of think back over the course of a year, my guess is we’re going to see a little bit less accuracy and we’re not really going to be able to get, you know, to be as fine grained about okay well how does this work to get our adaptation linked to outcomes, particularly, if they do it with some people but not everybody. But we’re still sort of trying to figure out what type of assessment are most appropriate and get us the answers that we need as we go. And then, of course, the observer rated adaptation will be important to look at as well and we’re getting that for every session that we rate, we’re trying to rate a number of sessions, sort of randomly selected over the course of the year But, you know, as I mentioned with the work that Luana Marques and Truelab did, you know, really getting it session by session gets you, I think, great information and you can get a little bit more fine grained but there are certainly trade-offs that is extremely resource intensive so, you know, we’ll have to see how much we can learn by getting it more periodically.

**Molly:** Thank you. This is follow up from the same person. Also, when you talk about adaptations and modifications most of your presentation focused on the intervention. I know strategies in small piece now in your framework. Would the methodology to document adaptations apply to implementation strategies?

**Dr. Shannon Wiltsey-Stirman:** That’s something, you know, we didn’t design it for that but you know I think that we’re interested in learning if it can but it was already a pretty big framework as it is so we decided not to try to make it something, you know, explicitly to capture, you know, adaptation and implementation strategies. But I think it would be useful to see, you know, the extent to which it could be, you know, capture the kinds of adaptations we make to implementation strategies. But we did make a decision not to try, you know, not to explicitly try to make it something that could capture those types of adaptations. Because there, you know there’s somewhat different, you know, they’re different things and we kind of didn’t want to muddy the water too much but I would like to see, you know, how much. I certainly think some of these, you know, the reasons would probably help us capture, you know, and learn about the different types of changes we make to implementation strategies and I think some of these other things could be, you know, some of the, who participated in the decision, what the goals were. I think some of them could be relevant but I think we just need to learn more whether and how well it would work.

**Molly:** Thank you. It sounds like the data is looking at adaptations on an individual level, for example, therapists. Do you also use the framework and data collection tools at an organizational or interventional level?

**Dr. Shannon Wiltsey-Stirman:** So you know, the content really does look at the intervention but I think that, you know, particularly some of these other levels really can, you know, really can, oh sorry, these other parts of the framework really do look at other levels. So for example you know, if we’re looking at the contextual modifications that really, you know, can tell us about kind of these other forms of modification and adaptation that we might make like, you know, now we’re going to deliver this in home instead of in the office or, you know, we’re going to have, you know, lay health workers deliver it instead of, you know, nurses or doctors. You know, we’re going to be delivering this in community settings or church settings rather than an office setting. So I think you know, some of those types of things certainly can really capture things that are going on more at the organizational level, you know, some of the things around training and evaluation so I do think it can. I think, you know, a lot of what we’ve looked at in our work is really has been focused on the content level although we are looking, you know, at some of these other questions more broadly. In psychotherapy, I think the content level gets to be kind of important for different types of intervention. Some of these other things might be really key to look at as well.

**Molly:** Thank you. How do we know whether we “know” the core elements?

**Dr. Shannon Wiltsey-Stirman:** I think that really depends on the intervention. So, there are interventions were, you know, they’ve kind of, you know, carefully laid out, you know, they’ve done, you know, AB designs, they’ve, you know, done kind of dismantling components. They looked at things with and without certain components and so, you know, we would, you know, we’d have some ideas about, you know, whether certain components or certain types of adaptations, you know, really do preserve what’s effective about the intervention. Other times it’s really based on theory, you know, and so our best guess would be what the, you know, either what the fidelity instruments for the intervention or what the sort of, you know, developer sort of specified were really key or theorized were really key. Then as I mentioned, you know, there might be times when something that’s really core for one population might not be core for another so, you know, we might not know perfectly for everything but I think there are some interventions where they’ve done some work to look at, you know, can you drop this component, you know, can, you know, do you need to deliver this component in the exact way it was originally delivered and things like that. So it really is going to depend on the intervention. We might not always know and that’s where, you know, that’s why we wanted to have this unknown specifier so that if we really, you know, can’t determine whether we’re looking at a core element, we can specify that but when there’s something from the literature, from the theory that would say, you know, this is a key element, you know, we’d be able to code along for that as well. But yeah that’s, just to mention, that’s one of the reasons why we had sort of this opportunity for learning in this grid that we have here because we don’t always know and we might learn things, you know, by, if we remove something that’s fidelity inconsistent, and we, you know, or if we make a fidelity inconsistent adaptation then that doesn’t change the core outcome that were, you know, the key outcomes that we’re looking at we might, we might find that actually it, maybe it’s not, you know, it’s not a key element.

**Molly:** Thank you. The next person wrote in a comment. Thank you for your thoughtful review about adaptation and insights into processes. The next question are you looking into developing perspective guidance for “adapters?” For example, leading indicators of impact that can be monitored to see if adaptations are producing expected short term/real time results. For example, client behaviors observable in intervention activities?

**Dr. Shannon Wiltsey-Stirman:** Yeah. I think that’s a great question. You know, I think it would be, I think it would be great to have some thinking out there around these things. It’s, you know again, it’ll depend I think on the intervention and what really seems to be important both to stakeholders and, yeah, whether we’re looking at kind of moment to moment, you know, things like the behaviors of the clients, for example versus the overall health outcome versus just things like can we get people even to come in for this intervention, can we get people to do the intervention. So I think that, you know, we need to think about the different types of outcomes that we need to be attending to and really the time frames as well. Because I’m trying to see if I can kind of find the slide where we talk about the different types of outcomes that we would want to look at. But I think that what we might see is that there are times that, you know, one outcome might be, one outcome that we might be interested in the short term, like, you know whether or not people are really engaging with the intervention may or may not have an impact on another type of outcome. And so I think we do need more thinking and guidance about that. I think it’s a good suggestion.

**Molly:** Thank you. A follow up question, what is the point of having “core components” if they can sometimes be changed. What differentiates core components from non-core?

**Dr. Shannon Wiltsey-Stirman:** Yeah. I really have started to think about, you know, core components as things that are associated with the, kind of the clinical outcome that we’re looking at. And you know I had really, you know, this sort of the idea of the unknown and things that are core for one population might not be core for another is pretty recent thinking I think on my part. You know I had sort of been saying well core elements are the things that are associated with effectiveness. But then, you know, there are like I think a psychoeducation example is, you know, one that comes to my mind a lot is that, you know, you might be able to really abbreviate the psychoeducation maybe for one group or not have it all, for example, but not for another. And so I think, you know, we really have to think about, you know, whether it’s the case that some elements are really essential for some people or in some context and not in another. At the same time, I think we have to acknowledge that, you know, if there aren’t certain things, if there’s not some things to the core, you know, that really are at the core of the intervention then, you know, then it really wouldn’t matter what we did. So clearly there are parameters around what works and we just need to figure out how much of an adaptable periphery and what’s actually core and, and allow for the possibility that that might differ. But for example, if you have, you know, if you have an intervention that is really focused on something like, you know, if one of the key things is, is, you know, getting people more physically active, you know, and a core element is encouraging physical activity and getting people more engaged in physical activity there might be a lot in the adaptable periphery but if you don’t get people moving and you don’t get people active, you’ve lost the core element. So I think that there probably are some things that, that really, I mean there have to be things that are key, you know, for some of these interventions. I think what we’re just still trying to grapple with for a lot of them is what the adaptable periphery looks like.

**Molly:** Thank you. Well that was the final question and we are at the top of the hour so I’d like to give you the opportunity to make any concluding comments you’d like to.

**Dr. Shannon Wiltsey-Stirman:** Well. I’m going to thank everybody for joining today and thank you for your questions. I think they’re, they, it’s always really helpful for me to be able to kind of engage with people around these things and, you know, clarify my thinking and think about next steps. And I again want to acknowledge the group of folks that I’ve been working with on this work. And looking forward to being able to share the published version of the FRAME with you all soon and would welcome any emails or back channel questions that people have and, like I said, I’m happy to share materials and hope to get some online soon, but feel free to email me for them sooner and I can probably get them to you as early as next week.

**Molly:** 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. As you know, our QUERI Cyberseminars take place on the first Thursday of each month at noon eastern, however, July is a special month so we have two, one happening on Thursday, July 11th and one on Wednesday, July 31st so please check the Cyberseminar catalog and your emails to sign up for each of those. And with that I am going to close out the session now so for our attendees please wait just a second while a feedback survey populates on your screen and take just a moment to answer those few questions. Thank you so much everyone for joining us and have a great rest of the day. Thank you, Shannon.