## Note

1 All the names and identifying information of the persons presented in this chapter have been changed to protect confidentiality.

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# 3

# Developing Therapy Approaches for Deaf Clients Impacted by Language Deprivation

MELISSA L. ANDERSON AND KELLY S. WOLF CRAIG

In Chapter 2 of this book, Glickman, Heines, and Watson discussed strategies for preparing deaf people impacted by language deprivation for therapy. By applying the strategies that they propose, these individuals become more acculturated into a therapeutic way of thinking and working and, as such, traditional therapy approaches become more available to them. Despite this increased readiness for treatment, available therapies must still be adapted for deaf client's culture, beliefs, thinking style, and language needs.

The current chapter briefly reviews available evidence-based therapies and general guidelines for adapting evidence-based therapies for deaf clients. We then illustrate one therapy approach, *Seeking Safety*, for which Deaf-accessible tools have been developed—the *Signs of Safety* toolkit—that been used effectively with deaf individuals impacted by language deprivation. As the reader will see, this form of cognitive behavioral therapy (CBT) shares many components with the pre-therapy strategies described in the previous chapter. Finally, we will explore remaining limitations of the *Seeking Safety + Signs of Safety* model when used with deaf individuals who exhibit severe language dysfluency and propose next steps for the Deaf behavioral health research agenda.

## Evidence-Based Therapies

Hearing individuals seeking help for mental health or addiction concerns have many treatment options. They can select from private practitioners or behavioral health agencies who have access to dozens of evidence-based therapies—i.e., therapy approaches that have been formally researched and found to lead to positive clinical outcome in the general population (APA Presidential Task Force on Evidence-Based Practice, 2006; SAMHSA, 2013). In the past decade, there has been a significant shift toward using evidence-based therapies throughout the behavioral health system. Factors contributing

to this shift include an overarching intent to provide treatments that have been proven effective, and the insurance industry's support of certain evidence-based practices via increased reimbursement rates, among others.

Some well-known evidence-based therapy models include, but are not limited to, Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT), Illness Management and Recovery (IMR), Motivational Interviewing (MI)/Motivational Enhancement Therapy (MET), Prolonged Exposure (PE) Therapy, and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)—a veritable alphabet soup of options! Despite the large number of evidence-based treatments available for the general population, there are *no* evidence-based treatments that have been developed for or evaluated for use with deaf persons (Glickman & Pollard, 2013; NASMHPD, 2012). Currently-available evidence-based therapies fail to meet the unique linguistic and cultural needs of deaf clients (Glickman & Pollard, 2013), for reasons described in the next section.

## Adapting Evidence-Based Therapies for Deaf Clients

The majority of evidence-based treatments combine traditional talk therapy with workbooks or handouts. Many of the workbooks or handouts contain sophisticated means for tracking mood, behavior, and thoughts, and use psychological jargon throughout. Deaf people's median reading level falls at the fourth grade (Gallaudet Research Institute, 2003), and many present with low health literacy due to reduced incidental learning throughout the lifespan—e.g., inability to communicate with hearing parents, hearing healthcare providers, or understand spoken health information on TV/radio/public service announcements (Pollard & Barnett, 2009; Pollard, Dean, O'Hearn, & Haynes, 2009). In order to be used with deaf clients, written English treatment materials, therefore, require plain text revisions or translations into American Sign Language (Glickman, 2009a). No evidence-based treatment manuals are currently commercially available that convey information through plain English principles or in American Sign Language. For example, Glickman (2017) has created a training manual for staff of Deaf mental health care programs which draws on evidence-based CBT practices, but it has not yet been evaluated using standardized research methodology.

Equally important are treatment materials that increase clinician cultural competence and enhance client engagement by being inclusive of Deaf values and social norms, acknowledging their history of oppression, and embracing Deaf people's identity as a cultural—not disability—group (Glickman, 2009a; Ladd, 2003; Pollard et al., 2009). Without making this important acknowledgement, mental health professionals run the risk of reinforcing deaf people's history of oppression and/or reenacting communication difficulties which may have contributed to the deaf person's mental health concerns in the first place.



Given these barriers, there are a number of linguistic and cultural adaptations needed to make available evidence-based therapy approaches more accessible, impactful, and efficacious for signing, culturally Deaf clients, especially those affected by language deprivation. Without access to evidence-based therapy tools appropriate for use with signing, culturally Deaf clients, mental health providers of these Deaf individuals must adapt treatment materials themselves (Barnett, McKee, Smith, & Pearson, 2011; National Association of the Deaf, 2003), resulting in various levels of success and presenting a significant challenge to those clinicians attempting to match the needs of clients with language dysfluency.

Attempts to modify traditional therapy approaches for deaf clients have generally followed these principles of Deaf-friendly mental health treatment (Glickman, 2013; Pollard et al., 2009), many of which were reviewed in the previous chapter on pre-therapy:

1. **Adaptations for language**, including careful attention to and matching communication abilities of consumers, simplification and avoidance of English language-based materials, and use of visual and pictorial aids.
2. Attention to fund of information deficits.
3. Reliance upon storytelling and visual metaphors.
4. Teaching concepts through **examples**.
5. The use of active treatment strategies, like **role playing and therapeutic activities**, as a basis for generating discussions and insights.
6. Creative uses of **technology**.
7. Leveraging **peer-to-peer education**, drawing on the desire of Deaf community members to help and teach each other.

Without such adaptations, therapy approaches developed for the general population often fail to engage and retain signing Deaf clients in treatment. However, the truly *critical* adaptations listed before (i.e., mindfully matching communication abilities, avoidance of English, use of visual aids, attention to fund of information deficits) are in direct response to the high prevalence of language deprivation and the resulting language dysfluency that we observe among deaf mental health consumers.

Even when such adaptations are made, many traditional talk therapies rely on the client's ability to formulate a detailed narrative—whether for the purpose of problem-solving, identifying repeating patterns in one's behavior, or intentionally exposing oneself to distressing, trauma-related content. As discussed in other chapters, due to lack of early language exposure and poor educational experiences, many deaf adults enter treatment unable to formulate a narrative or report a coherent timeline of events (Glickman, 2009a, 2009b). This interferes with the use of verbal problem-solving and cognitive processing strategies that many evidence-based therapies require (Glickman, 2017).

## Developing *Seeking Safety* + *Signs of Safety*: A Deaf-Accessible Therapy Toolkit for Trauma and Addiction

Here, we illustrate the application of Pollard's and Glickman's principles of Deaf-friendly therapy to the development of a Deaf-accessible approach to treating trauma and addiction among deaf clients—*Seeking Safety* + *Signs of Safety*.

### *Selection of Clinical Focus*

In reviewing the Deaf mental health literature and areas of identified need in clinical settings, the first author of this chapter selected trauma and addiction as critical first problems to address via Deaf-accessible psychotherapy development. Deaf and hard-of-hearing individuals report nearly three times the rate of lifetime problem drinking compared to the general population—33.0% versus 12.3%—and are more likely to be regular marijuana users than their hearing counterparts—35.8% versus 26.7% (Anderson, Chang, & Kini, 2018). Communication barriers and lack of access to appropriate treatment compound the daunting task of addressing addiction.

High rates of comorbid trauma complicate the treatment course for this population (Najavits et al., 2008), with deaf people twice as likely to experience lifetime and past-year trauma exposure compared to individuals in the general population (Anderson & Leigh, 2011; Anderson, Leigh, & Samar, 2011; Black & Glickman, 2006; Porter & Williams, 2011; Schild & Dalenberg, 2012). While 25% of hearing women report lifetime prevalence of domestic violence, this figure surpasses 50% among deaf women (Anderson & Leigh, 2011; Anderson et al., 2011; Pollard, Sutter, & Cerulli, 2014; Porter & Williams, 2011). This disparity has also been documented for rates of sexual assault, sexual harassment, and child abuse (Barber, Wills, & Smith, 2010; Francavillo, 2009; Sebald, 2008).

In addition to these disparities in addiction and trauma, some deaf people have little understanding of recovery concepts—e.g., *substance, relapse, trigger* (Anderson, Glickman, Mistler, & Gonzalez, 2015)—and are unaware that being hit, choked, or coerced into sex is *abuse* (Anderson & Kobek Pezzarossi, 2012). Such health literacy gaps are caused by lack of health education available in ASL and lack of communication access to health professionals and one's own parents (Pollard & Barnett, 2009; Pollard et al., 2009). Compounding these health literacy gaps, there are also a variety of signs for key concepts, such as *hangover* and *blackout*, that can contribute to frustration and confusion (Csiernik & Brideau, 2013).

Given that most deaf people who enter behavioral health treatment have trauma histories and 74% of deaf people in addiction treatment have experienced abuse (Titus, Schiller, & Guthmann, 2008), it was logical to design an integrated trauma and addiction intervention for this population, especially an intervention that would focus on psychoeducation and development of simple coping skills that simultaneously target trauma and addiction.



### *Selection of Base Intervention*—Seeking Safety

To address the behavioral health disparities described earlier, the first author of this chapter assembled a team of Deaf and hearing researchers, clinicians, filmmakers, actors, artists, and deaf people in recovery to develop "*Signs of Safety*." *Signs of Safety* is a Deaf-accessible toolkit to be used with an existing, effective, and widely-adopted (Allen, Crawford, & Kudler, 2016) protocol for trauma and addiction—*Seeking Safety* (Najavits, 2002).

*Seeking Safety* is a manualized, cognitive behavioral therapy (CBT) model that prioritizes clients' personal safety, including making life changes such as sobriety, addressing suicidal ideation and self-harm, lowering risk of HIV exposure, and leaving dangerous relationships (Najavits, 2002). *Seeking Safety* includes 25 present-focused treatment topics, each engaging clients in themes relevant to trauma and addiction and helping them to learn a specific CBT skill to target symptoms of both disorders (e.g., "Coping with Triggers," "Honesty," "Recovery Thinking," "Asking for Help"). The skills are divided into four content areas: *behavioral, cognitive, interpersonal,* and *case management.*

*Seeking Safety* has been used successfully with diverse populations, translated into 12 foreign languages, and aligns with many recommended practices for Deaf-friendly treatment—i.e., skill-building and psychoeducation, structured sessions, case management, focus on here-and-now, strength-based work, working "one-down," use of stories, and visual aids (Glickman, 2017, 2013). More importantly, among available evidence-based psychotherapy protocols for trauma and addiction, *Seeking Safety* is the only appropriate option to adapt for deaf persons impacted by language deprivation given its present-focus (i.e., no need to retell the trauma narrative) and reliance on simple coping skills that simultaneously target trauma and addiction. The coping skills are relatively concrete and easy to understand, and most can be represented with pictures and illustrated with filmed stories depicting Deaf actors using ASL and/or modeling of behavior and self-talk.

Each *Seeking Safety* session follows the same four-part structure, as outlined in Figure 3.1 as follows: (1) a five-minute check-in; (2) discussion of an inspirational quote related to the current topic; (3) discussion and active practice of content focused on teaching a safe coping skill; and (4) a check out review about what was learned, whether the client had any problems with the session, and their coping skills "commitment" until the next session.

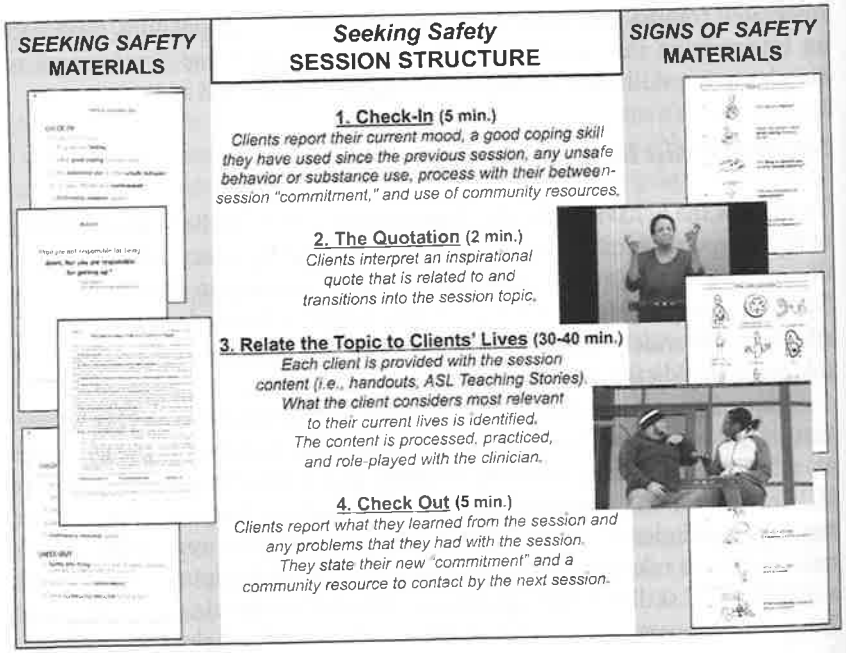


*Figure 3.1* *Seeking Safety* session structure, *Seeking Safety* client materials, and *Signs of Safety* client materials

### *Development of Deaf-Accessible Therapy Toolkit*—Signs of Safety

Despite positive results among hearing individuals, *Seeking Safety*'s client materials, as can be seen in Figure 3.1, rely on written English, assume literacy, and, therefore, fail to meet the unique needs of many signing Deaf clients (Anderson et al., 2015; Glickman & Pollard, 2013). The *Signs of Safety* toolkit attempts to overcome these barriers through the use of a therapist companion guide and Deaf-accessible client materials.

To develop these toolkit materials, our multidisciplinary Deaf and hearing team reviewed the therapist guide and client materials for each of *Seeking Safety*'s 25 topics. The team then identified the "key learning points" that clients, at a minimum, should learn and retain following the review of each topic. To achieve this goal, we followed National Institute on Drug Abuse (NIDA) behavioral therapy development approaches (Rounsaville, Carroll, & Onken, 2001) and Glickman's recommended principles for creating Deaf-accessible interventions (Glickman, 2017, 2013) to develop the following Deaf-accessible **client materials:**

- **ASL teaching stories** on digital video for all 25 *Seeking Safety* topics, which present key learning points portrayed by culturally Deaf actors. Throughout the course of their treatment, clients watch vignettes from this "psychoeducational soap opera," observing the struggles and successes of four recurring characters. The script/ASL storyboard for each teaching story was designed to include dialogue between characters, as well as nonlinguistic modeling of coping skill use.
- A select number of **visual handouts**, which present information using plain English text and visual aids created by Deaf artist, Michael Krajnak. To improve ease of understanding, most English text is presented in ASL word order (i.e., ASL gloss) and many of the visual aids include 2-D representations of ASL vocabulary.



Our team also developed a **therapist companion guide**, which supports clinicians to adapt *Seeking Safety* for Deaf persons, including helpful tips for working with deaf persons, ASL translations of key *Seeking Safety* vocabulary, how issues raised by each *Seeking Safety* topic interact with the Deaf experience, and deaf-related examples of difficult cases.

### *Target Population*

Given the heterogeneity of the Deaf community, *Signs of Safety* was designed to be accessible to a wide range of deaf people. Throughout the therapist companion guide, information and clinical guidance is included that is applicable to individuals who are culturally Deaf, Hard of Hearing, late-deafened, and DeafBlind. The materials in the client toolkit are intended to be easily understood by deaf people with various cognitive and linguistic skill levels. For example, the visual handouts are comprised of highly simplified English text with visual aids, with the goal that clients can rely on English only, pictures only, or a combination of both. Additionally, the handouts are designed with a minimalist approach in high-contract black and white, appropriate for use with low vision and DeafBlind individuals. The ASL teaching stories include a mix of ASL dialogue between characters to demonstrate interpersonal coping skills, ASL self-dialogue (i.e., "self-talk") to demonstrate cognitive coping skills, and gestural "role plays," which attempt to demonstrate behavioral coping skills without any reliance on language.

Utilizing various modes and levels of language to teach *Seeking Safety* content may bridge the gap for deaf persons with minimal-to-moderate levels of language dysfluency, providing the scaffolding needed for full comprehension of the material. Individuals with severe language dysfluency, however, may only be able to comprehend content delivered via visual aids and gestural demonstration of behavioral coping skills. Even with *Signs of Safety*'s linguistic adaptations, both the visual handouts and ASL teaching stories contain linguistic content that may not be understood by those with severe language dysfluency. Therefore, treatment for these individuals may be most effective if focused on primarily learning behavioral coping skills (e.g., physical grounding, self-care), rather than interpersonal or cognitive skills, which are inherently language-based.

It should also be noted that *Seeking Safety* and *Signs of Safety* are merely clinical tools—these tools are only as good as the clinicians who utilize them. For clients impacted by language deprivation, the success of any therapy approach is highly dependent on the ability of the clinician to match their communication skills and cognitive level. The success of manualized treatments is similarly dependent upon the clinician's ability to further individualize treatment materials to match the client's skill level through modeling, role play, gesture, drawing, and other creative techniques.

For clients with severe language dysfluency, the level of necessary adaption will be extensive. The therapeutic treatment process with severe language dysfluent deaf clients will likely require more sessions than a language-fluent deaf client. The amount of scaffolding and rehearsal necessary to ensure common language, bidirectional understanding, and effective treatment is a critical component for treatment. Additionally, there is more time spent not only on discussing treatment, addiction, and survivor language, but discussing specific signs for each concept and the variations of each sign that may be used and accepted in the person's general community.

### *Case Example: Using* Seeking Safety + Signs of Safety *with a Deaf Client Impacted by Language Deprivation*

As noted before, *Seeking Safety* presents safe coping skills from four general content areas: *behavioral, cognitive, interpersonal,* and *case management.* Naturally, the behavioral and case management skills are more easily applied to deaf clients impacted by language deprivation, whereas the interpersonal and cognitive skills are a greater challenge. As such, we will focus on a behavioral topic for the current case illustration—working with Stephanie (*pseudonym*), a deaf client with moderate language dysfluency, on "Taking Good Care of Yourself."

The seventh *Seeking Safety* topic—"Taking Good Care of Yourself"—guides clients to explore how well they take care of themselves by using a questionnaire listing specific self-care behaviors (Najavits, 2002). These behaviors range from basic activities of daily living (e.g., "Do you keep up with daily hygiene: clean clothes, showers, brushing teeth, etc.?") to more complex self-care behaviors (e.g., "Do you have at least 10 hours per week of structured time?", "Do you have at least three recreational activities that you enjoy; e.g., sports, hobbies—but not substance use?"). Clients are also guided to explore how problems in self-care may be rooted in experiences of trauma or addiction; for instance, neglect by caretakers throughout childhood may have become internalized as self-neglect. By the end of the session, clients are asked to take immediate action to improve at least one self-care problem (Najavits, 2002).

*After completing the* **Check-In** *process with Stephanie, Ashley, the therapist, shows Stephanie today's video* **Quotation***—an ASL interpretation of this quote: "A Deaf person's soul, mind, and body should be their own to mold and cultivate—one way to do it is by starting to believe in yourself." Ashley asks,*



*"What does this quote mean to you?" Although Stephanie initially appears confused and did not seem to comprehend most of the quote, even signed clearly in ASL, she did understand the message to "believe in yourself" and was able to repeat this back to Ashley. Ashley validates Stephanie's answer and then links her answer to today's treatment topic: "Yes! Nice job! Believing in ourselves, loving ourselves, and taking care of ourselves are important ways to improve how we feel. Today, we are going to be learning about self-care." Ashley then checks in with Stephanie about whether she knows the sign for S-E-L-F C-A-R-E, Stephanie shows Ashley one of a few accepted signs for the concept, and Stephanie's preferred vocabulary is used throughout the remainder of the session.*

*Next, Ashley shows Stephanie today's* **ASL Teaching Story***, which shows two vignettes of Deaf individuals discussing their problems with self-care, making action plans to fix one self-care problem immediately, and then practicing self-care skills. Because this teaching story relies more on dialogue than role play or gesture, Ashley and Stephanie pause the video at multiple points to clarify unclear or unfamiliar language. These clarifications require Ashley to be a more active therapist than with most hearing persons or Deaf sign-fluent persons—getting out of her chair to act and mime, draw on the office whiteboard, or search the internet for images and videos that illustrate the intended concept. After the ten-minute video is complete, Ashley and Stephanie then review the Signs of Safety Self-Care Questionnaire, a* **Visual Handout** *which includes a picture of each queried self-care behavior. Some examples of self-care behaviors are illustrated with Figures 3.2–3.4.*

*Again, Ashley and Stephanie review each item on the questionnaire, with role play and additional visual aids used as needed to explain any unclear self-care behaviors.*

*Figure 3.2* "Do you currently have at least two drug-free friendships?"

*Figure 3.3* "Do you have at least one hour of free time for yourself each day?"

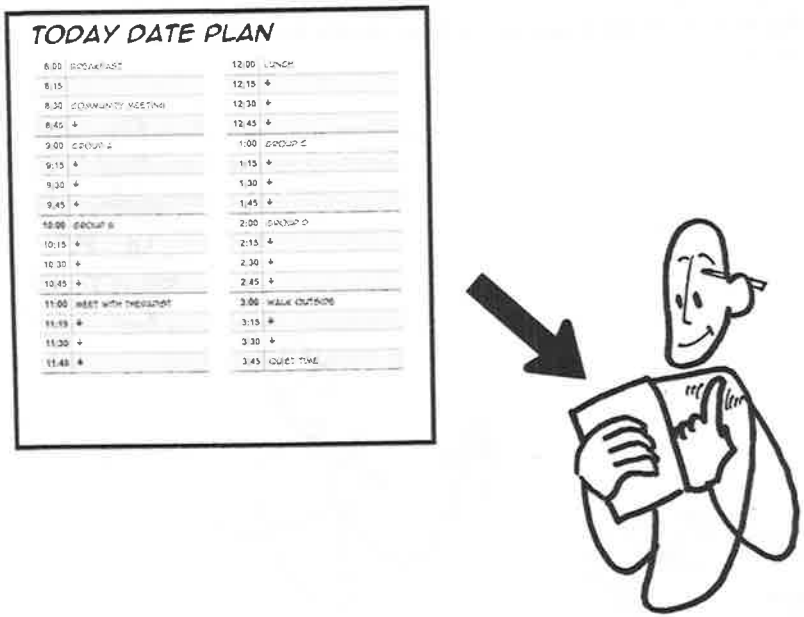


*Figure 3.4* "Do you have a daily schedule and 'to do' list to help you stay organized?"



*After completing the questionnaire, Stephanie identifies two self-care problems that she is most concerned about—eating a healthful diet and getting adequate exercise. Ashley and Stephanie discuss why these are problems and, with simple, careful questioning, Ashley can ascertain that Stephanie is fearful of leaving her apartment to go to the grocery store or to the gym. She is afraid of being attacked by a stranger from behind, similar to her trauma experience. Ashley validates this fear, explaining that Stephanie's feelings are a normal reaction to an abnormal situation (i.e., the trauma experience) and they work on a concrete action plan to help her overcome her present fears. Together Ashley and Stephanie are able identify a safe, supportive friend who can act as a "buddy" and accompany Stephanie to the food store and the gym. They then write a "script/ASL story board" for how Stephanie can ask her friend to serve in this role, and then they role play the conversation.*

*Before wrapping up the session, Ashley identifies one additional self-care problem—not taking all medications as prescribed—and expresses her concern (but not disappointment or frustration) that Stephanie often skips psychiatric medication for many days at a time. (Note that expressing concern—"I'm worried"—is a "one-down" intervention which still leaves Stephanie in the decision-maker role (Glickman, 2017)). Stephanie denies skipping her medications on purpose, but rather reports that, with her unstructured schedule, she often forgets to take them. Ashley and Stephanie go to the whiteboard and write down her medication schedule. Ashley then asks Stephanie to get out her iPhone (which she always has with her), shows Stephanie the alarm function of the phone, and together they input multiple daily alarms for each of her medications. At their next session, Ashley will check in with Stephanie about whether this tool worked or if another strategy is needed.*

*It is then time to* **Check-Out**, *during which Stephanie follows the visual check-out handout and responds directly to Ashley. She reports that during today's session she "learned about self-care," indicates that she did not have any problems with or feedback for today's session, and then makes a "commitment" (i.e., short-term goal or homework) to ask her friend to accompany her to the grocery store. She completes the Signs of Safety Commitment handout to remind herself of this goal—for Stephanie, this is best communicated by writing her friend's first name and then drawing a picture of an apple and a banana.*

As you can see, Ashley used *Signs of Safety* materials as a Deaf-friendly tool to guide the structure and content of the therapy session. With a different person with different language abilities, this same self-care session would look quite different. The content of the discussion would be influenced by that individual's present self-care struggles. The strategies used to teach and practice the self-care skills might be more reliant on higher-level linguistic or cognitive skills. Due to her language dysfluency, Stephanie did not fully understand the ASL or English content included in these treatment materials. However, what she *could* understand was leveraged by the therapist, who applied an array of other active teaching strategies to practice the material in more depth. Again,

for clients impacted by language dysfluency, the success of any therapy approach is highly dependent on the ability of the clinician to match the communication skills and cognitive level of the person. Manualized therapies are merely a *tool* for therapists to improve the quality of their clinical work. Like all tools, they need to be well used.

### *Preliminary Findings*

The coauthors are currently leading a single-arm pilot study (current $n = 14$) of the prototype version of *Signs of Safety*, in which research participants receive *Seeking Safety* plus *Signs of Safety* client materials. Data are being collected on feasibility (e.g., attendance, retention, rate of enrollment, fidelity, and assessment procedures); participant satisfaction; and clinical outcomes (e.g., PTSD symptoms, substance use disorder symptoms, and coping efficacy).

As of September 2017, participants have reported high levels of satisfaction, supported by our 78% retention rate (11/14), higher than the average rate of 73% observed in addiction longitudinal studies with hearing participants (Kleschinsky, Bosworth, Nelson, Walsh, & Shaffer, 2009). Reported reasons for attrition included lack of interest, readiness, or motivation to engage in the study protocol. Pilot participants have also provided vital feedback about how to produce an improved and even more Deaf-friendly version of the *Signs of Safety* toolkit.

Displayed in Figures 3.5 and 3.6 as follows, preliminary results show reductions in PTSD severity and alcohol use frequency from baseline to immediate

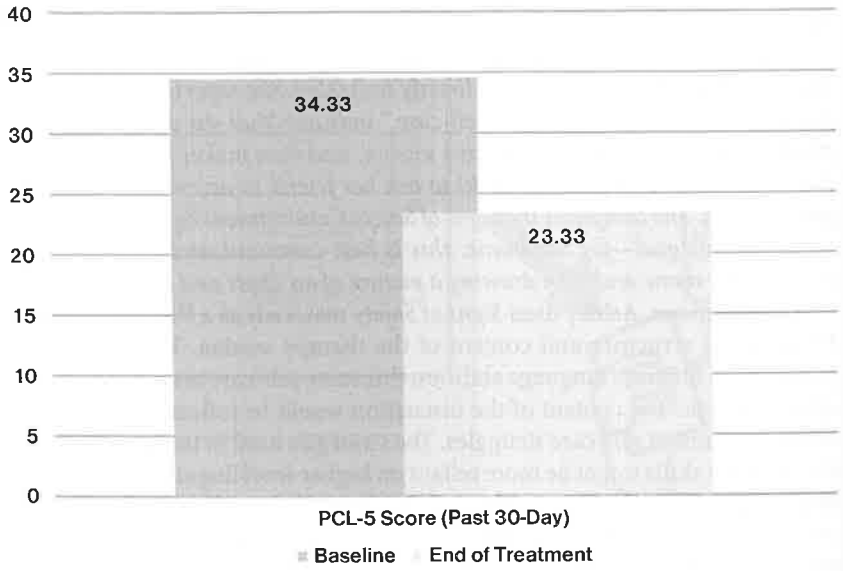


*Figure 3.5* PTSD Symptoms from baseline to end of treatment



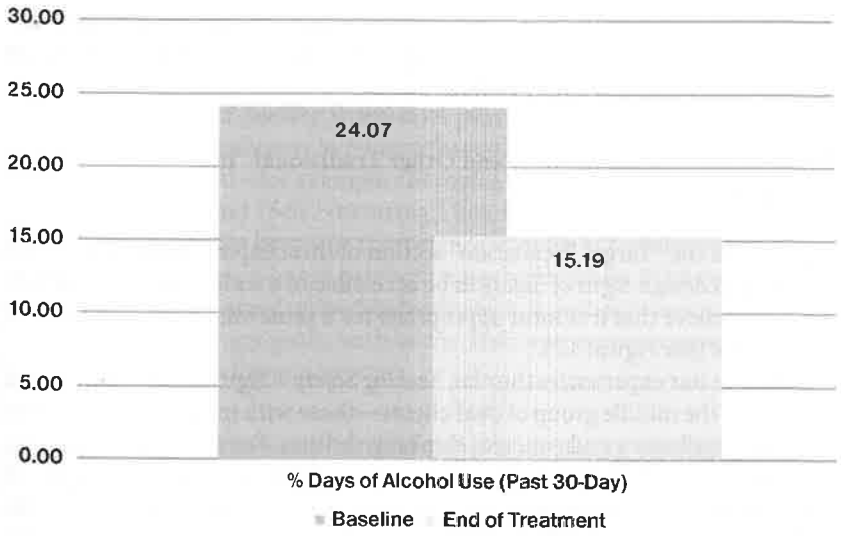


*Figure 3.6* Alcohol use frequency from baseline to end of treatment

posttreatment. Inferential statistics are not reported due to small sample size and subsequent insufficient power to detect a large effect size. However, participants exhibited an 11-point mean reduction on the *PTSD Checklist for DSM-5 (PCL-5)*, a clinically meaningful improvement on this measure (Weathers et al., 2013). Additionally, 45% of the sample evidenced clinically meaningful reduction in percent days of alcohol use—i.e., Reliable Change Index >1.96 (Jacobson, Follette, & Revenstorf, 1984; Ogles, Lunnen, & Bonesteel, 2001)—five of whom attained abstinence by end of treatment.

### *Next Steps*

These encouraging preliminary results suggest that further exploration of this line of research is warranted. Future research efforts, which include randomized clinical trials, will be informed by the rich participant feedback received regarding strategies to further improve *Signs of Safety* materials for a professional-quality final version. This research would allow comparison of the efficacy of *Signs of Safety* between subgroups of deaf people—for example, comparing the success of this approach with Deaf sign-fluent versus Deaf language-dysfluent individuals. Once evidence of efficacy is well-established and *Seeking Safety + Signs of Safety* is determined to be an evidence-based therapy for deaf individuals, the goal is to disseminate *Signs of Safety* free-of-charge to any interested Deaf mental health clinicians.

More broadly, we hope that the development of *Signs of Safety* will serve as a model for how clinical researchers can successfully conduct randomized

clinical trials within the Deaf community using a participatory approach, setting the stage for investigators to develop additional evidence-based therapies for, and more importantly, *with* Deaf people.

## Limitations of *Signs of Safety* and Other Traditional "talk therapies"

As noted in the "Target Population" section of this chapter, despite our team's attempts to design *Signs of Safety* to be accessible to a wide variety of deaf persons, we believe that it is most appropriate for a somewhat restricted range of deaf people (see Figure 3.7).

Based on our experiences thus far, *Seeking Safety + Signs of Safety* seems best tailored to the middle group of deaf clients—those with minimal-to-moderate language dysfluency and concrete thinking abilities. For the rightmost group, especially individuals whose abstract thinking abilities are quite advanced and who show high levels of insight, *Seeking Safety + Signs of Safety* may initially appear too simple. However, it is then the responsibility of the clinician to deepen the level of dialogue and increase the level of nuance in role plays as they apply to each safe coping skill that is presented. The materials serve as a foundation or starting point for more in-depth exploration and application to the client's life and current problems.

With these two groups covered, this means that there is a subgroup of the deaf population for whom *Seeking Safety + Signs of Safety* is likely not an appropriate match—individuals with severe levels of language dysfluency. We are encountering an increasing number of deaf people, especially in inpatient psychiatric settings, whose first accessible language exposure occurred in their teens, 20s, or even later in life. With appropriate language exposure, these individuals may eventually acquire some basic sign language communication; yet, their overall language and cognitive skills will typically remain in a much more limited range of functioning (see Chapter 7 by Spitz and Kegl in this volume). For example, they may be able to think and communicate about only those objects that are present "here and now," but will struggle to use any form of symbolism or abstract representation, grasp the meaning of abstract concepts, or talk about the past and future in any in-depth way.

This unique clinical population presents a challenge for therapists who are trained in traditional talk therapies, whether cognitive behavioral, psychodynamic, or otherwise oriented. To work with deaf people with severe language

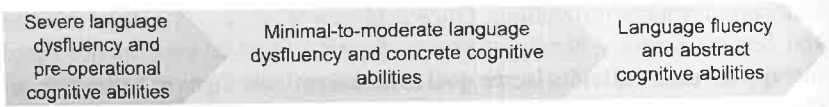


*Figure 3.7* Spectrum of language and cognitive abilities observed among deaf clients in behavioral health treatment settings



dysfluency requires that clinicians think outside the box and step outside of our comfort zone—in essence, letting go of our reliance on language. The *Signs of Safety* toolkit does include client materials that attempt to reduce reliance on any language *and Seeking Safety* does possess some behaviorally-oriented topics that are relatively easy to present through gesture and other nonlinguistic visual approached—for example, the topics of "Grounding," "Taking Good Care of Yourself," and "Self-Nurturing." Yet, *Seeking Safety + Signs of Safety* still requires moderate language competence in order to be delivered in full, as do most other evidence-based psychotherapy approaches. With regard to the subset of very language-deprived individuals, it is probably more appropriate to focus on pre-therapy goals, such as the ability to express oneself in something approaching a linear narrative.

## Proposed Future Directions for Deaf Behavioral Health Research

Given that available evidence-based psychotherapies are designed for language-fluent populations, we must broaden our schema of "treatment" in order to avoid excluding the population of deaf persons who have been impacted by severe forms of language deprivation. Traditionally, this challenging subpopulation has been managed through the inappropriate prescribing of psychiatric medications or controlling, behavior modification strategies (Glickman, 2007). In other words, if talk therapy is not a feasible option—even in its most behavioral, concrete form—then the only remaining tools to manage mood instability or behavior concerns are pills and perhaps token economies. This historical approach to treating deaf, severely language-dysfluent individuals is too narrow in scope and does these people a significant disservice. Rather, a number of alternative behavioral health treatments are becoming available and generating evidence of efficacy.

One innovative means for engaging deaf individuals with language dysfluency in psychotherapy is through their senses. Sensory-movement-based interventions are minimally dependent on language and frequently used among clinicians who work with deaf people impacted by language deprivation (Trikakis, Curci, & Strom, 2003). Without the use of language, sensory-movement-based interventions allow anxious patients to feel calm, and depressed, lethargic patients to feel more alert after appropriate intervention.

For example, therapists can provide individuals they serve with sensory items such as essential oils (e.g., lavender oil for treating anxiety, peppermint oil for treating depression and lethargy) and food items (e.g., orange for anxiety, fireball candy for depression) or engage them in movement activities (e.g., stretching for anxiety, push-ups for depression). The sensory input provides the physiological satisfaction needed to alleviate emotional dysregulation, which can be particularly useful for those who struggle to use language to regulate their feelings of distress. The use of such sensory-based treatment interventions was a major component of the treatment model on the

Westborough State Hospital Deaf Unit and was responsible for much of the improvement seen in patient behaviors and unit safety (Trikakis et al., 2003).

Another option in the sensory-movement-based realm, Trauma Center Trauma Sensitive Yoga (TC-TSY) attempts to address core clinical issues of safety, trust, self-efficacy, empowerment, and mind-body awareness (i.e., introspection) via a structured, predictable, non-process-oriented trauma-sensitive yoga class (van der Kolk et al., 2014). One can easily imagine how non-process-oriented yoga could be used to treat deaf people with severe language dysfluency—by relying on facilitator and peer modeling of yoga forms, incorporating visual aids and yoga flashcards to reinforce this modeling, and even using video materials as needed. In fact, the Advocates Deaf services program in Framingham, Massachusetts, offered yoga classes by a Deaf Kripalu-certified instructor for about two years. These classes were very popular, even with some severely language-dysfluent persons. Unfortunately, as with so many such innovative treatment efforts, the clinical team did not collect outcome data to evaluate their program.

Although the developers of TC-TSY conceptualize the model as an adjunctive treatment to be used alongside more traditional psychotherapy approaches (van der Kolk et al., 2014), it does present an interesting opportunity to explore whether such body-based treatments on their own can provide behavioral health symptom relief for deaf people with severe language dysfluency. Other alternative treatment options that do not necessarily require language fluency include, but are not limited to, art therapy, dance/movement therapy, meditation, and wellness/self-care-oriented approaches.

## Conclusion

Once deaf clients are acculturated into a therapeutic way of thinking and are ready to receive treatment, there are no Deaf-accessible evidence-based therapies currently available to them. We anticipate that *Seeking Safety + Signs of Safety* will become the first such evidence-based therapy for therapy-ready deaf people, including those impacted by moderate levels of language deprivation. Additional adaptations of evidence-based talk therapies for deaf clients are desperately needed, especially for the subpopulation of deaf language-dysfluent individuals, who are significantly more underserved and at-risk than those who possess a sufficient first language foundation.

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# 4

# Forensic Evaluation of Deaf Adults with Language Deprivation

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The involvement of deaf people who have significant language deprivation in the complex legal system presents numerous challenges. How can such people's legal rights be protected if the Miranda Warning (aka "police caution" in the UK) is incomprehensible? How can accused people adequately collaborate with their defense attorneys if they cannot express themselves or comprehend legal advice due to language deprivation? How do such individuals fare in prisons when guard directives or public address announcements cannot be understood (even if an interpreter is present, which is rare)? Can language-deprived deaf individuals adequately convey needs or complaints such as illness symptoms or harassment to legal authorities through gesture/mime alone? How can they establish relations with other prison inmates which may be key to protection from exploitation? How can they participate in educational or rehabilitation opportunities which might improve their chances for parole or benefit them after release? These questions are particularly poignant in light of a recent decision by the Supreme Court of Texas (Beeman v Livingston, 2015), which held that Texas prisons are not "public facilities" as defined by applicable laws that would otherwise require prisons to provide reasonable accommodations for persons with disabilities. Thus, deaf inmates in Texas are not legally entitled to reasonable communication accommodations such as sign language interpreters or videophones with which to communicate with persons (including family and attorneys) outside prison.

The presence of deaf people with language deprivation in the legal system is not an infrequent occurrence nor a situation that is easily addressed, even with the assistance of skilled, certified deaf interpreters (CDIs). Oswaldo Martinez, a Salvadoran immigrant with severe language deprivation, was charged with capital murder but has languished in the Virginia legal system since 2005 (Dugan, 2017). According to this *Washington Post* story:

> Unable to read, write or enunciate more than a few small words, Martinez communicates mainly through pantomime, grunts and crude drawings. As