14

Collaborative Assessment Methods

Filippo Aschieri, Arnold A. P. van Emmerik, Carlijn J. M. Wibbelink, and Jan H. Kamphuis

Collaborative assessment methods (CAMs)—working with clients during all phases and aspects of psychological assessment and testing—have a history dating back to the second half of the previous century (Fantini et al., 2022). As early as 1953, Luborsky asked his clients to engage in the interpretations of their testing results. Three years later, Harrower (1956) provided the first documented example of how to engage clients in interpreting their testing responses. For example, she would enlist clients in reflecting on their specific Rorschach responses and relate these to their presenting problems. Baker (1964) pioneered a description of how to provide sensitive and helpful feedback procedures to clients. For example, she stressed the importance of avoiding jargon; tailoring and framing test interpretations in an understandable, usable way for clients; and emphasizing the clients' self-observation skills during the discussion of test results. Approximately 10 years later, Craddick (1975) argued that clinicians should always ask clients at the earliest possible occasion about their goals for testing and frame clients' goals as "assessment questions." A hallmark event was Constance Fischer's (1985/1994) book *Individualizing Psychological Assessment*, which provided the first comprehensive summary of how to use assessment procedures collaboratively. The procedural description of CAMs in books (Fischer, 1985/1994) and manuals (Finn, 1996) has paved the way for subsequent applications and empirical testing of their clinical benefits.

In this chapter, we provide a definition and description of CAMs, illustrate their clinical use by providing excerpts from a case, describe landmark studies and earlier reviews, and present a meta-analytic and qualitative research review on the distal and immediate outcomes of CAMs to the extent that these are available in the literature. We also discuss possible negative effects and harm; diversity considerations; and limitations of the extant research, such as the need for studies of the immediate outcomes of CAMs. We close with training implications and therapeutic practices based on the research evidence.

Definitions

Psychological assessment can be defined broadly as the process of completing formal psychological tests or measures and receiving feedback on the results. CAMs represent a distinct area of psychological expertise that centers around actively involving the client in the meaning-making of the assessment findings and turning the process into a collaborative experience. The meaning-making activities range from clients' involvement

Filippo Aschieri, Arnold A. P. van Emmerik, Carlijn J. M. Wibbelink, and Jan H. Kamphuis, *Collaborative Assessment Methods*
In: *Psychotherapy Skills and Methods That Work*. Edited by: Clara E. Hill and John C. Norcross, Oxford University Press.
 DOI: 10.1093/oso/9780197611012.003.0014

in formulating the goals of the testing to expanding the understanding of their results and articulating new ways of understanding their presenting problems based on a shared understanding of their testing results. CAMs research includes studies on the "bare bones" of assessment (e.g., testing and some form of test feedback with therapeutic intent) as well as studies that examine the efficacy of a full model of assessment based on CAMs.

Applications of CAMs include both structured and semistructured models. Probably best known and researched are Therapeutic Assessment (Fantini et al., 2022), Collaborative Assessment (Aschieri & Vetere, 2020), and Collaborative Assessment and Management of Suicidality (Comtois et al., 2011; Jobes, 2012). CAMs in Therapeutic Assessment are framed within a model of change that integrates emotion-focused methods (Fosha, 2004), a post-modern and narrative approach to the client's identity (Aschieri, 2012), and a psychodynamic (Kamphuis & Finn, 2018) and neurobiological understanding (Finn, 2012) of how therapists and clients co-regulate their emotions during sessions and how this translates to changes in a client's life. CAMs in Collaborative Assessment include more broadly all applications of collaborative principles and methods in the use of testing.

CAMs in Collaborative Assessment and Management of Suicidality have a much more specific and explicit focus: They are designed to engage clients at risk for suicide to identify and to understand and resolve the "drivers" of suicidal ideation as continually assessed by the Suicide Status Form (Jobes et al., 1997). Hence, CAMs as seen in Therapeutic Assessment, Collaborative Assessment, and Collaborative Assessment and Management of Suicidality differ from the traditional information-gathering model of assessment (Finn & Tonsager, 1997), which is more descriptive and prescriptive and is typically unilaterally managed by the assessor.

This chapter, and the focus of our meta-analytic review, is limited to Collaborative Assessment and Therapeutic Assessment because these methods typically involve a limited number of sessions (typically two to five). Collaborative Assessment and Management of Suicidality, on the other hand, as described in several protocols, may take up to 16 weeks of intensive working through. We deem such a lengthy treatment outside the scope of the present chapter. The interested reader is referred to a recent meta-analysis on Collaborative Assessment and Management of Suicidality (Swift et al., 2021).

CAMs are rooted in humanistic and phenomenological psychology principles (Fischer, 2000). Key elements of the method are to collaborate with clients and to emphasize the understanding of how their psychological features interplay with their "lively flux" of experiences (p. 4), with the goal of "not just to describe or classify the person's present state but to identify viable options to problematic comportment" (p. 5). Moreover, CAMs are consistent with a social constructionist approach to therapy in acknowledging the clients as the expert on their own lives (Anderson & Goolishian, 1992). Systemic thinking is also integral to CAMs because the testing aims to understand how clients' problems are adaptations to less-than-optimal contexts of living (Fantini et al., 2013).

The main methods are (a) involving clients in setting their goals for the assessment, (b) engaging clients in discussing how their experiences during the testing phase and the contents of their tests responses reflect their real-life dilemmas, and (c) jointly

understanding how test results and experiences relate to their goals for the assessment and their next steps in life. When clinicians help clients formulate their goals in terms of questions they have about themselves, or about their lives, and about what they wish to learn from the testing, they aim to stimulate the clients' exploratory system and regulate their attachment system. In fact, attachment researchers have explained how the attachment system and the exploration system (i.e., the inborn system that guides novelty-seeking and learning) are reciprocally activated (Mikulincer & Shaver, 2007). Engaging clients in interpreting their testing results can be seen as a social constructivist process to building new knowledge and understanding as a result of the joint efforts of clients (who participate as experts in their lives) and clinicians (who participate as experts in psychological theories and tests). Providing clients with comprehensive feedback on their assessment results can be seen as an example of narrative therapy.

Clinical Description and Indications

Clinicians using CAMs seek to advance the treatment utility of psychological assessment (Kamphuis et al., 2021). Collaborative assessors aim to provide a secure attachment environment by means of collaborative communication, emotional attunement, and repair of disruptions, while engaging clients in becoming curious about themselves and their presenting problems. Collaborative assessors emphasize empathy and stimulate curiosity and openness. Clinicians using CAMs attempt to build epistemic trust (Fonagy & Allison 2014; Kamphuis & Finn, 2018)—an individual's willingness to consider new knowledge coming from others as reliable and relevant, and therefore worth integrating into their lives.

In line with the spirit of collaborative assessment, clinicians monitor clients' reactions during the testing and solicit their views about the course of the testing process. They involve clients in the assessment and enlist them in developing the focus of the assessment in the form of individualized assessment questions. Identifying personal and specific goals for the assessment typically serves to lower anxiety in clients and, conversely, to increase motivation to participate in the sessions.

During the testing phase, collaborative assessors explain the purpose of each test vis-à-vis the client's assessment questions and jointly explore the meaning of the test findings in the context of those questions. Assessors offer emotional and cognitive support to clients while they process new understandings obtained through the collaborative discussion of their results. Such increased understanding can be accompanied by positive emotions (due to a better understanding of unclear issues; Aschieri & Smith, 2012) as well as negative emotions (due to an increased awareness of the problems; Durosini et al., 2017). Fischer (1985/1994) also emphasized using testing sessions to help clients try out and practice "new behaviors" that "branch off" from their usual ways of being. In this way, clients and assessors identify viable next steps that will help them meet their life goals after the assessment is completed.

At the end of the assessment, assessors provide collaborative feedback to support clients in better understanding the origins of their presenting problems. Feedback typically involves connecting test findings to the goals for the assessment and discussing implications for clients' lives. The immediate outcomes of understanding clients'

problems through the lenses of the test results may include more self-compassion, increased coherence of self-understanding, and less shame about problem behaviors.

Unfortunately, to date, there is no specific research that addresses the important question of for whom CAMs work well versus for whom they are less suitable or even contraindicated. Kamphuis and Finn (2018) speculated that contraindications are most likely not well specified by diagnostic categories but proposed instead that the critical variable is transdiagnostic in nature—that is, the client's potential to hold a minimum level of epistemic trust (Kamphuis & Finn, 2018). Typically, this is particularly challenging in patients in (involuntary) forensic practice or with strong paranoid tendencies.

Assessment

Assessment of Collaborative Assessment Methods

Unfortunately, no standardized measures have been developed to systematically assess the presence of CAMs or their ingredients. Such measures are much needed, however, to better assess the immediate outcomes of CAMs and their ingredients. Future research could, for example, operationalize CAMs methods based on Therapeutic Assessment manuals for adult clients (Fantini et al., 2022) and for families with children (Tharinger et al., 2008), and subsequently have trained observers rating the presence and quality of CAMs and their ingredients.

Outcome Assessment

Following Durosini and Aschieri (2021), the measures used to index the immediate and distal outcomes of CAMs can be grouped into three domains: treatment process, symptom reduction, and personal growth.

Treatment process scales include all measures that refer to therapeutic alliance, such as the Alliance scale of the Client Satisfaction Questionnaire–8 (Attkisson & Zwick, 1982) or the Treatment Satisfaction Questionnaire (Pegg et al., 2001). The Assessment Questionnaire (AQ; Finn et al., 1995) includes three scales related to client satisfaction with the assessment process: positive mirroring (12 items; e.g., *The assessment captured the "real" me*), positive relationship with the assessor (12 items; e.g., *The assessor was interested in what I had to say*), and (lack of) negative feelings for the assessment (11 items; e.g., *The assessment made me feel that my life is nothing but problems*).

Symptoms have been measured by scales such as the Symptom Checklist–90-Revised (Derogatis, 1983) and the Demoralization scale of the Minnesota Multiphasic Personality Inventory–2-Restructured Form (MMPI-2-RF, Tellegen & Ben-Porath, 2008/2011). These measures are widely used and well validated, and they typically assess distal outcome.

The AQ (Finn et al., 1995) also includes one scale related to client personal growth: New Self-Awareness (13 items; e.g., *I gained a new understanding of myself*). The

New Self-Awareness scale of the AQ has been used in empirical research on personal growth, and the Self-Esteem Questionnaire has also served this purpose (Cheek & Buss, 1981). The four scales of the AQ constitute a higher order factor, namely how positive the assessment experience was for clients. Reliability was satisfactory (α coefficients in three groups of college students, inpatients, and outpatients were between .79 and .93), and test–retest coefficients varied between .75 and .84. The AQ total score and its scales were not correlated to measures of social desirability, suggesting that its outcomes are not strongly influenced by positive response bias.

Clinical Examples

We report excerpts from the video-recorded assessment of "Ain," a 28-year-old Caucasian cisgender male identifying as heterosexual, who was assessed in Italy. Ain sought assessment following the breakup with his girlfriend, Sabine (Ain and Sabine are pseudonyms).

The first session started with a warm welcome by the clinician (F) and then focused on collaboratively defining Ain's (A) goals for his assessment.

F: So, what goals and questions do you have for this assessment?
A: I don't know really. . . . I just think that after I broke up with Sabine I keep feeling there was something wrong with me.
F: I see, that must be painful.
A: Yes, and I blame myself because it's also my fault that she broke up with me.
F: Mmm, can you say more?
A: You know, I feel somehow bad about this . . . and it's hard to talk about it.
F: Uhm, is there any shame about what you are thinking about?
A: Yes! I feel shame because it's not easy to admit that you have a sexual problem. . . . I have this problem with ejaculation, and lately with Sabine it became almost impossible to make love . . . since I could not hold back for more than a few seconds!
F: Oh yes, and in our culture this problem is really loaded with shame, while, actually, it's a pretty common problem for many male clients I have spoken to.

The assessor immediately tries to enlist the client as an active participant in the assessment. The assessor asks the client to set the goals for the process and works with him to make them more specific. In addition, emotional support, counteracting shame, and mirroring help clients deepen and focus their goals.

F: So, when did this problem with premature ejaculation begin?
A: Hard to say. I always felt a bit clumsy in intimacy with my partners, but it got worse when I decided to leave home and move in with Sabine. Before then our sex life was much better, we had fewer occasions to meet, but they were much more exciting.

Initial clients' goals are fine-tuned through circular questioning (Brown, 1997). This questioning helps transform clients' presenting problems (e.g., "I suffer from premature ejaculation and I need psychological therapy") into contextualized, specific questions

about themselves and their relationships with the world (e.g., "Why did I develop this problem since I left home to live with Sabine?")

In the central part of the assessment, the clinician typically administers psychological testing. The choice of tests reflects the clients' goals for the assessment. Clients are actively engaged in "building connections" between their test responses, their real-life experiences, and their assessment goals (Fantini et al., 2022). For example, clients can discuss and deepen their answers to specific self-report items, or by associating images, thoughts, and emotions to their responses to projective or narrative tests. The assessor uses open-ended questions to explore items from self-report questionnaires and follows up on clients' answers to connect their observations to their assessment questions and real-life experiences. This process usually occurs directly after the completion of a test, to capture the immediate emotional reactions and thoughts of clients during the testing session.

In the case of Ain, his MMPI-2-RF results included—among critical items—"*My sex life is satisfactory* (False)" and elevations on the internalizing psychopathology scales, which pointed to anxiety and depressive symptomatology.

The assessor started expanding Ain's experience related to the item about Ain's sex life:

F: So, you replied false to "My sex life is satisfactory." Could you tell me more about it?
A: Yes, actually I realize that the more I felt pressured to maintain an adult relationship, the more I felt my sex life was unsatisfactory.
F: That must be confusing. And do you have a sense of how this relates to your mood?
A: I never thought about it. Maybe I am more worried than otherwise?
F: This seems to be true from your test results. As you see, these dots indicate your scores on the test. Each dot corresponds to a feature of your psychological functioning. The higher the scores are, the more likely the corresponding psychological features are relevant for you. Is that clear?
A: Yes. What do these elevations mean?
F: These suggest that you have been harboring a lot of anxiety. Does that fit with your experience?
A: Oh yes! Every time Sabine and I were about to make love I felt so much anxiety! And that makes things worse!
F: Of course, how difficult it must have been to approach sex in such an emotional state!
A: Indeed. . . .
F: And let me try to connect this with the sexual problem: Is it possible that this anxiety when you are faced with the sexual problem turns into some type of demoralization or hopelessness?
A: It does. That's exactly how I feel, I have started to think about myself like a failure (Ain cries).
F: I am sorry to hear that. How does it feel to talk about these things with me now?
A: It's painful, really, but it's also the first time I feel I can open up, and I don't feel judged. When I was a child, in my family, whenever I had a problem I felt I had to simply move on as soon as I could, otherwise, my mother would have scolded me.
F: Really? Can you tell me more about that?

A: Yes, since my father passed away, when I was 4 or 5, my mother raised me as a single mother. I have so much gratitude for her for doing it. She made it so I never lacked for anything (Ain keeps describing the sacrifices his mother made to allow him to study and have a nice life).

F: And I wonder if you tried to make things easier for her by keeping your problems to yourself.

A: Yes, also because she never liked to comfort me when I was sad, she told me, "Come on! Do not allow this problem to get you down" . . . she was probably telling me what she was telling herself after my father passed away.

F: That makes sense. But these scores suggest that over the years, you piled up so many negative emotions that you could not process with your mother, and now, these negative emotions can create a vicious cycle with your sex life: The more you feel unsatisfied about your sex life, the more you feel down and blue. And on the other hand, the more you harbor anxiety and hopelessness, the harder it is for you to enjoy intimacy with Sabine.

After scoring the tests, assessors offer their expertise about the meaning of a particular test score, and clients bring their expertise in how that test variable shows up in their lives. For example, Ain's Rorschach was administered and scored according to the Rorschach Performance Assessment System (Meyer et al., 2011), and it revealed an elevation in one area: Oral-Dependent Language (ODL%, indicative of clients "implicitly motivated by dependent needs, related to an underlying dependent trait or a state"; Mihura & Meyer, 2018, p. 7). After the assessor globally explained how the Rorschach is scored, he engaged Ain in discussing the interpretation of ODL%.

F: Now, I would like to tell you about this variable, called Oral-Dependent Language, which is coded whenever you use terms and images that suggest themes of nurturance, needing support or help, oral activity, food, and eating, or birth and fragility . . .

A: (Interrupts the assessor) Oh, I remember, all the "mouths" and the food that I saw in the cards!

F: Yes, believe it or not (smiles) there is a lot of research that connects this variable to people who feel they need more support, more nurturance from their environment, and may not receive it. I wonder if this might be true also for you?

A: Well, it depends, I am a very independent person. (Ain describes his profession and how independent he is in that role) . . . but as we said last time talking about my mother, I realized that during much of my growing up the only person who supported me was my mother.

F: Yes, I remember that too. And I wonder to what extent you felt that Sabine was available for you . . . emotionally.

A: Good question! Initially, it was good because we talked a lot about things, our lives, our problems . . . then she lost her mother, and since then I started to take care of her a lot, particularly early on after we moved in together.

F: Interesting, so it seems that starting to live together made you closer physically, but at the same time, you felt you lost the relationship with your mother and started to feel that Sabine was less available for you emotionally. Am I right?

The assessor and Ain continued to discuss the role of the lack of support that Ain experienced from Sabine in relation to the sexual problem, connecting it to the extent to which he felt alone in the couple and his depression.

At the end of the assessment, CAMs are used to discuss and summarize the assessment findings to provide clients with a clear, accurate, coherent, and compassionate understanding of their initial questions for the assessment. For example,

> Initially you asked me, "Why did I develop this problem since I left home to live with Sabine?" Results from the testing showed that you harbor a lot of painful feelings, which you tried to avoid either by "pushing through" life, and by enjoying the relationship with your mother. Initially, you experienced Sabine as a good partner also because you felt you could rely on her for emotional comfort and support. However, with the decision live together you realized you missed the emotional support you had from your mother, and at the same time you felt that Sabine could not tolerate talking about your problems after the loss of her own mother. So, when you had physical intimacy with Sabine, the negative emotions that you were able to ignore and keep at bay in your everyday life were stirred up, and manifested themselves in the form of the sexual problem. Hence, you found yourself in a vicious cycle of depression, that created problems in your relationship, that increased depression, that in turn made it very hard to have a fulfilling sex life. Does this fit with your experience?"

In the final summary and discussion session that is intended to answer the client's questions, tests results and shared observations are integrated into a case formulation that aims to provide a comprehensive and coherent account—which is still open to change, especially if resulting from the client's input—of the client's struggles and resources (Eells, 2022). In the feedback phase, clinicians using CAMs seek to actively enlist clients to agree, modify, or disagree with the interpretation and integration of their assessment findings. Therapeutic Assessment also includes a careful decision about which parts of the assessment results are important to be shared with the clients and how such sharing should proceed (Finn, 1996). Depending on clients' availability and capacity to integrate new and potentially unsettling information, assessors gradually present a more complete story that constitutes the answer to clients' initial questions.

In the case of Ain, after the assessment ended, he decided to keep working on the long-term effects of his father's loss in further psychotherapy with the same assessor. This is a frequent outcome when clients feel the need for more work and assessors can provide the treatment that the assessment indicated would be useful for clients.

Landmark Studies and Previous Reviews

Finn and Tonsager (1992) conducted a randomized controlled trial in a university counseling center comparing a short version of Therapeutic Assessment (i.e., collection of assessment questions, administration of the MMPI-2, and feedback) to three sessions of examiner attention/supportive psychotherapy (i.e., initial session to talk about presenting problems, one information session on the MMPI-2, and another session to talk about presenting problems or reactions to the study). Participants in the

collaborative test feedback group were provided with MMPI-2–based feedback. A significant and large reduction in self-reported symptomatology (d = .85) and increase in self-esteem (d = .45) were observed for the Therapeutic Assessment group compared to the control condition.

Newman and Greenway (1997) replicated this study and improved it by having the control group also complete the MMPI-2, thus providing a more stringent comparison. Again, the MMPI-2 collaborative feedback group demonstrated a significant reduction of self-reported symptoms and distress at a 2-week follow-up compared to the clients included in the control group (who received delayed feedback; d = .44). Also, clients who received collaborative feedback reported a significant increase in self-esteem immediately following the feedback session compared to the control group (d = .27).

De Saeger and colleagues (2014) compared Therapeutic Assessment with a goal-focused approach specifically designed to motivate clients with severe personality disorders to attend subsequent treatment. Participants receiving Therapeutic Assessment had higher expectations that the treatment they were about to receive would be helpful. These clients also showed higher satisfaction with Therapeutic Assessment and a stronger therapeutic alliance with the Therapeutic Assessment clinician compared to the control condition. Importantly, in this population, Therapeutic Assessment did not lead to reduced symptom severity.

Several meta-analyses on CAMs have been published that partly but not completely overlap with the present research review. Poston and Hanson (2010) and Hanson and Poston (2011) summarized the effect of providing clients with individualized feedback on their testing. In their 2010 article, the authors analyzed effect sizes from 17 studies including a total of 1,496 participants. The effects of providing individualized feedback resulted in better outcomes (d = 0.42) than control conditions (e.g., no feedback or delayed feedback).

Durosini and Aschieri (2021) subsequently performed a meta-analysis that examined exclusively the efficacy of well-defined Therapeutic Assessment with adult clients from clinical settings and included nine studies with a total of 491 participants. The results revealed statistically significant effects of Therapeutic Assessment compared to active control groups on measures of treatment process (g = .46), clients' symptoms (g = .34), and clients' self-enhancement (g = .37). Of note, these effects were obtained in only two or three Therapeutic Assessment sessions. Moreover, moderator analyses showed that the presence of supervision and longer and more complete Therapeutic Assessment did not substantially impact these outcomes. The authors concluded that the most important aspect of Therapeutic Assessment may be its use of respect, collaboration, and empathic understanding of clients, and not so much the exact way in which the assessment is implemented.

Research Review

Like Poston and Hanson's (2010) meta-analytic review, we review studies on Therapeutic Assessment and Collaborative Assessment but extend the search to 2021 and include only studies that involve adult clients in clinical settings (leaving out analogue studies and studies conducted in educational or workplace settings). Our study differs from

the Durosini and Aschieri (2021) review by also including studies on Collaborative Assessment. We include a meta-analytic review and a qualitative review, each separately addressing both the distal and immediate outcomes of CAMs to the extent that these are available in the literature.

Search Strategy and Inclusion Criteria

Assessment utility, *therapeutic assessment*, *collaborative assessment*, *test feedback*, *assessment feedback*, and *test interpretation* were entered as search terms in title or abstract in the PsycInfo, Web of Science, and PubMed databases in May 2021. This electronic search was limited to studies including adults and to publications in languages that at least two authors understood (English, French, Dutch, Italian). We also conducted an informal search using suggestions by selected scholars from Therapeutic Assessment Institute faculty (k = 16 entries) and studies included in the previous meta-analyses from Poston and Hanson (2010; 16 entries) and Durosini and Aschieri (2021; nine entries).

To be included in the meta-analytic review, studies were required to meet the following criteria:

1. Evaluate CAMs with adult clients: Articles involving children and adolescents (e.g., Tharinger et al., 2009) were excluded from the meta-analytic review.
2. Evaluate a form of psychological CAMs: For example, articles on therapeutic assessment in somatic (e.g., Bouche et al., 2020) and neuropsychological (Gruters et al., 2021) settings were excluded.
3. Publication in a peer-reviewed journal: Dissertations, conference presentations, and book chapters were excluded because it was difficult to retrieve them and determine their eligibility.
4. Utilize a between-group design suitable for calculating one or more Cohen's *d* effect sizes: Studies without a control or comparison group were excluded from the meta-analytic review.
5. Measure some aspect of therapeutic benefit or outcome in a clinical sample: For example, studies conducted with healthy students were excluded from the meta-analytic review (e.g., Luzzo & Day, 1999).
6. Utilize authentic test data (i.e., based on actual test interpretation, not pre-canned Barnum-type statements).

Because studies excluded from the meta-analysis could have included something about immediate in-session outcomes that would illuminate the process, we re-examined all studies that were excluded from the meta-analytic review for this possibility, the result of which is described in the Qualitative Research Review section below.

Figure 14.1 summarizes the screening and inclusion process of the meta-analytic review. After removing duplicates, we first screened records by reading the respective titles and abstracts. Two authors (FA and AvE) independently screened all records using Rayyan software (Ouzzani et al., 2016), yielding a 96% agreement (Cohen's k = .70, substantial agreement). All records considered by at least one of the two raters as potentially

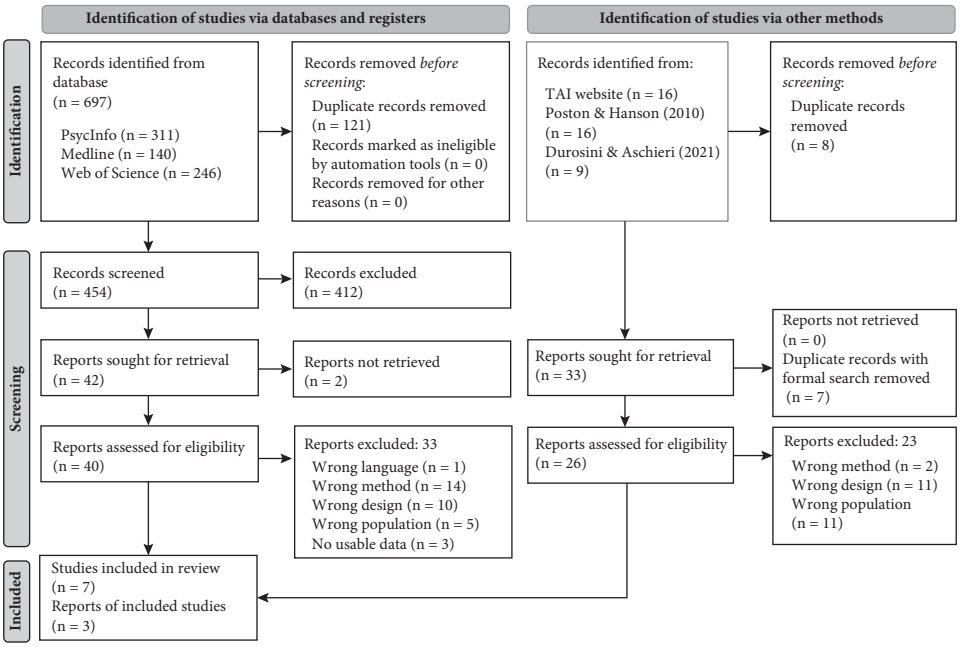

Figure 14.1 Flowchart of study identification, screening, and inclusion.

relevant for the meta-analysis were included in the subsequent full-text screening. The 42 records assessed for full-text screening from the formal literature search and the 33 entries collected through the informal search included seven overlapping articles. After excluding double entries and irretrievable articles, we ended up with a total of 66 articles for full-text screening.

Two of three authors (AvE, JHK, and FA) independently assessed the 66 full-text papers for eligibility, yielding an overall 84% agreement (Cohen's k = .56, moderate agreement). The nine disagreements were resolved by discussion among the raters. Thirty-three papers from the formal search and 23 papers from the informal search did not meet one or more of the eligibility criteria and were excluded, resulting in the initial inclusion of 10 papers. Post hoc discussions led to the further exclusion of one study which investigated a method that was not collaborative (Wild et al., 2007) and to the inclusion of one additional study that met all the inclusion criteria (Pegg et al., 2005).

The final set of included studies thus consisted of 10 records that were used to extract effect sizes (Table 14.1). The quality of the included studies was evaluated using the same criteria used by Durosini and Aschieri (2021), and these ratings are summarized in Table 14.2.

Statistical Analyses

A standardized mean difference (Cohen's d) was calculated to quantify the effect of CAMs compared to a control or comparison condition. We focused on between-group differences on all available outcome points. Cohen's d was calculated by using means

Table 14.1 Description of Studies Included in the Analyses

Study	Sample	*N* (Active/ Control)	Method (No. of Sessions)	Control (No. of Sessions)	Study Quality
Blonigen et al. (2015)	Inpatients in a residential substance use disorder treatment program	26 (17/9)	Individualized assessment questions; individualized collaborative feedback (3)	Collection of background information; self-report testing; 1-month follow-up (2)	4/7
De Saeger et al. (2014)	Inpatients and outpatients in a specialized personality disorders clinic	74 (37/37)	Assessment session; individualized collaborative feedback (4)	Contrasting demoralization and promoting hope by providing psychoeducation on the dynamics of maladaptive behaviors; discussion of the main problem; examination of dilemma of change; reaching a shared reappraisal of the problems; future goal setting (4)	7/7
Essig & Kelly (2013)	Outpatients seeking career counseling in a university counseling center	23 (11/12)	Individualized collaborative feedback (2)	Completion of a career counseling self-report test; gathering information about career indecision; standardized feedback according to the test manual (2)	3/7
L. Miller et al. (2013)	Outpatients with chronic pain seeking counseling with their partners in a university laboratory	47 couples (24/23)	Provision of individualized collaborative assessment and feedback on couples' communication processes around pain (2)	Collection of information on the couple's relationship and pain coping strategies; psychoeducation on chronic pain; 1-month follow-up (2)	5/7
W. Miller et al. (1993)	Drinkers applying for a check-up to find out if their alcohol use is harming them	42 (14/14;14)	2-hour testing session including a range of biomedical, neuropsychological, and alcohol consumption measures; individualized feedback using client-centered feedback style (2); wait list (0)	2-hour testing session including a range of biomedical, neuropsychological, and alcohol consumption measures; individualized feedback using directive feedback style (2)	4/7

Table 14.1 Continued

Study	Sample	*N* (Active/ Control)	Method (No. of Sessions)	Control (No. of Sessions)	Study Quality
Finn & Tonsager (1992)	Outpatients seeking treatment for various disorders in a university-based service	60 (32/28)	Individualized collaborative feedback (3)	Discussion of client's concerns and reactions to the study; 2-week follow-up (3)	5/7
Hilsenroth et al. (2002)	Outpatients seeking treatment at two university-based community clinics	68 (34/34)	Performance-based tests; individualized collaborative feedback (4)	Semistructured clinical interview; self-report testing; administration of performance-based or cognitive tests (3)	6/7
Morey et al. (2010)	Outpatients with borderline personality disorder and suicidal ideation seeking treatment in a university clinic	16 (8/8)	Individualized collaborative feedback incorporated into first two sessions of manual-assisted cognitive–behavior therapy (2)	First two sessions of manual-assisted cognitive–behavior therapy as usual (2)	4/7
Newman & Greenway (1997)	Outpatient students in a university counseling service	60 (30/30)	Collection of individualized questions and testing; individualized collaborative feedback (2)	Semistructured interview about client's presenting problems; collection of individualized questions and testing; delayed individualized collaborative feedback (3)	4/7
Pegg et al. (2005)	Active and veteran military personnel admitted to a traumatic brain injury unit	28 (14/14)	Personalized information-provision sessions discussing neuropsychological evaluation and treatment progress, superimposed on care as usual (3)	General information sessions designed as an attention-placebo condition, superimposed on care as usual (3)	3/7

Table 14.2 Quality Assessment of Studies Included in the Analyses

Study	Detailed Description of Method	Clinicians Received Training in Method	Supervision of Clinicians Providing Method	Sufficient Statistical Power to Find Significant Effects of the Method (≥50 Persons in the Comparison Between Experimental and Control Groups)	Intention-to-Treat Analyses	Randomization Performed by Independent (Third) Party	Assessors Were Blinded to Study Condition (for Self-Reported Outcomes, It Was Assumed That This Criterion Was Met)
Blonigen et al. (2015)	Yes	Yes	No	No	No	Yes	Yes
De Saeger et al. (2014)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Essig & Kelly (2013)	Yes	Yes	No	No	No	No	Yes
L. Miller et al. (2013)	Yes	Yes	No	No	Yes	Yes	Yes
W. Miller et al. (1993)	Yes	Yes	No	No	Yes	No	Yes
Finn & Tonsager (1992)	Yes	Yes	Yes	Yes	No	No	Yes
Hilsenroth et al. (2002)	Yes	Yes	Yes	Yes	Yes	No	Yes

and standard deviations or by transforming a test statistic (*t*-value) or effect size (partial η^2). For one study, two effect sizes were coded as zero because the effects were described as nonsignificant without any statistical information. A positive Cohen's *d* indicated a more positive treatment process, fewer symptoms, or more personal growth in CAMs compared to the control condition.

Most studies reported on more than one effect; therefore, we applied a three-level random-effects model to account for the dependency between effect sizes (Assink & Wibbelink, 2016; Cheung, 2014; Van den Noortgate et al., 2013). A three-level random-effects model takes three sources of variance into account: sampling variance (level 1), the variance between effect sizes from the same study (level 2), and variance between studies (level 3). The overall effect for each outcome type (i.e., treatment process, symptom reduction, and personal growth) was estimated in separate intercept-only models. Next, one-tailed log-likelihood ratio tests were conducted to determine whether significant variation was present at level 2 or level 3. In case there was evidence for heterogeneity in effect sizes, moderator analyses were conducted by extending the model with the potential moderators (i.e., age, gender, ethnicity, sample type, number of sessions, method type, control condition, quality of the study, and time between the method application and assessment). Before conducting the analyses, we checked for outliers ($z < -3.29$ or $z > 3.29$; Tabachnick & Fidell, 2013). No outliers were identified. Furthermore, categorical moderator variables were converted to dummy variables, and continuous variables were centered.

After the overall effects were estimated and moderator analyses were conducted, we tested for possible publication bias by using the trim-and-fill procedure (Duval & Tweedie, 2000a, 2000b). For each outcome type, the symmetry of a funnel plot (a scatter plot of the distribution of each effect size on the *x*-axis against the standard error) was examined. An asymmetric funnel plot, manifested in missing effect sizes on the left side of the plot, indicates possible publication bias. In the case of an asymmetric funnel plot, "missing" effect sizes are imputed to restore the symmetry and an adjusted overall effect size is estimated.

The analyses were performed in R (version 4.0.5; R Development Core Team, 2015), using the "rma.mv" function of the "metaphor" package (Viechtbauer, 2010) and based on guidelines formulated by Assink and Wibbelink (2016). To estimate model parameters, the restricted maximum likelihood procedure was used. In addition, the Knapp and Hartung adjustment (2003) was applied to control for Type I error rates. In all analyses, a p value of $< .05$ was considered statistically significant.

The 10 studies included in the meta-analytic review reported 70 effect sizes and a total sample size of 444 patients (seven studies, 27 effect sizes, $n = 320$ for treatment process; seven studies, 32 effect sizes, $n = 332$ for symptoms; and five studies, 11 effect sizes, $n = 264$ for personal growth), of whom 221 participated in the CAMs and 223 participated in a control or comparison group (the included studies did not systematically report the number of therapists involved).

Outcomes of CAMs

Table 14.3 presents the results for the overall *distal* effect of CAMs on treatment process, symptom reduction, and personal growth. First, a significant medium effect was

found for treatment process (d = 0.59, p = .021), indicating that CAMs were related to a more positive treatment process (assessed by client-reported post-session measures) compared to the control condition. Second, a significant small effect was found for symptoms (d = 0.19, p = .036), suggesting that CAMs were related to reduced symptoms compared to the control condition. Finally, a significant small to medium effect was found for personal growth (d = 0.42, p = .017), suggesting that it enhanced personal growth compared to the control condition.

The three-level meta-analytic approach allowed assessing heterogeneity between effect sizes from the same study (i.e., level 2 variance), as well as heterogeneity between studies (i.e., level 3 variance). For symptoms and personal growth, no significant variation was found on either level (see Table 14.3). For treatment process, no significant variation was found on the second level, whereas significant variation was found on the third level ($\chi^2(1) = 21.70$, $p < .001$). Consequently, moderator analyses were conducted only on treatment processes to examine whether characteristics related to the patient, method, and study could explain the variation between effect sizes.

Table 14.4 presents the results of these moderator analyses. Only method type moderated the effect of CAMs on treatment process, $F(1, 25) = 24.32$, $p < .001$. The effect size for Therapeutic Assessment was significantly smaller than the effect size for Collaborative Assessment ($\Delta d = -1.46$), although both effect sizes were significant (d = 1.89, $p < .001$ vs. d = .43, $p < .001$). Other variables (i.e., age, gender, ethnicity, sample type, number of sessions, quality of the study, and time between CAMs and assessment) did not moderate the effect of CAMs on treatment process.

We examined the possible publication bias for each outcome. Ideally, unpublished materials would have been included in our search; however, it was difficult to retrieve them. The risk of a biased estimate of the overall effect would decrease when unpublished materials are included in a meta-analysis. Therefore, testing for potential publication bias is especially important when only published studies are included. The trim-and-fill procedure is based on the assumption that publication bias produces asymmetric funnel plots with missing effect sizes in the (bottom) left-hand corner. These effects are missing (i.e., not published and, therefore, not included in the meta-analysis) because they were small, nonsignificant, or perhaps reversed effects (Duval & Tweedie, 2000b). By using the trim-and-fill procedure, the degree of asymmetry of the funnel plot is examined and, in case of an asymmetric funnel plot, missing effect sizes are estimated. Figure 14.2 shows that no missing effect sizes were estimated, suggesting the absence of publication bias.

Unfortunately, the studies included in the meta-analytic review only reported distal outcomes and did not provide data on *immediate* outcomes of CAMs.

Summary of Meta-Analytic Review

Based on the current meta-analytic review, CAMs, consisting of on average 2.7 sessions (range from one to four sessions), exert significant positive distal effects on treatment process, patient symptoms, and personal growth compared to a control condition. Method type moderated the distal effects on treatment process outcomes, with smaller effects for Therapeutic Assessment than for Collaborative Assessment. Of note, only

Table 14.3 Overall Effect of Collaborative Assessment Methods on Symptoms, Treatment Process, and Personal Growth Outcomes

Outcome	No. of Independent Studies	No. of ES	Cohen's *d*	95% CI	*p* Value	% Variance Level 1[a]	Variance Level 2[b]	% Variance Level 2[b]	Variance Level 3[c]	% Variance Level 3[c]
Treatment process	7	27	0.591 (0.239)	0.098; 1.083	.021*	19.15	0.000	0.000	0.358***	80.85
Symptoms	7	32	0.186 (0.085)	0.013; 0.360	.036*	84.74	0.000	0.000	0.021	15.26
Personal growth	5	11	0.422 (0.148)	0.092; 0.752	.017*	56.78	0.000	0.000	0.066	43.22

[a]Sampling variance.

[b]Variance between the effect sizes from the same study.

[c]Variance between studies.

CI, confidence interval; ES, effect sizes.

*$p < .05$. ***$p < .001$.

Table 14.4 Results of the Moderator Analyses for Treatment Process Outcomes

Moderator Variables	No. of Independent Studies	No. of ES	Intercept/Mean *d* (95% CI)	β_1 (95% CI)	*F*(*df*1, *df*2)	*p* Value
Patient characteristics						
Age	7	27	0.605 (0.059, 1.151)*	0.011 (–0.050, 0.073)	0.146 (1, 25)	.706
Gender (% male)	7	27	0.608 (0.155, 1.062)*	0.011 (–0.006, 0.028)	1.746 (1, 25)	.198
Ethnicity (% Caucasian)	4	16	0.791 (0.032, 1.549)*	–0.025 (–0.062, 0.011)	2.203 (1, 14)	.160
Sample type						
Outpatient (RC)	4	12	0.270 (–0.285, 0.825)		2.361 (2, 24)	.116
Inpatient	2	9	1.274 (0.496, 2.052)**	1.004 (0.048, 1.959)*		
Mixed	1	6	0.533 (–0.497, 1.563)	0.263 (–0.907, 1.433)		
Method						
No. of sessions	7	27	0.611 (0.049, 1.173)*	0.132 (–0.746, 1.010)	0.096 (1, 25)	.759
Method type					24.324 (1, 25)	<.001***
CA (RC)	1	5	1.890 (1.317, 2.463)***			
TA	6	22	0.428 (0.219, 0.638)***	–1.462 (–2.072, –0.851)***		
Study characteristics						
Quality rating	7	27	0.563 (0.024, 1.101)*	–0.088 (–0.464, 0.288)	0.232 (1, 25)	.634
Time until assessment	7	27	0.503 (–0.027, 1.033)$^{+}$	0.014 (–0.016, 0.045)	0.952 (1, 25)	.339

Note. Control condition (active vs. non-active) could not be included as a moderator because no studies with a non-active control condition included outcomes related to the treatment process.

CI, confidence interval; *df*, degrees of freedom; ES, effect sizes; β_1, estimated regression coefficient; TA, Therapeutic Assessment; CA, Collaborative Assessment; RC, Reference Category.

$^{+}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

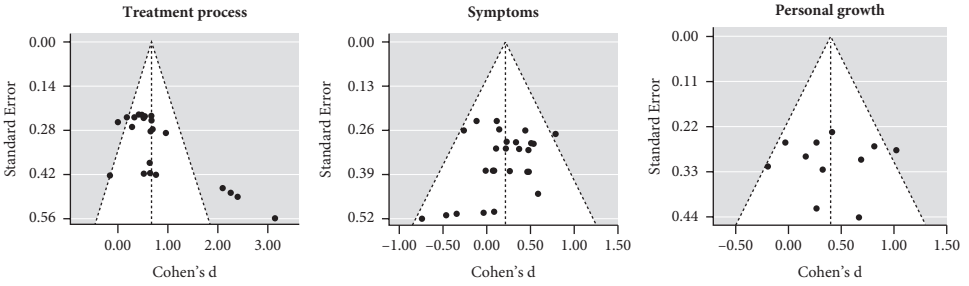

Figure 14.2 Funnel plots for treatment process, symptoms, and personal growth outcomes.

two studies examined Collaborative Assessment, whereas eight studies evaluated Therapeutic Assessment, suggesting that the effect size estimate for Collaborative Assessment may lack precision. In addition, it is possible that the different effect sizes of these methods are better explained by differences between the study populations or other study characteristics than by differences between the methods.

Qualitative Research Review

As noted above, studies that did not meet the inclusion criteria of our meta-analytic research review were re-examined for their relevance to a qualitative research review of the distal and immediate outcomes of CAMs. Table 14.5 summarizes six studies that reported distal and/or immediate outcomes of CAMs but were excluded from the meta-analytic review. This qualitative research review also includes a study that aggregated multiple daily repeated-measures single-case studies of CAMs (Smith et al., 2015). Overall, all six cases had a positive outcome, and none of the clients involved showed negative effects from the interventions.

As can be seen in Table 14.5, CAMs were associated with positive effects on a diverse range of *distal* outcomes that reflect the diversity of the clients' presenting problems and assessment goals. The effect sizes of CAMs in the single-case studies described in Table 14.5 were comparable to an aggregated analysis of nine single-case studies of Therapeutic Assessment as a consultation during ongoing treatment (Smith et al., 2015). This aggregate analysis suggested a moderate effect of CAMs in reducing symptomatic distress (d = –.50) between the baseline phase and the combined intervention and follow-up phases.

Our re-examination of the studies that were excluded from the meta-analytic review did not identify studies that reported on the *immediate* outcomes of specific CAMs ingredients. Three studies (Aschieri & Smith, 2012; Durosini et al., 2017; Fantini & Smith, 2018), however, reported on the trajectory of change that was observed in the clients (see Table 14.5). Although this at best only roughly approximates the concept of immediate outcomes and points to the need for future studies of such outcomes of CAMs (see Limitations of the Research), it gives us an initial glimpse of how outcomes may be associated with specific CAMs ingredients.

Table 14.5 Summary of Repeated-Measures Single-Case Studies

Study	Description of the Client	CAMs Ingredients	Main Distal Outcomes	Trajectory of Change
Aschieri & Smith (2012)	A 21-year-old female with academic problems, low self-esteem, and loneliness.	A formal Therapeutic Assessment that included the definition of assessment goals in the form of individualized questions, and collaborative discussion of the assessment experience and results of the MMPI-2, RIM, and EMP.	Comparing pre-intervention and intervention, the results showed a statistically significant decrease of a composite measure of daily self-reported anxiety, loneliness, love for self and others, and degree to which the client was hard on herself (r = –.55).	A statistically significant improvement of symptoms over time that began with the first session of the Therapeutic Assessment (r = .58).
Smith & George (2012)	A 52-year-old female cancer survivor (stage IV melanoma) with anxiety, depressive symptoms, and emotional volatility, who complained about losing the emotional sturdiness she had felt before the cancer.	A formal Therapeutic Assessment that partially overlapped with long-term psychotherapy. CAMs included definition of assessment goals in the form of individualized questions; collaborative discussion of the assessment experience and results of the EMP and AAP; and a personalized set of personalized sentence stems to be completed by the client.	Comparing pre-intervention and intervention, the results showed a statistically significant decrease of a composite measure of daily self-reported tearfulness, self-efficacy, level of inactivity, and illness fear/anxiety (r = –.61).	Not reported.
Tarocchi et al. (2013)	A 37-year-old female diagnosed with complex post-traumatic stress disorder, who felt desperate, fatigued, powerless, and like a failure. The client experienced a very disruptive and traumatizing family, and abusive couple relationships.	A formal Therapeutic Assessment that included the definition of assessment goals in the form of individualized questions, and collaborative discussion of the assessment experience and results of the AAP and RIM.	Comparing pre-intervention and intervention, the results showed a statistically significant decrease of a composite measure of daily self-reported loneliness, despair, and anxiety (r = –.64).	Not reported.

Durosini et al. (2017)	A 52-year-old male diagnosed with persistent complicated bereavement disorder, major depressive disorder, and post-traumatic stress disorder. Psychological problems emerged after the death of both parents, after which he withdrew from his family and numbed his feelings.	A formal Therapeutic Assessment that included the definition of assessment goals in the form of individualized questions, and collaborative discussion of the assessment experience and results of the MMPI-2-RF, EMP, and storytelling to non-standardized images.	Comparing the intervention and the follow-up, results showed a statistically significant decrease of a composite measure of daily self-reported loneliness, suffering, longing for deceased parents, emotional numbing, and sense of failure ($r = -.49$).	An inverted "U"-shape trajectory, in which a transient period of worsening at the onset of the intervention was followed by a significant improvement ($r = .51$).
Fantini & Smith (2018)	A 22-year-old female university student who suffered from angry outbursts, lack of motivation, feeling distant from others, and being detached from her emotions. The client had witnessed a family secret, which eventually led to the separation of her parents.	A formal Therapeutic Assessment that included the definition of assessment goals in the form of individualized questions, and collaborative discussion of the assessment experience and results of the MMPI-2-RF, RIM, and EMP.	A composite measure of daily self-reported anxiety and fear of losing someone significantly increased after the discussion of the RIM ($r = .80$) and decreased after the last session of the assessment ($r = -.73$)	An inverted "U"-shape trajectory, in which a transient period of worsening at the onset of the intervention was followed by a significant improvement ($r = .73$).
David et al. (2022)	A mid-20s client, born biologically female, who identified as trans-masculine nonbinary, and was assessed midway an ongoing therapy for depression and problematic relationships.	A formal Therapeutic Assessment that included the definition of assessment goals in the form of individualized questions, and collaborative discussion of the experience and results of the AAP, MCMI-IV, CWS, BDI-II, BAI, EMP, and PFS.	The client reported stably high levels of satisfaction, alliance, presence during the course of the sessions, and high satisfaction and new understandings at the end.	Not reported.

AAP, Adult Attachment Projective System (George & West, 2012); BAI, Beck Anxiety Inventory (Beck et al., 1993); BDI-II, Beck Depression Inventory Second Edition (Beck et al., 1996); CAMs, collaborative assessment methods; CWS, Crisi Wartegg System (Crisi & Palm, 2018); EMP, Early Memories Procedure (Bruhn, 1992a, 1992b); MCMI-IV, Millon Clinical Multiaxial Inventory Fourth Edition (Millon et al., 2015); MMPI-2, Minnesota Multiphasic Inventory Second Edition (Butcher et al., 2001); MMPI-2-RF, Minnesota Multiphasic Inventory–2 Revised Form (Tellegen & Ben-Porath, 2008/2011); PFS, Picture Frustration Study (Rosenzweig, 1978); RIM, Rorschach Inkblot Method (Rorschach, 1921).

Two types of change trajectories can be identified. First, Aschieri and Smith (2012) reported a continuous and linear improvement of the client's problems starting after the first session (the definition of assessment goals in the form of individualized questions) and ending in the final session (the final collaborative discussion of the assessment experience and test results), suggesting an incremental effect of successive CAMs ingredients. Second, Durosini et al. (2017) and Fantini and Smith (2018) reported an inverted U-shaped trajectory, in which the client's problems seem to increase during initial CAMs ingredients, to subsequently improve as further CAMs ingredients follow.

The presence of a linear decrease in clients' distress is also suggested by the aggregated analysis of Smith et al. (2015) discussed above. The trajectory of change across participants suggested that Therapeutic Assessment decreased symptoms and distress from baseline onwards, and that the rate of change slowed with time during the follow-up period.

Summary of Qualitative Review

Although the few available repeated-measures single-case studies of CAMs need to be interpreted cautiously, their qualitative review seems to underscore the positive distal effects of CAMs that were observed in the meta-analytic review. Perhaps most important, they point to a clear and urgent need for studies of the immediate outcomes of specific CAMs ingredients.

Possible Negative Effects and Harm

Unfortunately, possible negative effects of CAMs have not been studied to date. Implicit or explicit signs of client discomfort as well as micro-ruptures of the assessor–client relation are possible negative effects of CAMs. However, clinical experience suggests that negative outcomes are rare, although disappointing and even negative outcomes in individual cases have been documented. Some of these outcomes can be attributed to a distorted use of transference–countertransference dynamics between clients and clinicians (Aschieri, 2016), which typically can be addressed through supervision (Smith, 2017). For example, the assessor's identification with the rescuer position (Karpman, 1968) contributed to the failure of a couple's assessment (Finn, 2007).

Open to empirical testing, we hypothesize that CAMs require that clients relax any epistemic hypervigilance and restore epistemic trust. Clients who remain in a state of epistemic hypervigilance will probably not derive personal self-awareness. In contrast, those who adopt an epistemic hypovigilant stance may too readily accept new "insights" that do not really fit them.

CAMs are challenging in settings in which the reasons for the assessment are extrinsic to the clients, such as in forensic and mandatory assessments. Whereas some of these methods (e.g., discussing the informed consent, discussing emotional reactions to testing, providing feedback about the assessment results) have been advocated by some authors to be used also in these contexts (Evans, 2012; Fischer, 1985/1994; Goldenson et al., 2022), other methods are more problematic. For example, routinely engaging

clients in interpreting their testing results could be seen as unreliable because patients may deliberately manipulate these interpretations.

Diversity Considerations

The utility of CAMs has been documented with a wide diversity of clients. These include different genders (including LGBT+ populations; Finn, 2011), age groups (children [Tharinger et al., 2008], adolescents [Smith et al., 2010], and older adults [Durosini et al., 2017]), cultural identities (Fantini, 2016), and nationalities (e.g., United States [Finn & Tonsager, 1992], Dutch [De Saeger, 2014], and Italian [Aschieri & Smith, 2012]). CAMs have also been employed in a variety of clinical settings, including inpatient (Aschieri & Vetere, 2020), outpatient (Finn, 2011), and correctional facilities (Chudzik, 2016).

In 2016, a special section of the *Journal of Personality Assessment* focused on the role of culture in the use of CAMs. In the introduction to the section, Bruce Smith (2016) argued that its flexibility with regard to the selection of assessment procedures (including culturally sensitive tests), along with "assessors constantly ask[ing] clients to help them understand their background and traditions [allows] that culturally situated behaviors and attitudes are not misunderstood or pathologized" (p. 564). Others have speculated that a crucial element of CAMs' suitability for culturally diverse clients is their emphasis on the context for constructing clients' case conceptualizations, integrating "clients' characteristics such as gender, gender identity, sexual orientation, ethnicity, religion, immigrant status, economic background, physical challenges, as well as the relationship between these variables and the client's life context" (Fantini et al., 2022, p. 160). Also, the collaborative nature of CAMs may be refreshing and empowering for some diverse, underprivileged clients, providing them a sense of respect and self-efficacy (Martin, 2018).

There is still a lack of empirical research on the effect of CAMs with diverse populations. At the same time, assessors using CAMs to provide culturally tailored conceptualizations may avoid the risk of stereotypical, erroneous, incomplete, or potentially damaging understandings of clients (Clauss-Ehlers et al., 2019; Finn, 2011; Guerrero et al., 2011; Haydel et al. 2011; Martin, 2018; Mercer, 2011).

Limitations of the Research

Controlled outcome research on CAMs remains relatively scarce and is almost exclusively focused on direct distal outcomes. Of note, only 10 studies and 70 effect sizes were included in this meta-analysis, which warrants some caution in interpreting the results. Hence, more research is needed in this field.

Studies are needed that also investigate the indirect effects of assessment—that is, benefits that may occur from superior treatment selection and treatment planning that were derived from the assessment findings and feedback (Kamphuis et al., 2021). Such research is complex to conduct, although more than three decades ago Hayes and colleagues (1987) suggested powerful research designs to address these challenges.

However, to our knowledge, no study has ever fully employed a manipulated assessment design, in which the effects of one method of assessment (e.g., Therapeutic Assessment) are compared to those of another method (e.g., assessment as usual) in an randomized controlled trial that assesses outcome immediately as well as after subsequent treatment. Another priority for future research is to test putative theoretical mechanisms that explain the treatment utility of CAMs while controlling for the assessors' expectations about the effect of these methods.

Research is also missing on the specific methods used in CAMs and, specifically, in Therapeutic Assessment. Tharinger and Pilgrim (2012) showed the effectiveness of using fables as a means to provide Therapeutic Assessment results to families with children. Future studies should focus on the immediate effect of CAM components with adult clients, such as gathering assessment questions, extended inquiry of test responses, or providing them with written letters containing the results of their individualized assessment. To do such research, it will be important to develop standardized and psychometrically sound measures that assess the quality of the delivery of CAMs and their ingredients.

Finally, another potentially interesting line of research would assess the immediate in-session outcomes and trajectories of change of CAMs. This line of research would build on the published single-case repeated-measures quasi-experiments involving adult clients with a variety of diagnoses that we described above (Aschieri & Smith, 2011; Smith et al., 2015; Tarocchi et al., 2013). Such studies could elucidate how clients change during, and possibly after, CAMs.

Training Implications

Clinicians interested in using CAMs can acquire two distinct sets of skills. First, CAMs rely on a firm knowledge of psychological testing (knowing how to administer and interpret tests). Second, CAMs require clinical skills and relational sensitivity to make test interpretation useful and tailored to clients' needs.

Fantini and colleagues (2022) have detailed the main steps in learning Therapeutic Assessment. Tests are generally taught in undergraduate programs. Further training on tests can be found through test publishers and conferences of professional organizations, such as the Society for Personality Assessment (https://www.personality.org) and the International Society of Rorschach and Projective Methods (https://internationalrorschachsociety.com).

Clinical skills are often acquired in graduate and through post-graduate training. The University of Denver School of Professional Psychology PsyD program offers an emphasis on CAMs, and in Italy the Scuola di Specializzazione in Psicoterapia Integrata-Sanicare (School of Specialization in Integrated Psychotherapy-Sanicare) is teaching CAMs. More short-term training is routinely offered by the Therapeutic Assessment Institute (http://www.therapeuticassessment.com), the European Center for Therapeutic Assessment (Milan, Italy), the Asian-Pacific Center for Therapeutic Assessment (Tokyo, Japan), and the Viersprong Institute for Personality Disorders (Bergen op Zoom, the Netherlands).

Therapeutic Practices

- Choose CAMs when conducting a psychological or psychosocial assessment because they exert, in an average of 2.7 sessions, positive effects on distal treatment processes and outcomes.
- Invite clients to articulate personal questions for their assessment and to tailor it toward their goals.
- Enlist patients in interpreting the assessment findings and provide collaborative feedback.
- Be aware that the respect, collaboration, and empathic understanding of clients may be the primary mechanism of CAMs' effectiveness, not so much the exact way in which CAMs are implemented.
- Use test results collaboratively to help clients develop a different view of themselves, especially one that is more accurate, compassionate, and useful.

References

* **Studies included in the meta-analysis**.

Anderson, H., & Goolishian, H. (1992). The client is the expert: A not-knowing approach to therapy. *Therapy as Social Construction*, *25*, 25–39.

Aschieri, F. (2012). Epistemological and ethical challenges in standardized testing and collaborative assessment. *Journal of Humanistic Psychology*, *52*(3), 350–368.

Aschieri, F. (2016). Shame as a cultural artifact: A call for self-awareness and reflexivity in personality assessment. *Journal of Personality Assessment*, *98*(6), 567–575.

Aschieri, F., & Smith, J. D. (2011). Il test di Rorschach come intervento terapeutico. Risultati di un caso singolo a misure ripetute. In *XIII Congresso Nazionale della Sezione di Clinica e Dinamica* (pp. 176–176). Espress Edizioni.

Aschieri, F., & Smith, J. D. (2012). The effectiveness of therapeutic assessment with an adult client: A single-case study using a time-series design. *Journal of Personality Assessment*, *94*(1), 1–11.

Aschieri, F., & Vetere, C. (2020). Using the Rorschach as a group intervention to promote the understanding of adolescents by staff members in inpatient residential programs. *Rorschachiana*, *41*(2), 120–143. https://doi.org/10.1027/1192-5604/a000127

Assink, M., & Wibbelink, C. J. M. (2016). Fitting three-level meta-analytic models in R: A step-by-step tutorial. *Quantitative Methods for Psychology*, *12*, 154–174. https://doi.org/10.20982/tqmp.12.3.p154

Attkisson, C. C., & Zwick, R. (1982). The Client Satisfaction Questionnaire: Psychometric properties and correlations with service utilization and psychotherapy outcome. *Evaluation and Program Planning*, 5(3), 233–237. https://doi.org/10.1016/0149-7189(82)90074-x

Baker, G. (1964). A therapeutic application of psychodiagnostic test results. *Journal of Projective Techniques & Personality Assessment*, *28*(1), 3–8.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. (1988). Beck Anxiety Inventory. *Journal of Consulting and Clinical Psychology*, *56*, 893–897.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory (BDI-II)* (Vol. 10, No. 3). Pearson.

*Blonigen, D. M., Timko, C., Jacob, T., & Moos, R. H. (2015). Patient-centered feedback on the results of personality testing increases early engagement in residential substance use disorder treatment: A pilot randomized controlled trial. *Addiction Science & Clinical Practice*, *10*(1), 9. https://doi.org/10.1186/s13722-015-0030-9

Bouche, C., Gomes David, M., Salleron, J., Rauch, P., Leufflen, L., Buhler, J., & Marchal, F. (2020). Evaluation of pre-therapeutic assessment in endometrial cancer staging. *Diagnostics*, *10*(12), 1045.

Brown, J. (1997). Circular questioning: An introductory guide. *Australian and New Zealand Journal of Family Therapy*, *18*(2), 109–114. https://doi.org/10.1002/j.1467-8438.1997.tb00276.x

Bruhn, A. R. (1992a). The early memories procedure: A projective test of autobiographical memory (Part I). *Journal of Personality Assessment*, *58*, 1–15.

Bruhn, A. R. (1992b). The early memories procedure: A projective test of autobiographical memory (Part II). *Journal of Personality Assessment*, 58, 326–346.

Butcher, J., Graham, J., Tellegen, A., Dahlstrom, W., & Kaemmer, B. (2001). *Minnesota Multiphasic Personality Inventory–2 (MMPI-2): Manual for administration, scoring, and interpretation* (Rev. ed.). University of Minnesota Press.

Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology*, *41*, 330–339.

Cheung, M. W. L. (2014). Modeling dependent effect sizes with three-level meta-analyses: A structural equation modeling approach. *Psychological Methods*, *19*, 211–229. https://doi.org/10.1037/a0032968

Chudzik, L. (2016). Therapeutic assessment of a violent criminal offender: Managing the cultural narrative of evil. *Journal of Personality Assessment*, *98*(6), 585–589.

Clauss-Ehlers, C. S., Chiriboga, D. A., Hunter, S. J., Roysircar, G., & Tummala-Narra, P. (2019). APA multicultural guidelines executive summary: Ecological approach to context, identity, and intersectionality. *American Psychologist*, *74*(2), 232–244. https://doi.org/10.1037/amp0000382

Comtois, K. A., Jobes, D. A., O'Connor, S., Atkins, D. C., Janis, K., E. Chessen, C., Landes, S. J., Holen, A., & Yuodelis-Flores, C. (2011). Collaborative Assessment and Management of Suicidality (CAMS): Feasibility trial for next-day appointment services. *Depression and Anxiety*, *28*(11), 963–972.

Craddick, R. A. (1975). Sharing oneself in the assessment procedure. *Professional Psychology*, *6*(3), 279–282. https://doi.org/10.1037/0735-7028.6.3.279

Crisi, A., & Palm, J. A. (2018). *The Crisi Wartegg System (CWS): Manual for administration, scoring, and interpretation*. Routledge

David, R. M., Carroll, A. J., & Smith, J. D. (2022). Virtual delivery of therapeutic assessment: An empirical case study. *Journal of Personality Assessment*, *104*(3), 417–427.

Derogatis, L. R. (1983). *SCL-90-R, administration, scoring, and procedure manual–II for the R(evised) version and other instruments of the psychopathology rating scale series*. Clinical Psychometric Research.

*De Saeger, H., Kamphuis, J. H., Finn, S. E., Smith, J. D., Verheul, R., van Busschbach, J. J., Feenstra, D. J., & Horn, E. K. (2014). Therapeutic assessment promotes treatment readiness but does not affect symptom change in patients with personality disorders: Findings from a randomized clinical trial. *Psychological Assessment*, *26*, 474–483. doi:10.1037/a0035667

Durosini, I., & Aschieri, F. (2021). Therapeutic assessment efficacy: A meta-analysis. *Psychological Assessment*, *33*(10), 962–972. https://doi.org/10.1037/pas0001038

Durosini, I., Tarocchi, A., & Aschieri, F. (2017). Therapeutic assessment with a client with persistent complex bereavement disorder: A single-case time-series design. *Clinical Case Studies*, *16*(4), 295–312.

Duval, S., & Tweedie, R. (2000a). A nonparametric "trim and fill" method of accounting for publication bias in meta-analysis. *Journal of the American Statistical Association*, *95*, 89–99. https://doi.org/10.1080/01621459.2000.10473905

Duval, S., & Tweedie, R. (2000b). Trim and fill: A simple funnel plot-based method of testing and adjusting for publication bias in meta-analysis. *Biometrics*, *56*, 455–463. https://doi.org/10.1111/j.0006-341X.2000.00455.x

Eells, T. D. (Ed.). (2022). *Handbook of psychotherapy case formulation*. Guilford.

*Essig, G. N., & Kelly, K. R. (2013). Comparison of the effectiveness of two assessment feedback models in reducing career indecision. *Journal of Career Assessment*, *21*(4), 519–536. https://doi.org/10.1177/1069072712475283

Evans, F. B. (2012). Therapeutic assessment alternative to custody evaluations: An adolescent whose parents could not stop fighting. In S. E. Finn, C. T. Fischer, & L. Handler (Eds.), *Collaborative/Therapeutic Assessment: A casebook and guide* (pp. 357–378). Wiley.

Fantini, F. (2016). Family traditions, cultural values, and the clinician's countertransference: Therapeutic Assessment of a young Sicilian woman. *Journal of Personality Assessment*, *98*(6), 576–584.

Fantini, F., Aschieri, F., & Bertrando, P. (2013). "Is our daughter crazy or bad?" A case study of Therapeutic Assessment with children. *Contemporary Family Therapy*, *35*(4), 731–744.

Fantini, F., Aschieri, F., David, R. M., Martin, H., & Finn, S. E. (2022). *Therapeutic Assessment with adults: Using psychological testing to help clients change*. Routledge.

Fantini, F., & Smith, J. D. (2018). Using R-PAS in the therapeutic assessment of a university student with emotional disconnection. In J. Mihura & G. Meyer (Eds.), Using the Rorschach Performance Assessment System (R-PAS) (pp. 138–157). Guilford.

Finn, S. E. (1996). *Manual for using the MMPI-2 as a therapeutic intervention*. University of Minnesota Press.

Finn, S. E. (2007). *In our clients' shoes: Theory and techniques of Therapeutic Assessment*. Erlbaum.

Finn, S. E. (2011). Therapeutic Assessment "on the front lines": Comment on articles from West Coast Children's Clinic. *Journal of Personality Assessment*, *93*(1), 23–25. https://doi.org/10.1080/00223891.2011.529007

Finn, S. E. (2012). Implications of recent research in neurobiology for psychological assessment. *Journal of Personality Assessment*, *94*(5), 440–449.

Finn, S. E., Schroeder, D. G., & Tonsager, M. E. (1995). *The Assessment Questionnaire–2 (AQ-2): A measure of clients' experiences with psychological assessment* [Unpublished manuscript]. Center for Therapeutic Assessment.

*Finn, S. E., & Tonsager, M. E. (1992). Therapeutic effects of providing MMPI-2 test feedback to college students awaiting psychotherapy. *Psychological Assessment*, *4*, 278–287. doi:10.1037/1040–3590.4.3.278

*Finn, S. E., & Tonsager, M. E. (1997). Information-gathering and therapeutic models of assessment: Complementary paradigms. *Psychological Assessment*, *9*(4), 374–385.

Fischer, C. T. (1994). *Individualizing psychological assessment*. Routledge. (Original work published 1985)

Fischer, C. T. (2000). Collaborative, individualized assessment. *Journal of Personality Assessment*, *74*(1), 2–14.

Fonagy, P., & Allison, E. (2014). The role of mentalizing and epistemic trust in the therapeutic relationship. *Psychotherapy*, *51*(3), 372–380.

Fosha, D. (2004). "Nothing that feels bad is ever the last step": The role of positive emotions in experiential work with difficult emotional experiences. *Clinical Psychology & Psychotherapy*, *11*(1), 30–43.

George, C., & West, M. (2012). *The Adult Attachment Projective Picture System*. Guilford.

Goldenson, J., Brodsky, S. L., & Perlin, M. L. (2022). Trauma-informed forensic mental health assessment: Practical implications, ethical tensions, and alignment with therapeutic jurisprudence principles. *Psychology, Public Policy, and Law*, *28*(2), 226–239. https://doi.org/10.1037/law0000339

Gruters, A. A., Christie, H. L., Ramakers, I. H., Verhey, F. R., Kessels, R. P., & de Vugt, M. E. (2021). Neuropsychological assessment and diagnostic disclosure at a memory clinic: A qualitative study of the experiences of patients and their family members. *The Clinical Neuropsychologist*, *35*(8), 1398–1414.

Guerrero, B., Lipkind, J., & Rosenberg, A. (2011). Why did she put nail polish in my drink? Applying the Therapeutic Assessment model with an African American foster child in a community mental health setting. *Journal of Personality Assessment*, *93*(1), 7–15. https://doi.org/10.1080/00223891.2011.529002

Hanson, W. E., & Poston, J. M. (2011). Building confidence in psychological assessment as a therapeutic intervention: An empirically based reply to Lilienfeld, Garb, and Wood (2011). *Psychological Assessment*, *23*(4), 1056–1062.

Harrower, M. (1956). Projective counseling—A psychotherapeutic technique. *American Journal of Psychotherapy*, *10*, 74–86.

Haydel, M. E., Mercer, B. L., & Rosenblatt, E. (2011). Training assessors in Therapeutic Assessment. *Journal of Personality Assessment*, *93*(1), 16–22. https://doi.org/10.1080/00223891.2011.529004

Hayes, S. C., Nelson, R. O., & Jarrett, R. B. (1987). The treatment utility of assessment: A functional approach to evaluating assessment quality. *American Psychologist*, *42*(11), 963.

*Hilsenroth, M. J., Ackerman, S. J., Clemence, A. J., Strassle, C. G., & Handler, L. (2002). Effects of structured clinician training on patient and therapist perspectives of alliance early in psychotherapy. *Psychotherapy: Theory, Research, Practice, Training*, *39*(4), 309–323. https://doi.org/10.1037/0033-3204.39.4.309

Jobes, D. A. (2012). The Collaborative Assessment and Management of Suicidality (CAMS): An evolving evidence-based clinical approach to suicidal risk. *Suicide and Life-Threatening Behavior*, *42*(6), 640–653.

Jobes, D. A., Jacoby, A. M., Cimbolic, P., & Hustead, L. A. T. (1997). Assessment and treatment of suicidal clients in a university counseling center. *Journal of Counseling Psychology*, *44*(4), 368–377.

Kamphuis, J. H., & Finn, S. E. (2018). Therapeutic assessment in personality disorders: Toward the restoration of epistemic trust. *Journal of Personality Assessment*, *101*(6), 662–674. doi:10.1080/00223891.2018.1476360

Kamphuis, J. H., Noordhof, A., & Hopwood, C. J. (2021). When and how assessment matters: An update on the Treatment Utility of Clinical Assessment (TUCA). *Psychological Assessment*, *33*(2), 122–132. https://doi.org/10.1037/pas0000966

Karpman, S. (1968). Fairy tales and script drama analysis. *Transactional Analysis Bulletin*, *7*(26), 39–43.

Knapp, G., & Hartung, J. (2003). Improved tests for a random effects meta-regression with a single covariate. *Statistics in Medicine*, *22*, 2693–2710. https://doi.org/10.1002/sim.1482

Luborsky, L. (1953). Self-interpretation of the TAT as a clinical technique. *Journal of Projective Techniques*, *17*, 217–223.

Luzzo, D. A., & Day, M. A. (1999). Effects of Strong Interest Inventory feedback on career decision-making self-efficacy and social cognitive career beliefs. *Journal of Career Assessment*, *7*(1), 1–17. https://doi.org/10.1177/106907279900700101

Martin, H. (2018). Collaborative/Therapeutic Assessment and diversity: The complexity of being human. In S. R. Smith & R. Krishnamurthy (Eds.), *Diversity-sensitive personality assessment* (pp. 278–293). Routledge.

Mercer, B. L. (2011). Psychological assessment of children in a community mental health clinic. *Journal of Personality Assessment*, *93*(1), 1–6. https://doi.org/10.1080/00223891.2011.528741

Meyer, G. J., Viglione, D. J., Mihura, J. L, Erard, R. E., & Erdberg, P. (2011). *Rorschach Performance Assessment System: Administration, coding, interpretation, and technical manual*. Rorschach Performance Assessment System.

Mihura, J. L., & Meyer, G. J. (2018). Introduction to R-PAS. In J. L. Mihura & G. J. Meyer (Eds.), *Using the Rorschach Performance Assessment System (R-PAS)* (pp. 3–22). Guilford.

Mikulincer, M., & Shaver, P. R. (2007). Boosting attachment security to promote mental health, prosocial values, and inter-group tolerance. *Psychological Inquiry*, *18*(3), 139–156.

*Miller, L. R., Cano, A., & Wurm, L. H. (2013). A motivational therapeutic assessment improves pain, mood, and relationship satisfaction in couples with chronic pain. *Journal of Pain*, *14*(5), 525–537. https://doi.org/10.1016/j.jpain.2013.01.006

*Miller, W. R., Benefield, R. G., & Tonigan, J. S. (1993). Enhancing motivation for change in problem drinking: A controlled comparison of two therapist styles. *Journal of Consulting and Clinical Psychology*, *61*(3), 455–461. https://doi.org/10.1037//0022-006x.61.3.455

Millon, T., Grossman, S., & Millon, C. (2015). *Millon Clinical Multiaxial Inventory–IV (MCMI-IV)*. Pearson.

*Morey, L. C., Lowmaster, S. E., & Hopwood, C. J. (2010). A pilot study of manual-assisted cognitive therapy with a therapeutic assessment augmentation for borderline personality disorder. *Psychiatry Research*, *178*, 531–535. doi:10.1016/j.psychres.2010.04.055

*Newman, M. L., & Greenway, P. (1997). Therapeutic effects of providing MMPI-2 test feedback to clients at a university counseling service: A collaborative approach. *Psychological Assessment*, *9*(2), 122–131.

Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan—a web and mobile app for systematic reviews. *Systematic Reviews*, *5*(1), 1–10.

Pegg, P. O., Seel, R. T., & Auerbach, S. M. (2001). *Treatment Satisfaction Questionnaire*. Virginia Commonwealth University.

*Pegg, P. O., Jr., Auerbach, S. M., Seel, R. T., Buenaver, L. F., Kiesler, D. J., & Plybon, L. E. (2005). The impact of patient-centered information on patients' treatment satisfaction and outcomes in traumatic brain injury rehabilitation. *Rehabilitation Psychology*, *50*(4), 366–374.

Poston, J. M., & Hanson, W. M. (2010). Meta-analysis of psychological assessment as a therapeutic intervention. *Psychological Assessment*, *22*, 203–212. doi:10.1037/a0018679

R Development Core Team. (2016). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org

Rorschach, H. (1921). *Psychodiagnostik: Methodik und ergebnisse eines warhrnehmungsdiagnostischen Experiments (deutenlassen von zufallsformen)* (Vol. 2). Bircher.

Rosenzweig, S. (1978). *The Rosenzweig Picture-Frustration (PF) study: Basic manual*. Psychological Assessment Resources.

Smith, J. D. (2016). Introduction to the special section on cultural considerations in Collaborative and Therapeutic Assessment. *Journal of Personality Assessment*, *98*(6), 563–566. https://doi.org/10.1080/00223891.2016.1196455

Smith, J. D. (2017). Introduction to the special section on teaching, training, and supervision in personality and psychological assessment. *Journal of Personality Assessment*, *99*(2), 113–116. https://doi.org/10.1080/00223891.2016.1217873

Smith, J. D., Eichler, W. C., Norman, K. R., & Smith, S. R. (2015). The effectiveness of collaborative/therapeutic assessment for psychotherapy consultation: A pragmatic replicated single-case study. *Journal of Personality Assessment*, *97*(3), 261–270.

Smith, J. D., & George, C. (2012). Therapeutic Assessment case study: Treatment of a woman diagnosed with metastatic cancer and attachment trauma. *Journal of Personality Assessment*, *94*(4), 331–344.

Smith, J. D., Handler, L., & Nash, M. R. (2010). Therapeutic Assessment for preadolescent boys with oppositional-defiant disorder: A replicated single-case time-series design. *Psychological Assessment*, *22*(3), 593–602. https://doi.org/10.1037/a0019697

Swift, J. K., Trusty, W. T., & Penix, E. A. (2021). The effectiveness of the Collaborative Assessment and Management of Suicidality (CAMS) compared to alternative treatment conditions: A meta-analysis. *Suicide and Life-Threatening Behavior*, *51*(5), 882–896.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Allyn & Bacon.

Tarocchi, A., Aschieri, F., Fantini, F., & Smith, J. D. (2013). Therapeutic assessment of complex trauma: A single-case time-series study. *Clinical Case Studies*, *12*(3), 228–245.

Tellegen, A., & Ben-Porath, Y. S. (2011). *Minnesota Multiphasic Personality Inventory–2 Restructured Form: Technical manual*. University of Minnesota Press. (Original work published 2008)

Tharinger, D. J., Finn, S. E., Austin, C. A., Gentry, L. B., Bailey, K. E., Parton, V. T., & Fisher, M. E. (2008). Family sessions in psychological assessment with children: Goals, techniques, and clinical utility. *Journal of Personality Assessment*, *90*(6), 547–558. https://doi.org/10.1080/00223890802388400

Tharinger, D. J., Finn, S. E., Gentry, L., Hamilton, A., Fowler, J., Matson, M., Krumholz, L., & Walkowiak, J. (2009). Therapeutic Assessment with children: A pilot study of treatment acceptability and outcome. *Journal of Personality Assessment*, *91*, 238–244.

Tharinger, D. J., & Pilgrim, S. (2012). Parent and child experiences of neuropsychological assessment as a function of child feedback by individualized fable. *Child Neuropsychology*, *18*(3), 228–241.

Van den Noortgate, W., López-López, J. A., Marín-Martínez, F., & Sánchez-Meca, J. (2013). Three-level meta-analysis of dependent effect sizes. *Behavior Research Methods*, *45*, 576–594. https://doi.org/10.3758/s13428-012-0261-6

Viechtbauer, W. (2010). Conducting meta-analyses in R with the Metafor package. *Journal of Statistical Software*, *36*, 1–48. https://doi.org/10.18637/jss.v036.i03

Wild, T. C., Cunningham, J. A., & Roberts, A. B. (2007). Controlled study of brief personalized assessment-feedback for drinkers interested in self-help. *Addiction*, *102*(2), 241–250.