

Copyright American Psychological Association

Rather than another conceptual book that predigests the nitty-gritty of therapeutic sessions into abstract principles, this one plunges the student experientially into the session, well-armed with pragmatic tools that provide a procedural map showing what to pay attention to, how to frame what one is observing, and how to plan next steps. *Process Coding as Clinical Training: Recognizing In-Session Markers to Promote Better Client Outcomes* emphasizes the importance of keenly observing microprocesses that the student can use on Day 1 with their first client. It represents the epitome of training geared to providing responsive, moment-to-moment personalized care.

—**Hanna Levenson, PhD**, Professor Emerita, Wright Institute, Berkeley, CA, United States; Author of *Brief Dynamic Therapy* (3rd ed.)

This is a wonderful book which brings the fruit of research to bear on improving clinical skills. It guides you in developing the much-needed perceptual skills that are difficult to acquire, but are essential for effective intervention. An invaluable tool to assist clinicians of all orientations in sharpening their clinical skills, it provides a comprehensive, up-to-date view of process research measures and how to use them.

—**Leslie S. Greenberg, PhD**, Distinguished Research Professor Emeritus, Department of Psychology, York University, Toronto, ON, Canada

With this book, three brilliant scholars, renowned researchers, and gifted therapists demonstrate how science and practice can be combined creatively and effectively. Trainees and experienced clinicians will be amazed to see how coding various aspects of therapy sessions can enhance their understanding of crucial moments in therapy, and improve the effectiveness of their interventions in responding to them—a way of learning that is distinct from, but complementary to, supervision and actual practice.

—**Louis G. Castonguay, PhD**, Liberal Arts Professor of Psychology, Pennsylvania State University, University Park, PA, United States

Copyright American Psychological Association

This book is an excellent resource for trainers and supervisors who want to provide specific markers to help trainees learn to recognize good and poor examples of the psychotherapy process.

–**Clara E. Hill, PhD**, Professor of Psychology (Retired), University of Maryland, College Park, MD, United States

A competent therapist is not only skilled in relevant therapeutic techniques but is also able to flexibly apply those skills to a given client, depending on the context, while recognizing what is happening in the room, moment by moment. This outstanding volume translates decades of psychotherapy process research into concrete, teachable skills, showing trainees, supervisors, and clinicians how to detect the subtle cues that turn an intervention into a competent and context-sensitive therapy tailored to a given client. This book provides a much-needed bridge between process research and better clinical practice.

–**Stefan G. Hofmann, PhD**, Codeveloper of Process-Based Therapy and Alexander von Humboldt Professor, Department of Psychology, Philipps-Universität Marburg, Hesse, Germany

Much has been written about the need to close the gap between research and practice. This innovative and important volume approaches this issue by creatively proposing that coding systems used in process research can have an important place in clinical training. In doing so, it represents a significant breakthrough in enhancing effective therapy.

–**Marvin R. Goldfried, PhD**, Distinguished Professor of Psychology (Retired), Stony Brook University, Stony Brook, NY, United States

CONTENTS

Contributors	vii
Introduction	3
<i>Henny A. Westra, Tali Z. Boritz, and Catherine F. Eubanks</i>	
1. Leveraging Process Science to Develop Moment-By-Moment Observational Skills	7
<i>Henny A. Westra, Tali Z. Boritz, and Catherine F. Eubanks</i>	
I. CODING SYSTEMS FOCUSED ON DYADIC PROCESSES	19
2. The Working Alliance Inventory–Observer Version (WAI-O)	21
<i>Timothy Anderson, Adam O. Horvath, and Mia Schmittenberg</i>	
3. The Rupture Resolution Rating System (3RS)	43
<i>Catherine F. Eubanks, Kaitlin M. Williams, and Dustin Phan</i>	
4. The Motivational Interviewing Skills Code 1.1 (MISC 1.1) and the Adapted Client Resistance Code (A-CRC)	71
<i>Alyssa A. Di Bartolomeo and Henny A. Westra</i>	
5. Therapeutic Collaboration Coding System (TCCS)	91
<i>Eugénia Ribeiro and Dulce Pinto</i>	
6. Structural Analysis of Social Behavior (SASB) Interpersonal Gestalt Coding	113
<i>Kenneth L. Critchfield, Caroline Ball, Akiva Gornish, Nina L. J. Rose, Hallie R. Goldman, Eleanor G. Harrison, and Julia E. Mackaronis</i>	

Copyright American Psychological Association

vi Contents

II. CODING SYSTEMS FOCUSED ON CLIENT AND/OR THERAPIST PROCESSES	139
7. Multicultural Orientation Performance Task (MCO-PT)	141
<i>Emma Freetly Porter and Jesse Owen</i>	
8. The Experiencing Scale (EXP)	171
<i>Antônio Pazo Pires, Ana Daniela Aleixo, and Carolina Seybert</i>	
9. Classification of Affective-Meaning States (CAMS)	195
<i>Antonio Pascual-Leone and Florencia Cristoffanini</i>	
10. Assimilation of Problematic Experiences Scale (APES)	219
<i>Isabel Basto, Isabel Caro Gabalda, and William B. Stiles</i>	
11. The Innovative Moments Coding System (IMCS)	241
<i>Miguel M. Gonçalves, João Batista, and João Tiago Oliveira</i>	
12. The Narrative-Emotion Process Coding System (NEPCS)	261
<i>Tali Z. Boritz and Lynne Angus</i>	
13. The Pausing Inventory Categorization System (PICS)	287
<i>Heidi M. Levitt, Javier L. Rizo, and Nicholas A. Pierorazio</i>	
14. Client and Therapist Vocal Quality Measures (CVQ and TVQ)	309
<i>Jeanne C. Watson and Hadas Wiseman</i>	
15. A Measure of Expressed Empathy (MEE)	331
<i>Jeanne C. Watson and Signe Hjelen Stige</i>	
16. Resource-Oriented Microprocess Analysis of Patients (ROMA-P)	351
<i>Christoph Flückiger and Greta Probst</i>	
III. CONCLUSIONS AND FUTURE DIRECTIONS	371
17. Integrating Process Coding Into Clinical Training: Key Considerations and Training Suggestions	373
<i>Tali Z. Boritz, Catherine F. Eubanks, and Henny A. Westra</i>	
18. Conclusions and Future Directions	383
<i>Catherine F. Eubanks, Henny A. Westra, and Tali Z. Boritz</i>	
Index	393
About the Editors	403

1

Leveraging Process Science to Develop Moment-By-Moment Observational Skills

Henny A. Westra, Tali Z. Boritz, and Catherine F. Eubanks

Does learning to code psychotherapy process make you a better therapist? This idea has been suggested by many over the years (Binder & Strupp, 1997; Pascual-Leone & Andreescu, 2013; Wu & Levitt, 2020), but it has never been systematically tested or realized on the training front. Psychotherapy process coding is a systematic way of studying how therapy works by observing, categorizing, and analyzing what happens moment-to-moment within psychotherapy sessions. Process coding involves the application of structured rating systems or coding manuals to psychotherapy session recordings (e.g., audio recordings, video recordings, or transcripts) by trained raters. These systems vary in their central focus, measuring a range of client or therapist behaviors, interpersonal dynamics, and emotional or cognitive processes.

There are many reasons to suspect that process coders might make better therapists. Spending hours watching a wide range of therapists work with a diversity of clients is likely to sensitize coders to verbal and nonverbal behavior and potentially translates into more responsive interventions. There are also recent developments in psychotherapy research suggesting that this might be an optimal time to leverage the insights and practices of process science to bolster psychotherapy training. These developments include: (a) routinely collecting and integrating client feedback (Lambert et al., 2018), (b) enhancing responsiveness (Stiles & Horvath, 2017) by, for example, identifying evidence-based

<https://doi.org/10.1037/0000513-002>

Process Coding as Clinical Training: Recognizing In-Session Markers to Promote Better Client Outcomes, H. A. Westra, C. F. Eubanks and T. Z. Boritz (Editors)

Copyright © 2027 by the American Psychological Association. All rights reserved.

strategies for personalizing or tailoring treatment for specific clients (e.g., Constantino et al., 2013), and (c) deliberate practice for therapeutic skill development and maintenance (Miller et al., 2020; Rousmaniere et al., 2017). Training that enhances process sensitivity and responsiveness seems ideally positioned to advance these important goals.

PROCESS AS FEEDBACK: AN EARLY DETECTION AND WARNING SYSTEM

Greenberg and Pinsof (1986) argued that the process of therapy can be seen as a chain of states or suboutcomes (“little ‘o’ outcomes”) that are linked together on the pathway to ultimate outcome (“big ‘O’ outcomes”). Others have similarly argued that outcome information is embedded in the process of therapy *as it is unfolding* (e.g., Kiesler, 1973; Rosen & Proctor, 1981; Safran et al., 1988). The first psychotherapy process researcher, Carl Rogers (1958, 1965), recognized that the efficacy of therapist responses could be immediately ascertained based on how the client responded in the next moment(s). These process signals provide outcome alerts in real time and, if recognized by the therapist, can help therapists differentiate productive from unproductive process and shape their subsequent interventions. This kind of immediately available outcome data is key to the development of expertise.

From the science of expertise (Ericsson & Pool, 2016), we know that the development of mastery requires information relevant to an important outcome to be immediately available if it is to be useful in shaping skill development. In this way, the linkages between behavior and outcome are clear; the longer the space between behavior and outcome, the more obscure the connection becomes. In the case of psychotherapy, outcome information is typically only received after the fact—often only after a treatment concludes. Some have argued that this makes expertise in psychotherapy impossible to acquire since we cannot accurately evaluate the efficacy of our in-session behaviors or their contributions to clients’ outcomes (Tracey et al., 2014). In this regard, routine outcome monitoring (ROM), which brings outcome information forward to the session level and provides important early alerts as to whether the case is headed for a positive or negative eventual outcome, represents a major advancement, as it narrows the gap between in-session behavior and outcome. Interestingly, while ROM has proven helpful for alerting failing cases, it has not necessarily resulted in improved therapist skill (Miller et al., 2013). Perhaps this is because even session-level (and more global) feedback is too distal to promote responsiveness in the moment.

In the article “Developing Expertise in Psychotherapy: The Case for Process Coding as Clinical Training,” Westra and Di Bartolomeo (2024) argue that process coding teaches coders to observe empirically supported processes *as they are unfolding* and therefore may be tantamount to “ROM in real time.” For example, a therapist who is systematically trained to detect signals of alliance

rupture (or any other marker of productive or unproductive processes) can then routinely monitor for these signs of engagement or disengagement and then respond accordingly. Indeed, therapists can be sensitized to seeing process as feedback, seeing the connections between therapist maneuvers and client responses as they are occurring. For example, Olson et al. (2023) demonstrated that when therapists used demand behaviors (i.e., utterances that are directive and solution-oriented) instead of support behaviors (i.e., utterances intended to understand and accept clients) in response to instances of client counter-change talk, this significantly predicted poorer client outcomes up to one year post treatment. In another interesting study, Cooper et al. (2023) asked a group of randomly sampled undergraduate and graduate students to respond as the client to a series of video vignettes that included a mixture of therapist responses considered “error” versus “correct” responses to ambivalence. Correct responses were considered ones which captured the client’s reluctance to change and therapist errors failed to reflect this and often reflected only the pro-change portion of the ambivalence. Cooper et al. found that the probability of client resistance following therapist error responses was 70% compared to only 6% following correct therapist responses.

The central point here is that within specific contexts (e.g., within the context of markers of negative interpersonal process) client behavior is predictable to some degree. Using this information to influence therapist behavior can therefore make expertise possible to acquire. From this perspective, training therapists in process coding, using established systems that have demonstrated empirical links between specific processes and outcomes, can help them learn to see and integrate these contingencies into their practice. Indeed, this micro level of ROM and responsiveness may represent the “missing link” in the development of therapeutic expertise.

MAGNIFYING WEAK OR HIDDEN SIGNALS: ENHANCING THERAPISTS’ ABILITIES TO SEE AND RESPOND

While attuning to microprocesses can help therapists adjust their in-session behavior, these signals are often obscure and easy to miss. In the case of negative process, client deference (Rennie, 1994) combined with therapist positivity biases (Macdonald & Mellor-Clark, 2015) can make it difficult to identify client dissatisfaction or when treatment is “off course.” Therapists are typically better at accurately perceiving client positive reactions than negative reactions (Hill et al., 1992). Even when therapists are aware that clients often hide reactions, they are not able to detect when clients are doing so. This is partly because the successful detection of negative reactions often involves picking up on the absence of cues (Hill & Stephany, 1990). In many cases, these signals are missed simply because to date, detecting such cues has not been systematically emphasized in training, and therefore trainees have not had the opportunity to hone their attunement skills.

Training in nonverbal sensitivity—a construct prominent and strongly supported in other literatures such as social psychology (e.g., Hall et al., 2009)—has

been relatively neglected in clinical training. Nonverbal sensitivity refers to the ability to decode affective cues conveyed nonverbally. An inflection, a quick response, silence, or an interruption all talk loudly, if one is oriented to attending to, decoding, and hearing such messages. In fact, it is argued that nonverbal communication is more reliable than words for detecting interpersonal messages since it is more resistant to attempts to censor communication (Ambady, 2010). Nonverbal sensitivity is a prerequisite for attunement, which, in turn, is a prerequisite for empathy, appropriate responsiveness, and alliance formation. Indeed, being able to pick up early signals of emotion, has, for example, been linked to improved alliance, early rupture detection, and improved attachment (Abargil & Tishby, 2022). This is perhaps not surprising: The literature suggests that caregiver attunement is at the heart of secure attachment (Beebe & Lachmann, 2013). Attuned caregivers notice and respond to signals of distress, dissatisfaction, and disconnection—even when they are subtle and (almost) imperceptible to others. To the extent that therapy involves a therapist noticing what others have failed to notice (e.g., caregivers in the past, significant relationships in the present), the experience of attunement may also be an important corrective relational experience. Tuning in to another provides validation of their inner world and gives them permission to explore and become curious about that inner world.

Despite the fact that therapists frequently miss subtle, often covert in-session signals, many such signs have been shown to predict outcome. For example, in the case of negative process, Hara et al. (2015) found that therapist post-session ratings of their clients' resistance in that session were unrelated to outcome, whereas trained observer ratings of those same sessions were highly predictive of posttreatment outcome, even up to one-year follow-up. Findings suggest the importance of being able to detect these processes, and systematic process recognition training can make this possible. While process coding may focus on the identification of specific processes (e.g., markers of disengagement, emotional arousal), coding *any* process may yield the benefit of increasing sensitivity and attunement to one's clients (i.e., noticing more or better). Moreover, once one is trained to see such signals, it is difficult to *stop* seeing them. As Chow et al. (2025) notes, "practice makes permanent." Anecdotally, a common observation among those who train process coders is that with coding experience, trainees typically begin to see increasingly subtler versions of the markers—creating greater (and earlier) opportunities for responsive process intervention (e.g., Schanche et al., 2019).

While our discussion so far has focused most prominently on the contribution of process coding to enhanced process recognition, process coding can also enhance the timing and flexibility of therapists' responses (Stiles & Horvath, 2017). Psychotherapy process is clearly not homogenous in its significance to outcome (Greenberg, 1986); some moments/events are far more consequential than others. And the same action can be helpful or hindering depending on the context of the response. For example, directiveness in the context of high reactance disengages clients while the same action engages clients low in

reactance (Beutler et al., 2011). Similarly, well-timed empathy is far more impactful in the context of resistance than at randomly selected times (Aviram et al., 2016). It is becoming clearer and clearer that “doing the right thing at the right time”—that is, detecting and adjusting to the fluctuating context—is a vital component of effective clinical intervention. These *if-then* contingencies are increasingly emphasized by psychotherapy researchers and in models such as the context-responsiveness framework (Constantino et al., 2013). However, while the “if” side of this equation has been well articulated and robustly researched (e.g., in the form of specific process markers associated with empirical outcomes), the “then” side of this equation remains somewhat elusive (Boswell, 2024).

PROCESS CODING AS A METHOD FOR SKILL DEVELOPMENT AND MAINTENANCE

Many of the methods used to train process coders can support and enhance therapeutic skill development and maintenance. Deliberate practice, which has become increasingly prominent and emphasized in psychotherapy training (Ericsson & Pool, 2016; Rousmaniere et al., 2017), is at the heart of many of the methods and training practices used in process coding. For example, when learning to process code, coders typically start by reviewing multiple iterations of the process of interest (usually transcripts or audio/video recordings) in actual or simulated/recreated therapy interactions. Next, novice coders work with more experienced coders and observe and participate in coding with them, all the while receiving continual feedback about their performance (e.g., whether they accurately detected or missed a process signal). In some cases, coders even engage in objective tests to determine the accuracy of their process recognition, such as through coding “gold standard” cases.

A similar training practice can be applied with trainees engaged in psychotherapy training. Coding material can also be titrated, and training tailored to match the trainee’s developmental level, moving from clear and easily observable processes to more subtle and complex ones (Wilcox, 2024). Process coding can also be applied to therapy sessions of others or to one’s own therapy recordings. Watching and analyzing therapy videos is also highly engaging for therapists and, when applied to one’s own therapy recordings, can be useful for identifying areas where skill development is needed that can then become the focus for further deliberate practice.

Another practice of process coding training that can enhance psychotherapy training is allowing trainees to practice with clinical material outside of being in actual therapy sessions, through the use of simulations (video, recreations, etc.). There are a number of advantages to engaging with therapy sessions in this way. Both deliberate practice exercises and process coding create space for trainees to slow the process of therapy, allowing them to contemplate and experiment in a “low-stakes environment.” This can be especially helpful in situations that evoke

high anxiety and reactivity (such as in moments of negative or ambiguous interpersonal process) and therefore can provide trainees with an opportunity to practice “performing under pressure” (Muran & Eubanks, 2020) without the added burden of needing to respond to an actual client. This type of slowed-down activity allows coders and trainees to attend to and repeatedly focus on specific microprocesses in a way that enhances their recognition when they are back in the flurry of a fast-paced therapy session. It should also assist in replacing anxiety and avoidance with an attitude of curiosity, as the trainee learns to decenter and regulate their own reactions and instead attend to the client and the unfolding process. Finally, through the application of process coding systems, trainees can also learn by watching more experienced therapists demonstrate specific techniques or behaviors or navigate tricky situations. Such simulations of good practice can also be further coded by trainees to uncover moment-to-moment process signals and therapist adjustments.

WHAT IS THE EVIDENCE FOR INTEGRATING PROCESS RECOGNITION INTO CLINICAL TRAINING?

Currently, research suggests that nonverbal sensitivity is associated with positive relational characteristics and clinical outcomes. The thin-slicing literature in social psychology, which refers to the ability to make accurate inferences about people or situations quickly and with minimal amounts of information, supports major relational benefits for those with heightened nonverbal sensitivity (Ambady, 2010). Numerous experimental studies suggest that nonverbal interpersonal sensitivity is correlated with empathy, open-mindedness, personal adjustment, positive interpersonal relationships, and supervisor-assessed competence in several professions (see Hall et al., 2009 for a review). In clinical contexts, physicians and medical students scoring higher on nonverbal sensitivity have superior attendance and satisfaction among their patients (DiMatteo et al., 1986) and are rated as more compassionate and engaged by standardized patients (Hall et al., 2009). Within psychotherapy, greater therapist accuracy on a test for detecting subtle emotional cues was associated with numerous indicators of productive emotion processes, lower frequency and intensity of alliance ruptures, and better clinical outcomes (Abargil & Tishby, 2022).

To date, a few direct studies have attempted to evaluate the benefits of integrating psychotherapy process coding into clinical training. For example, Schanche et al. (2019) had students participate in training and then coding of emotional processes in videotapes of expert psychotherapists (including use of the Experiencing Scale, see Chapter 8, this volume, and a vocal quality scale, see Chapter 14, this volume). Trainees reported feeling more attuned to subtle emotional cues and having increased emotional awareness. They also reported

ancillary benefits such as increased tolerance for strong emotions, greater courage to approach and comment on emotions as a therapist, and increased humility through coding experienced therapists and finding that they, too, fumble. Similarly, after learning to code therapy sessions using the Innovative Moments Coding System (see Chapter 11, this volume), trainees reported that their attention was honed to perceive clients' emerging changes (Fernández-Navarro et al., 2024), including attention to linguistic cues, even minimal ones, that otherwise might have been dismissed. The authors concluded that the coding of therapy sessions from an observer's point of view could lead clinician-researchers to a distinct kind of reflection during the therapy process, complementing preexisting clinical tools or techniques.

In an effort to teach undergraduate students enrolled in a psychotherapy skills course to discriminate between productive and unproductive client processes, Pascual-Leone et al. (2012) trained fourth-year undergraduate students in a range of psychotherapy process measures. An analysis of students' personal narratives of their experiences demonstrated that over the semester of training, students perceived changes on both a professional level (i.e., skill acquisition) and a personal level (i.e., self-growth). In a similar study with graduate students, Pascual-Leone and Andreescu (2013) taught students to apply a range of psychotherapy process measures (e.g., narrative process coding, vocal quality, client experiencing, core conflictual relationship themes) and then evaluated their performance across a series of single sessions with volunteer clients. Trainees reported improvements in confidence, self-efficacy, and their ability to manage sessions, as well as reductions in their anxious self-awareness. However, client ratings of these same sessions did not reflect any changes in quality.

In the only randomized trial to date of process coding that we are aware of, Hodorowicz et al. (2020) randomly assigned a small group of social work trainees to either live supervision, involving a small-group experiential learning interaction with standardized client actors and in-the-moment guidance from a supervisor, or "coding learning," in which students in a classroom setting were introduced to motivational interviewing (MI) skill development via learning to code motivational interviewing behaviors. Significant improvements in motivational interviewing skills were noted in both groups, as measured by performance in a posttraining clinical interview with a standardized client. The fact that coding training alone, without any direct client contact or even role-plays, resulted in actual skill improvement is intriguing, particularly when considering the advantages for clinical trainees of improving skill in a relatively safe environment (i.e., before actual patient contact).

In summary, the research on integrating psychotherapy process coding is limited but promising. We await and strongly encourage studies that will directly test the proposal that learning to reliably observe process results in improved therapist skill and better client outcomes. It is our hope that this book contributes to and stimulates this line of psychotherapy research.

SUMMARY AND CONCLUSIONS

Psychotherapy process researchers have uncovered and operationalized a wide array of process markers or clinically significant “tells” that forecast treatment outcomes. These efforts have also allowed researchers to differentiate productive from unproductive process. This has often included the identification of subtle or obscured (and therefore often missed) signals that indicate whether therapy is on or off track. When integrated into psychotherapy training, these insights or discoveries can help guide trainees to notice and respond to key moments of therapy that are empirically associated with better clinical outcomes. Training therapists in process coding can complement and enhance psychotherapy training within any theoretical approach or with any client presenting problem, and it can sit alongside good case formulation skills. We also believe that the methods and training practices associated with psychotherapy process coding provide a pedagogical framework that can inform and enhance psychotherapy training. Specifically, we argue that process coding facilitates clinical training through the following pathways:

- *Skill development through deliberate practice:* Sensitivity to verbal and nonverbal psychotherapy process is developed and strengthened through expert feedback on a well-defined target with many opportunities for repetition.
- *A simulated learning environment:* Process coding allows trainees to practice their recognition and responsiveness skills while being free of the pressure of responding to an actual client. Additionally, the stimuli can capture diverse clients and contexts, and complexity/difficulty can be titrated to each trainee’s developmental level. This allows trainees to experiment with different types of responses.
- *Observational learning:* Through the application of process coding systems, trainees can learn by watching more experienced therapists demonstrate specific techniques or behaviors or navigate tricky situations.
- *Appropriate responsiveness:* By learning to observe process, trainees have access to a feedback system “in real time.” Trainees are able to use this information to guide and adjust the nature and timing of their interventions.
- *The ability to evaluate progress in acquiring process recognition and responsiveness skills:* Process coding allows trainees to monitor and evaluate their clinical behavior. This can be done by coding their own therapy videos or “gold standard” therapy videos to ascertain their sensitivity to key processes that differentiate client outcomes.

Learning to code process in psychotherapy has typically been reserved for students in research laboratories who are studying a given therapy process. While process coding is, therefore, typically a research task, a common observation of supervisors is that students engaged in psychotherapy process research tend to acquire a distinct therapeutic advantage over their peers not exposed to

process coding. After many hours of watching and/or listening to therapy session recordings for research purposes, these students are often able to generalize their process recognition skills to their therapy sessions, attuning themselves to the continual flow of data that occurs and unfolds in each moment. In doing so, they can harness this information to guide the timing and effectiveness of their interventions. While this approach is only beginning to be tested as a method of acquiring clinical skills, we hope this book serves to both introduce readers to the array of possible coding systems available and encourage the integration of these into clinical training and research on training.

REFERENCES

- Abargil, M., & Tishby, O. (2022). How therapists' emotion recognition relates to therapy process and outcome. *Clinical Psychology & Psychotherapy*, 29(3), 1001–1019. <https://doi.org/10.1002/cpp.2680>
- Ambady, N. (2010). The perils of pondering: Intuition and thin slice judgments. *Psychological Inquiry*, 21(4), 271–278. <https://doi.org/10.1080/1047840X.2010.524882>
- Aviram, A., Westra, H. A., Constantino, M. J., & Antony, M. M. (2016). Responsive management of early resistance in cognitive-behavioral therapy for generalized anxiety disorder. *Journal of Consulting and Clinical Psychology*, 84(9), 783–794. <https://doi.org/10.1037/ccp0000100>
- Beebe, B., & Lachmann, F. M. (2013). *The origins of attachment: Infant research and adult treatment*. Routledge. <https://doi.org/10.4324/9781315858067>
- Beutler, L. E., Harwood, T. M., Michelson, A., Song, X., & Holman, J. (2011). Resistance/reactance level. *Journal of Clinical Psychology*, 67(2), 133–142. <https://doi.org/10.1002/jclp.20753>
- Binder, J. L., & Strupp, H. H. (1997). “Negative process”: A recurrently discovered and underestimated facet of therapeutic process and outcome in the individual psychotherapy of adults. *Clinical Psychology: Science and Practice*, 4(2), 121–139. <https://doi.org/10.1111/j.1468-2850.1997.tb00105.x>
- Boswell, J. F. (2024). A refreshing and necessary start: Commentary on Westra and Di Bartolomeo (2024). *American Psychologist*, 79(2), 179–181. <https://doi.org/10.1037/amp0001235>
- Chow, D., Lu, S. H. X., Kwek, T., Miller, S. D., Jones, A., Hubble, M. A., & Tan, G. C. Y. (2025). Improving responses to challenging scenarios in therapy: A randomized controlled trial of a deliberate practice training program. *Training and Education in Professional Psychology*, 19(1), 1–13. <https://doi.org/10.1037/tep0000493>
- Constantino, M. J., Boswell, J. F., Bernecker, S. L., & Castonguay, L. G. (2013). Context-responsive psychotherapy integration as a framework for a unified clinical science: Conceptual and empirical considerations. *Journal of Unified Psychotherapy and Clinical Science*, 2(1), 1–20.
- Cooper, M. B., Di Bartolomeo, A. A., Westra, H. A., Olson, D. A., & Boritz, T. (2023). A test of psychotherapists' and nontherapists' recognition of correct and incorrect process in managing client resistance. *Counseling and Psychotherapy Research*, 23(4), 1097–1107. <https://doi.org/10.1002/capr.12653>
- DiMatteo, M. R., Hays, R. D., & Prince, L. M. (1986). Relationship of physicians' nonverbal communication skill to patient satisfaction, appointment noncompliance, and physician workload. *Health Psychology*, 5(6), 581–594. <https://doi.org/10.1037/0278-6133.5.6.581>
- Ericsson, A., & Pool, R. (2016). *Peak: Secrets from the new science of expertise*. Houghton Mifflin Harcourt.

- Fernández-Navarro, P., Silva, J. R., & Batista, J. (2024). What can therapists learn from coding therapy sessions? Interviewing clinicians to explore the case of innovative moments training. *Journal of Constructivist Psychology*, 37(1), 33–43. <https://doi.org/10.1080/10720537.2023.2248531>
- Greenberg, L. S. (1986). Change process research. *Journal of Consulting and Clinical Psychology*, 54(1), 4–9. <https://doi.org/10.1037/0022-006x.54.1.4>
- Greenberg, L. S., & Pinsof, W. M. (1986). Process research: Current trends and future perspectives. In L. S. Greenberg & W. M. Pinsof (Eds.), *The psychotherapeutic process: A research handbook* (pp. 3–20). Guilford Press.
- Hall, J. A., Roter, D. L., Blanch, D. C., & Frankel, R. M. (2009). Nonverbal sensitivity in medical students: Implications for clinical interactions. *Journal of General Internal Medicine*, 24(11), 1217–1222. <https://doi.org/10.1007/s11606-009-1107-5>
- Hara, K. M., Westra, H. A., Aviram, A., Button, M. L., Constantino, M. J., & Antony, M. M. (2015). Therapist awareness of client resistance in cognitive-behavioral therapy for generalized anxiety disorder. *Cognitive Behaviour Therapy*, 44(2), 162–174. <https://doi.org/10.1080/16506073.2014.998705>
- Hill, C., Thompson, B., & Corbett, M. (1992). The impact of therapist ability to perceive displayed and hidden client reactions on immediate outcome in first sessions of brief therapy. *Psychotherapy Research*, 2(2), 143–155. <https://doi.org/10.1080/10503309212331332914>
- Hill, C. E., & Stephany, A. (1990). Relation of nonverbal behavior to client reactions. *Journal of Counseling Psychology*, 37(1), 22–26. <https://doi.org/10.1037/0022-0167.37.1.22>
- Hodorowicz, M. T., Barth, R., Moyers, T., & Strieder, F. (2020). A randomized controlled trial of two methods to improve motivational interviewing training. *Research on Social Work Practice*, 30(4), 382–391. <https://doi.org/10.1177/1049731519887438>
- Kiesler, D. (1973). *The process of psychotherapy: Empirical foundations and systems of analysis*. Aldine.
- Lambert, M. J., Whipple, J. L., & Kleinstäuber, M. (2018). Collecting and delivering progress feedback: A meta-analysis of routine outcome monitoring. *Psychotherapy*, 55(4), 520–537. <https://doi.org/10.1037/pst0000167>
- Macdonald, J., & Mellor-Clark, J. (2015). Correcting psychotherapists' blindsidedness: Formal feedback as a means of overcoming the natural limitations of therapists. *Clinical Psychology & Psychotherapy*, 22(3), 249–257. <https://doi.org/10.1002/cpp.1887>
- Miller, S. D., Hubble, M. A., & Chow, D. (2020). *Better results: Using deliberate practice to improve therapeutic effectiveness*. American Psychological Association. <https://doi.org/10.1037/0000191-000>
- Miller, S. D., Hubble, M. A., Chow, D. L., & Seidel, J. A. (2013). The outcome of psychotherapy: Yesterday, today, and tomorrow. *Psychotherapy*, 50(1), 88–97. <https://doi.org/10.1037/a0031097>
- Muran, J. C., & Eubanks, C. F. (2020). *Performance under pressure: Negotiating emotion, different, and rupture*. American Psychological Association. <https://doi.org/10.1037/0000182-000>
- Olson, D. A., Westra, H. A., Shukla, S., & Di Bartolomeo, A. A. (2023). Therapist responsivity during disagreement in psychotherapy. *Counselling and Psychotherapy Research*, 23(3), 837–849. <https://doi.org/10.1002/capr.12583>
- Pascual-Leone, A., & Andreescu, C. (2013). Repurposing process measures to train psychotherapists: Training outcomes using a new approach. *Counselling and Psychotherapy Research*, 13(3), 210–219. <https://doi.org/10.1080/14733145.2012.739633>
- Pascual-Leone, A., Wolfe, B., & O'Connor, D. (2012). The reported impact of psychotherapy training: Undergraduate disclosures after a course in experiential

- psychotherapy. *Person-Centered & Experiential Psychotherapies*, 11(2), 152–168.
<https://doi.org/10.1080/14779757.2011.648099>
- Rennie, D. L. (1994). Clients' deference in psychotherapy. *Journal of Counseling Psychology*, 41(4), 427–437. <https://doi.org/10.1037/0022-0167.41.4.427>
- Rogers, C. R. (1958). A process conception of psychotherapy. *American Psychologist*, 13(4), 142–149. <https://doi.org/10.1037/h0042129>
- Rogers, C. R. (1965). *Client-centered therapy: Its current practice, implications, and theory*. Houghton Mifflin.
- Rosen, A., & Proctor, E. K. (1981). Distinctions between treatment outcomes and their implications for treatment evaluation. *Journal of Consulting and Clinical Psychology*, 49(3), 418–425. <https://doi.org/10.1037/0022-006x.49.3.418>
- Rousmaniere, T. G., Goodyear, R. K., Miller, S. D., & Wampold, B. E. (Eds.). (2017). *The cycle of excellence: Using deliberate practice to improve supervision and training*. Wiley.
- Safran, J. D., Greenberg, L. S., & Rice, L. N. (1988). Integrating psychotherapy research and practice: Modeling the change process. *Psychotherapy: Theory, Research, Practice, Training*, 25(1), 1–17. <https://doi.org/10.1037/h0085305>
- Schanche, E., Hjeltnes, A., Nielsen, G. H., Stige, S. H., & Stiegler, J. R. (2019). “Nothing is just smooth or perfect”: What can students learn from intensively reviewing psychotherapy conducted by experienced therapists whilst being focused on emotional processes? *Counselling and Psychotherapy Research*, 19(4), 366–376. <https://doi.org/10.1002/capr.12211>
- Stiles, W. B., & Horvath, A. O. (2017). Appropriate responsiveness as a contribution to therapist effects. In L. G. Castonguay & C. E. Hill (Eds.), *How and why are some therapists better than others? Understanding therapist effects* (pp. 71–84). American Psychological Association. <https://doi.org/10.1037/0000034-005>
- Tracey, T. J. G., Wampold, B. E., Lichtenberg, J. W., & Goodyear, R. K. (2014). Expertise in psychotherapy: An elusive goal? *American Psychologist*, 69(3), 218–229. <https://doi.org/10.1037/a0035099>
- Westra, H. A., & Di Bartolomeo, A. A. (2024). Developing expertise in psychotherapy: The case for process coding as clinical training. *American Psychologist*, 79(2), 163–174. <https://doi.org/10.1037/amp0001139>
- Wilcox, M. M. (2024). Process-focused psychotherapy training is evidence-based psychotherapy training: Commentary on Westra and Di Bartolomeo (2024). *American Psychologist*, 79(2), 175–178. <https://doi.org/10.1037/amp0001236>
- Wu, M. B., & Levitt, H. M. (2020). A qualitative meta-analytic review of the therapist responsiveness literature: Guidelines for practice and training. *Journal of Contemporary Psychotherapy*, 50(3), 161–175. <https://doi.org/10.1007/s10879-020-09450-y>