CE Corner

Treating Patients With Borderline Personality Disorder

BY ALYSON POWELL KEY

BORDERLINE PERSONALITY DISORDER (BPD) is a common but often misunderstood condition, even by seasoned mental health professionals. Fortunately, enhanced diagnostic criteria and training are helping to equip clinicians with the necessary tools to effectively assist patients. And with an accurate diagnosis, BPD is treatable through psychotherapy, according to experts.

First and foremost, BPD impacts how someone views themselves and others. For example, they may see themselves as bad or worthless, and their evaluations of others may change rapidly depending on circumstances—from idealizing to devaluing. The condition is marked by extreme emotions, thinking, and behavior, unstable relationships, and insecurity.

While doctors and scientists do not know what exactly causes BPD, they think that both environmental and biological factors play a role. Research suggests that a history of child abuse or neglect, genetics, and changes in some regions of the brain can trigger the condition.

For example, one study examined how childhood trauma and attachment styles influenced stress responses in women with varying levels of BPD symptoms (Ehrenthal, J. C., et al., *Journal of Personality Disorders*, Vol. 32, No. 6 [Suppl.], 2018). Researchers measured stress responses through biomarkers like cortisol and salivary alpha-amylase (sAA) during a stressful task and found that adverse childhood experiences were linked to altered stress responses, especially when combined with insecure attachment styles. Women who scored higher on an avoidant attachment style—those who suppress their need for connection and struggle to rely on others, especially during stressful times—showed consistently higher levels of sAA, a marker of stress. When combined with childhood trauma, anxious attachment—defined by a doubt in the ability to handle emotions independently and constantly seek reassurance—was associated with less reactive and more blunted cortisol responses, indicating a dampened stress response. In other words, the combination of high childhood trauma and attachment insecurities led to distinct patterns in stress regulation, suggesting that early experiences shape how people cope with stress later in life.

CE CREDITS: 1

Learning objectives: After reading this article, CE candidates will be able to:

1. Name the nine criteria listed in the *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition) and how many a patient needs to exhibit to receive a diagnosis of BPD.
2. Explain why BPD is commonly misdiagnosed and how clinicians can avoid misdiagnosis and best treat symptoms.
3. Describe the treatment approach for children and adolescents who are exhibiting symptoms of BPD.

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A sea change in diagnosing personality disorders

Over the past 25 years, the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) has refined the diagnostic criteria for BPD and other personality disorders to ensure more reliable and valid diagnoses, eventually dividing personality disorders into three clusters. Each cluster includes a unique set of personality disorders with similarities in symptoms, behaviors, and underlying psychological patterns. Cluster A groups personality disorders with "odd or eccentric" characteristics, such as paranoid personality disorder. Cluster B includes BPD and other personality disorders with dramatic, emotional, or erratic behaviors. Cluster C covers personality disorders with anxious or fearful characteristics, such as avoidant personality disorder.

The current version of the *DSM*, the fifth edition (*DSM-5*), introduced an alternative model for diagnosing these conditions, "a sea change in how we conceptualize personality

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disorders," explained Kenneth Levy, PhD, a clinical psychologist and professor of psychology at The Pennsylvania State University. The model recognizes that people often show traits from multiple personality disorders rather than fitting neatly into just one.

The alternative model was introduced to address problems with the older system, such as overlapping diagnoses and unclear distintions between disorders. Since then, it has generated a large body of research. While some clinicians prefer the alternative approach, it has not been fully adopted into mainstream mental health treatment.

Two main criteria must be met to diagnose BPD under the alternative dimensional model. First, the person must have significant problems in at least two areas of personality functioning: identity, self-direction, empathy, or intimacy. Second, they must display at least four of these traits: emotional instability, anxiety, fear of separation, persistent sadness, impulsiveness, risky behavior, or hostility, and at least one of the traits must be impulsiveness, risky behavior, or hostility.

A third framework, the *International Classification of Diseases* (*ICD*) model for personality disorders, also takes a dimensional approach. It includes five broad trait domains: negative affectivity, detachment, dissociality, disinhibition, and anankastia (obsessive-compulsive tendencies). The *ICD-11* model is even more fully dimensional than the alternative model, requiring clinicians to assess severity first before specifying personality traits. But it still maintains a "borderline pattern" specifier, acknowledging the extensive research and clinical focus on BPD. This helps bridge the gap between the new dimensional model and older diagnostic traditions.

The challenge of accurate diagnosis

BPD is the most commonly diagnosed personality disorder in clinical populations. Studies estimate that it affects about 0.7% to 2.7% of the general population. The prevalence is higher in health care settings—about 6% in primary care, 11% to 12% in outpatient psychiatric clinics, and 22% among psychiatric inpatients. Severe symptoms, including suicidal thoughts and self-harm, often lead people to seek out or require professional help in an emergency room or inpatient unit, which raises the likelihood that they will be diagnosed with BPD. Clinicians in these settings may be more familiar with BPD and better equipped to recognize its symptoms than those in general medical practice.

In the general population, however, BPD is frequently underdiagnosed, and when it overlaps with symptoms of conditions like anxiety, depression, and bipolar disorder, it can lead to misdiagnosis. Symptoms can appear similar, but skilled clinicians can spot distinctions. For example, mood instability tends to be moment-to-moment in people with BPD, with their moods changing much quicker than those of people with bipolar disorder.

Research shows that clinicians miss many BPD cases simply because they do not evaluate for the condition, highlighting the importance of a thorough assessment, including a detailed patient interview and mental health evaluation, medical history, and symptom discussion.

Treatment options and approaches

The main treatment for BPD is psychotherapy; there is currently no medication approved specifically for treating BPD. Therapies designed specifically for BPD, including those listed below, have been shown to improve functioning, reduce symptoms, and may help lower self-harm and depression.

- **Mentalization-based treatment (MBT),** helps people with BPD better understand and manage their emotions and involves both individual and group therapy to improve emotional awareness and empathy for others.

- **Dialectical behavior therapy (DBT)** combines mindfulness with skills to manage emotions and relationships. It focuses on helping people tolerate distressing feelings through individual and group therapy and weekly team consultations with therapists.

KEY POINTS

1. Borderline personality disorder (BPD) is the most commonly diagnosed personality disorder in clinical populations.
2. BPD can be diagnosed when a patient exhibits five or more related symptoms involving self-regulation.
3. Typical treatment includes different therapy options, including dialectical behavior therapy, transference-focused psychotherapy, and mentalization-based treatment.
4. Because the symptoms overlap with other mood disturbances, BPD is often misdiagnosed.

■ **Transference-focused psychotherapy (TFP)** leverages the patient-therapist relationship to help patients recognize unhealthy interpersonal patterns, and the therapist offers clarification and feedback.

■ **Schema therapy (ST)** aims to help people build healthier adult behaviors by addressing four key emotional patterns in BPD: feeling abandoned or abused, anger and impulsivity, emotional detachment, and a critical inner voice. ST uses a mix of cognitive behavioral, psychodynamic, attachment, and emotion-focused techniques.

One study explored how different BPD therapies perform depending on a person's ability to understand their own and others' thoughts and feelings, a skill known as reflective functioning (Keefe, J. R., et al., *Journal of Consulting and Clinical Psychology*, Vol. 91, No. 1, 2023). Researchers looked at four types of treatment: TFP, DBT, supportive psychodynamic therapy (SPT), and community-based care.

They found that patients with low reflective functioning benefited more from TFP or SPT, showing improved symptoms and better reflective functioning. These therapies focus on understanding emotional states and relationships. Patients with high reflective functioning responded better to community-based care and DBT, which involve building specific skills for emotional regulation and interpersonal effectiveness. These findings suggest that matching the type of therapy to a patient's reflective functioning level could enhance treatment outcomes for BPD.

Unfortunately, treatment, regardless of type, isn't effective for everyone. "Patients with high trauma rates or antisocial traits often don't do as well in treatment," Levy said.

Biological factors as well as environmental factors (such as childhood trauma) contribute to the development of borderline personality disorder.



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He added that research is increasingly focused on understanding how treatments for BPD work rather than just if they work. "What changes within the patient? What does the therapist do to enact that change?"

While there are no FDA-approved medications for personality disorders, medication can be used to manage mental health conditions that often accompany BPD, such as depression or anxiety. If a patient is at risk of harming themselves, hospitalization is recommended.

Building a trusting clinician-patient relationship is also critical, said Julia Becker, PsyD, a clinical psychologist and coach who treats college students and adults with a range of mental health issues including borderline personality disorder. Since BPD is marked by unstable relationships characterized by extremes of idealization and devaluation, it can affect the bond between therapist and patient. So, for people with BPD, building a strong therapeutic alliance may require more than just trust and shared goals—it might involve managing this instability.

To explore this, researchers analyzed daily patient ratings of the therapeutic process for 51 patients with BPD and 66 with major depressive disorder who were receiving inpatient treatment and examined the stability of the therapeutic alliance and how it related to treatment outcomes. (Kratzer, L., et al., *Journal of Contemporary Psychotherapy*, Vol. 54, 2024). The findings showed that the alliance was much more unstable for patients with BPD. Interestingly, this instability—when it included periods of breakdown and repair—was linked to better outcomes for BPD patients. This suggests that working through challenges in the therapeutic relationship may play a key role in effective treatment.

Considerations for children and adolescents

Many clinicians are reluctant to diagnose adolescents with BPD because of the common belief that personality is not sufficiently formed during adolescence, so a personality diagnosis would be premature.

However, both the current and older versions of the *DSM* allow providers to diagnose BPD in people younger than 18. And research indicates that many features of BPD are already present and stable in adolescents.

"We used to think that personality disorders couldn't be diagnosed until adulthood, but the features of BPD are remarkably similar in adolescents and adults," said Carla Sharp, PhD, a clinical psychologist and director of the Adolescent Diagnosis Assessment Prevention Treatment Center at the University of Houston.

Like adults, adolescents with BPD experience emotional dysregulation and unstable relationships. But the social environments influencing their symptoms differ. For younger people, parental and peer relationships as well as social media play prominent roles in shaping how symptoms manifest. For example, social media heightens social comparison and identity pressures, which can intensify emotional and interpersonal difficulties. While adults are also susceptible to external influences, the nature of those influences varies, reflecting differences in their social contexts.

It is also important to distinguish the ways that BPD manifests in children and adolescents, according to Sharp. Personality disorders are characterized by an unstable sense of self and impairments in interpersonal functioning; however, children and adolescents are still forming their sense of self and interpersonal skills. In these age groups, clinicians may instead evaluate specific traits or behaviors, such as emotional sensitivity or impulsivity, which could indicate a risk of developing a personality disorder later in life.

Sharp, whose work focuses on personality disorders and other severe psychopathology in adolescents, believes that adolescence is an optimal time to treat BPD "because the brain is still plastic, and social relationships are in flux."

Treatment should consider an adolescent's ongoing development, particularly in identity formation, emotional regulation, and interpersonal relationships, Sharp added. Their impulsivity and emotional sensitivity require tailored interventions that address the challenges of this stage of their lives. For instance, DBT for adolescents often includes parents or other caregivers to enhance communication and reduce family conflict, while MBT also focuses on helping them make sense of themselves and others. While research shows that DBT and MBT improve symptoms in youth with BPD, more research is needed, given that the quality of studies has generally been low, said Sharp.

Identifying cultural and gender biases

Cultural norms can also influence how clinicians interpret symptoms of BPD, leading to potential misdiagnosis. For example, people from more expressive cultures may display intense emotional swings that could be misinterpreted as pathological in less expressive cultures. Conversely, it may be difficult to identify BPD in people who live in cultures where expressive displays are not the norm, not even intense emotions like anger or sadness. "Clinicians might mistakenly diagnose a personality disorder when environmental factors actually explain the behavior, or they may underdiagnose because they're using

DIAGNOSIS

CRITERIA FOR BORDERLINE PERSONALITY DISORDER

The *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition) outlines nine criteria for borderline personality disorder, with a diagnosis usually requiring someone to display five or more of these symptoms:

- Frantic efforts to avoid abandonment, whether real or imagined
- Unstable and intense interpersonal relationships that alternate between extremes of idealization and devaluation
- Markedly and persistently unstable self-image or sense of self
- Impulsivity in at least two areas that are potentially self-damaging, such as spending, substance abuse, reckless driving, sex, or binge eating
- Recurring suicidal behavior, gestures, or threats or self-harming behavior
- Affective instability because of a marked reactivity of mood
- Chronic feelings of emptiness
- Inappropriate, intense anger or difficulty controlling anger
- Transient, stress-related paranoid ideation or severe dissociative symptoms



Research now shows that borderline personality disorder affects men and women equally, challenging previous misconceptions influenced by gender biases and differences in mental health care-seeking behavior.

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their own biases as the benchmark," explained Vibh Forsythe Cox, PhD, a clinical psychologist and director of the Marsha M. Linehan DBT Clinic at the University of Washington.

Misinterpreting cultural norms and the patient's relationship to them can affect treatment outcomes, turning patients away from therapy or leading to inappropriate treatment plans, Cox added. It is essential that clinicians receive training on cultural humility and ask meaningful, contextual questions, she said. They should aim to understand the patient as an individual rather than making assumptions based on cultural stereotypes.

Cox, who is on the board of the International Society for the Improvement and Teaching of DBT (ISITDBT) and a founding member of the ISITDBT Anti-Racism Committee, encourages clinicians to ask questions like, "What's the best way for me to understand how your emotions show up?" or "How do your emotions differ from those of other people around you or who share your culture?"

Although BPD was once thought to be more common in women, research now shows it affects men and women equally (Bozzatello, P., et al., *Frontiers in Psychiatry*, Vol. 15, 2024). Historically, this misconception arose partly because women are more likely to seek mental health care, leading to their overrepresentation in psychiatric studies. Gender biases in the interpretation of mental health symptoms can also play a role. "Men's anger may be socially acceptable, while women's anger is more likely to be diagnosed as BPD," explained Becker.

Gender bias can also extend to diagnosis. While BPD is equally prevalent in men and women, it is frequently underdiagnosed in men, whose symptoms may instead be labeled antisocial behavior or substance use disorder, for example. As a result, many men with BPD are left untreated or misdiagnosed. Experts say that the solution lies not in reducing care for women but in providing more support for men struggling with BPD.

Combating stigma

Unfortunately, there remains considerable stigma surrounding BPD and its effect on people living with the condition, according to experts. BPD is often misunderstood as being untreatable or inherently linked to chronic dysfunction. This stigma can lead to misdiagnosis or avoidance of a diagnosis altogether, denying patients the chance for effective treatment and augmenting their challenges.

Slowly, the negative perception of BPD is beginning to change, led by younger generations and the voices of those with lived experience who view the condition as treatable. "Younger generations have come to a different understanding of personality disorders. Many have embraced them, understanding that the diagnosis does not mean they are defective or unworthy," Becker said.

Still, misunderstandings persist within the health care system, underscoring the need for more education and training among clinicians. Clinicians must address their own biases about BPD and view it as a treatable disorder rather than a lifelong label. Sharp says there is also a push for frontline clinicians, such as general practitioners, to recognize and treat the condition.

"We need to move past the stigma and train all clinicians to identify and work with BPD symptoms earlier," she said. ■

AMERICAN PSYCHOLOGICAL ASSOCIATION

Enhancing Learning through Commitment to Change

Greg J. Neimeyer, Ph.D.

The rapid proliferation of new knowledge in psychology has placed renewed demands on professional practitioners to keep pace with ongoing advances. Overall, knowledge may remain current in professional psychology for as little as about 6-7 years, with more rapidly diminishing durability in key areas of practice, such as psychopharmacology, child health, forensics, substance use, or neuropsychology, among others (Neimeyer, Taylor & Rozensky, 2014). This means that, in the absence of a commitment to ongoing professional development, many practitioners may begin to experience knowledge obsolescence even while they are still in the early stages of their career (Neimeyer, Taylor & Rozensky , 2012).

BEST PRACTICES

In response, the field of professional psychology, together with other allied health professions, have redoubled their efforts to formulate sets of "best practices" that can enhance learning and the translation of that learning into practice (Institute on Medicine, 2010; Taylor and Neimeyer, 2017). The collective objective of these best practices is to enhance the comprehension, retention, and application of new knowledge in support of ongoing professional competence. Some of these practices focus on the value of adapting the learning strategies to individuals' unique learning styles, presenting information multiple times utilizing different media, and providing opportunities for individuals' input, application and behavioral rehearsal of the material, in addition to receiving peer, or instructor, review and feedback (Neimeyer & Taylor, 2014; Taylor and Neimeyer, 2017).

In addition to identifying current best practices, the allied health fields have long dedicated themselves to the development and evaluation of novel mechanisms for enhancing new learning, as well, drawing from a wide range of literatures with common objectives. Research within the science-of-learning, adult education, and performance enhancement literatures have been particularly productive in identifying and assessing novel methods of learning and facilitating the translation of that learning into practice. *Benchmarking* and *self-assessment* are two examples of educational practices that have arisen as mechanisms designed to facilitate quality assurance and ongoing professional development (Neimeyer and Taylor, 2014).

Benchmarking and Self-Assessment. *Benchmarking* refers to the express comparison of one's own work with the work of other professionals in the field. Benchmarking can be understood as the systematic process of evaluating work based on best practices and using evidence-based practice (EBP) to improve performance. In a typical benchmarking procedure, a psychologist might be given videotapes of peers who are conducting a procedure, such as a substance use screening. The videos are pre-determined to depict varying levels of quality. They might range from depicting relatively poor, informal questioning through more thorough, systematic, structured interviews. The psychologist is then asked to evaluate his or her screenings in relation to those he or she has seen, and given information about key components that are present, and absent, in each of the video "benchmarks." Benchmarking provides an anchor against which psychologists can compare themselves, increasing the accuracy of their self-assessment and incorporating elements of the "higher" benchmarks into their own practice.

Research has demonstrated the effectiveness of benchmarking in relation to improving the accuracy of self-assessment, which is a critical pre-condition for evaluating current clinical skills and needs. Lane and Gottlieb (2004), for example, found that when medical residents viewed videotapes of their performance, their self-assessment accuracy increased significantly. And their accuracy increased still more when they watched the videos with a faculty member. Similarly, Martin et al., (1998) found that comparing one's own performance to the performance of others increased the accuracy of self-assessment. In their study, these researchers invited family practice residents to conduct mock interviews with a mother suspected of physically abusing her child. The residents were then asked to rate their performance. Next, residents watched their videotaped interview, in addition to watching four benchmark interviews depicting varying levels of competence. After watching the benchmark interviews, the relationship between the residents' self-ratings and the independent ratings of the supervisor was significantly stronger.

Self-assessment can take many different forms. All forms share in common express efforts to reflect upon, and evaluate, one's own current skills and/or future professional needs and interests. The Quality Assurance Program in Ontario, Canada, is one example of a well-articulated program of self-assessment (Morris, 2011). The Quality Assurance Program requires that each psychologist undertakes a self-review every other year, though the completion of a stipulated Self-Assessment Guide and a Continuing Professional Development Plan. Through a series of questions, psychologists critically evaluate their strengths, growth areas, and gaps in their learning. After conducting the self-assessment, they develop their own personal plan to remediate areas of identified weakness and to enhance their overall professional competence, sharing their plans with a colleague who reviews it and provides input. The Continuing Professional Development Plan is designed to 1) promote continuing competence and quality improvement, 2) remedy gaps in knowledge and skills identified in the self-assessments, 3) address changes in practice environments and workplace needs, and 4) incorporate evolving standards of practice and advances in technology. These Continuing Professional Development Plans are subject to peer review by members of the College of Psychology of Ontario according to stipulated regulatory requirements.

Both benchmarking and self-assessment reflect the considerable effort that can accompany efforts designed to promote professional growth and development. Facilitating new learning, and the translation of that knowledge or skill into practice can be an effortful process, requiring reflection, formulation and deliberate application. Transitioning new learning to practice often requires an individual to reflect on how new knowledge or skills may apply to their own experience and to formulate ways in which the new material can be modified, adapted, or utilized within their own professional contexts or workplace environments. If the value of this effort is justified by the anticipated improvement or outcomes that may follow from it, then individuals are more prone to commit themselves to changes in what they do, or how they go about doing it.

Although some mechanisms for triggering change are designed to be intensive and may require considerable time, others are designed as brief reflective exercises that can occur immediately after, or even during, a learning event. A longstanding literature on the concept of a Commitment to Change illustrates the value of utilizing this simple technique in the service of generating greater learning and the translation of that learning into actual practice (Mazmanian & Mazmanian, 1999).

COMMITMENTS TO CHANGE (CTCS)

CTCs have been the subject of attention for the last few decades, but only recently have they been imported into the fields of allied heath, or more recently still within psychology. CTCs are generally generated following an educational event such as attending a lecture, participating in a workshop, or reading an article (Wakefield, 2004). To complete a CTC, participants are asked to identify a set of possible changes they would like to make in their own practice based on the educational event. They are asked to formulate these changes in specific, behavioral form, which requires them to reflect on the relevance and applicability of the new information, and to adapt its application to their own interests and experience. They are then asked to indicate a level of commitment to each of the changes they have formulated, utilizing a rating scale that reflects their commitment to change, from low (1) to high (5). In the Commitment to Change procedure, participants are often reminded of their commitments 1-2 months later, and asked to indicate if they actually enacted, or attempted to enact, each of their stipulated CTCs and to describe their experience or outcomes.

The effectiveness of the CTC procedure seems to be related to its three steps. The timing of the administration, immediately after the learning event, provides the participant an opportunity to reflect on the most salient elements of the material and to formulate it in terms that are most relevant to their own experience, interests, or needs. Rating the level of commitment provides a concrete mechanism for reflecting on the importance or value of the change, and anchors the individual in a level of expectation about completing it. And the subsequent follow-up provides a sense of accountability and the opportunity to reflect on the translation of the material into practice, or the barriers that may have impeded or prevented that translation.

THE BACKGROUND ON CTCS

CTCs have been the subject of attention in relation to the organizational change literature for several decades, as a tool for facilitating critical shifts in organizational structure, processes or style. Within the allied health literatures, medicine was among the first to explore the utility of CTCs as a mechanism for facilitating the translation of new knowledge into actual clinical practice. Within this literature, the actual performance of CTCs varies widely, from 47-87% (Wakefield, 2004), based on a number of identified factors. These factors include the extent to which individuals feels as if the CTCs are relatively easy to do, and the extent to which they feel as though they have personal control over completing them (Fidler et al., 1999, Lockyer et al., 2001). The greater the environmental or institutional constraints, the less likely individuals are to be able to follow through on their commitments and accomplish the behavioral changes they have formulated (Parochka and Paprockas, 2001). A number of studies have demonstrated that the CTC procedure can trigger actual changes in practice-related behavior, including the specific prescriptions that physicians write following educational programs (Wakefield et al., 2003), and the specific interventions utilized by occupational therapists over the course of their work with their clients (Lowe, Rappolt, Jaglal, & Macdonald, 2007).

The precise mechanisms involved in triggering this translation into practice are not fully known, but recent work has begun to address them. Herbert, Lowe and Rappolt (cited in Lowe, Hebert & Rappolt, 2009), for example, wondered whether reflection alone at the end of a new learning experience was sufficient to promote practice change, or whether the express formulation of a commitment of change was an essential element. Reflection has long been a key component of ongoing professional development programs, as reflected in the Mann et al., (2009) systematic review of reflection within continuing medication education courses. In their study, Hebert et al. (2009) asked half of their participants to complete CTCs while the other half were prompted to reflect on the workshop using the Critical Incident Questionnaire (CIQ). Two months following the workshop, there was a modest difference favoring the CTC group over the reflection-only group. The percentage of those who demonstrated significant change was significant in both groups, but it favored those who had formulated specific commitments to change. Overall, 67% of the individuals who used CTCs made changes in practice, compared to 50% of those in the CIQ group who reported doing likewise.

A recent study of the relationship between reflection and behavior change in continuing medical education provides further evidence in this regard (Ratelle, et al., 2017). In a cohort study of attendees at a national hospital continuing medical education course, 223 participants provided reflection scores for each presentation they attended, and formulated commitment-to-change statements at the conclusion of each course. Reflection scores consisted of ratings, on a 5-point scale, about the extent to which the presentation had prompted reflection, re-consideration, deliberation or critical re-evaluation of their practices. A 3-month post-course survey was conducted to determine whether planned CTCs were successfully implemented, and whether they were related to higher levels of reflection.

Overall, participants indicated that 65.5% of the CTC statements were implemented. Reflection scores correlated significantly with the number of planned CTC statements ($r=.65$, $p<01$), suggesting the potential role of the CTC procedure in enhancing reflection and, potentially, translation into actual practice. In addition, higher reflection scores were related to the greater availability of opportunities for audience response and the use of clinical case illustrations. The researchers concluded that, "we found that reflection strongly correlates with CTC" and that "continuing education "curricula that stimulate reflections may actually promote positive patient care behaviors" (Ratelle et al., 2017, p. 166).

SUMMARY

Educators or learners who are interested in enhancing learning, and the translation of that learning into practice, may increase the retention and translation of material by incorporating CTCs into their programs. Although the overall effectiveness of CTCs as a tool to enhance the integration of new learning into practice is still under study, the current evidence is promising. The incorporation of simple reflective questions into a learning experience may itself be useful, as when the psychologists asks, "How can I use this new knowledge?", "How does this apply to my practice and to what I do?", or "What might I do differently based on what I have learned today?" Although simple reflection itself appears to facilitate both learning and the translation of that learning into practice, the express formulation of potential changes and a commitment to those changes may add further value (Lowe et al., 2009). Overall, the formulation of CTCs represents a relatively simple mechanism for promoting reflection, anchoring expectations regarding adoption, and leveraging new learning into novel practice behaviors. Simple extensions to the CTC procedure that may provide additional benefit include conducting surveys of post-course behaviors to assess compliance with the CTCs, encouraging reports to colleagues or other peers regarding CTCs in order to build in additional elements of accountability, or establishing timelines for the completion of CTCs. With continued utilization and examination, Commitment-to-Change procedures may join the ranks of other processes, procedures and techniques that jointly constitute what has increasingly come to be recognized as the set of "Best Practices" in the field of ongoing professional education and continuing professional competence.

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