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Collaborative Problem Solving

An Evidence-Based Approach to Implementation and Practice

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This book is dedicated to the hundreds of talented professionals who have partnered with us over the years to implement this approach and, more generally, who have strived for more compassionate and effective approaches to working with children with behavioral challenges.

When we began to offer more robust implementation support, including CPS coaching, readiness evaluation, and rapid-cycle evaluation, it felt a bit like we were "building the implementation ship as we sailed it." However, thanks to your faith in us and faith in this approach, our experiences together have clarified what works and what doesn't. So many children and families have benefitted as a result of your efforts. They, and we, are incredibly grateful.

Preface

Collaborative Problem Solving (CPS) is an evidence-based approach for understanding and helping behaviorally challenging children and adolescents. The approach is effective across a variety of settings from homes to schools, police departments, foster care agencies, and clinical facilities such as hospitals and residential programs. This edited book is the first to systematically describe the key components necessary to ensure successful implementation of CPS across such settings. The interested reader will be provided with a concrete framework that will support their task of implementing this approach within their program, organization, and/or system of care. After training literally thousands of providers, educators, and parents in Collaborative Problem Solving and implementing CPS in hundreds of organizations, we believe this text should be a required resource for administrators of any system that is implementing the approach.

Boston, MA, USA — Alisha R. Pollastri
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Michelle A. Duda is Founder and President of Implementation Scientists, LLC, and a senior-level board-certified behavior analyst. She is an internationally known leader in the field of implementation science and a highly sought-after systems coach. Through her role as a Scientist (University of North Carolina at Chapel Hill) and Associate Director (National Implementation Research Network), she led several large-scale systems change projects in both Canada and the United States. Dr. Duda's record of success includes coaching over 100 leadership teams implementing and sustaining best practices within their own organizations.

Kevin George is a social worker working in the public child welfare field for over 30 years. His primary focus has been on public policy and program development with a special area of expertise in foster care services for children. He is a member of the Collaborative Problem Solving Advisory Committee at

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Michael J. G. Hone has worked in child and adolescent services since 1988 in a variety of settings including child welfare, youth justice, education, and child and youth mental health. He is currently the Executive Director of Crossroads Children's Mental Health Centre in Ottawa, Ontario. As a Collaborative Problem Solving certified trainer, Mr. Hone has trained over 8,000 people in Ontario and across North America.

Alexia Jaouich is a psychologist with extensive clinical and program implementation expertise in the field of mental health and addiction. She is currently the Director of Innovation and Implementation in the Provincial System Support Program (PSSP) at the Centre for Addiction and Mental Health, an intermediary program that works together with partners across Ontario to improve the way those who experience mental illnesses and addictions access and experience services. With expertise in implementation science, Dr. Jaouich oversees large provincial system-level implementation projects that involve stakeholders across sectors and has authored academic and educational texts on the subject.

Robert E. (Bob) Lieberman is a licensed professional counselor with over 44 years of experience working with young people with serious mental and behavioral disorders and their families. He is a certified trainer in Collaborative Problem Solving and, as former CEO of a multi-site agency in Oregon, oversaw a successful CPS implementation across a variety of clinical settings and geographic locations. Mr. Lieberman teaches CPS in residential treatment, school, social service, and juvenile justice settings and is a member of the CPS advisory committees at Massachusetts General Hospital and Oregon Health & Science University.

Kathleen A. McNamara has been a certified trainer in Collaborative Problem Solving since 2015 and has trained over 50 tier one CPS trainings in the past 3 years. She was

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Katherine G. Peatross is a professional counselor who has been in practice at Youth Villages for over 22 years. She is certified in Collaborative Problem Solving and regularly trains on topics related to trauma-informed care and implementation of evidence-based practices.

Bruce Perry is the Senior Fellow of the ChildTrauma Academy, a not-for-profit organization based in Houston, Texas, and Adjunct Professor in the Department of Psychiatry and Behavioral Sciences at the Feinberg School of Medicine at Northwestern University in Chicago. Dr. Perry is the author, with Maia Szalavitz, of *The Boy Who Was Raised as a Dog*, a best-selling book based on his work with maltreated children, *Born for Love: Why Empathy is Essential and Endangered*, and a multimedia book, *Brief: Reflections on Childhood, Trauma and Society*. Over the last 30 years, Dr. Perry has been an active teacher, clinician, and researcher in children's mental health and the neurosciences, holding a variety of academic positions.

Amy E. Plog is a clinical psychologist and has worked with the Cherry Creek School District in Colorado for over 20 years as the Research and Data Coordinator for the district's Health and Wellness Department, Mental Health Team, and Safe Schools Design Team. In this role, she has compiled annual district data on student risk behavior and has directed several district-wide assessments of bullying, school climate, and student risk and protective factors.

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Chapter 1
What Is Collaborative Problem Solving and Why Use the Approach?

J. Stuart Ablon

Noncompliant, defiant, aggressive behavior is a leading cause of referral for youth mental health services [8]. Furthermore, not only are behavioral difficulties the primary concern of parents during early childhood but also a leading cause of teacher stress in schools [2]. Children who evidence such behaviors are typically assigned any of a variety of psychiatric and related disorders, including attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder (CD), attachment disorders, depression, bipolar disorder, anxiety disorders, autism spectrum disorder (ASD), nonverbal learning disorder, language processing disorders, and sensory integration disorder. Regardless of the label, parents, educators, mental health clinicians, pediatricians, and the juvenile justice system all struggle with how to manage these difficult and seemingly intractable behaviors.

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Our society's current treatment of children with challenging behavior flows directly from "conventional wisdom" that understands challenging behavior as being coercive, attention seeking, manipulative, and/or the by-product of poor motivation. This viewpoint leads to interventions relying on operant procedures such as rewards and punishments. Giving or revoking privileges in a home, sticker charts and detention and suspension in school, or more complex point and level systems in therapeutic facilities are all examples of such interventions. These interventions typically fail to solve the chronic problems caused by challenging behavior. As long as we continue to view children with social, emotional, and behavioral challenges through the lens of this conventional wisdom, it is likely that failure rates and costs will remain disturbingly high and true success stories of at-risk kids will remain disturbingly low.

The Paradigm Shift

Fifty years of research in the neurosciences has shown us why our current interventions demonstrably do not work. Conventional wisdom is wrong. Challenging kids do not lack the will to behave well. They lack the *skills*. In the same way that youth with learning disorders struggle with thinking skills in areas like reading, writing, or math, research in the neurosciences has shown that most youth who exhibit chronic challenging behaviors lack the skills needed to behave well. Specifically, youth with behavioral challenges are delayed in the development of critical *thinking skills* related to flexibility, frustration tolerance, and problem-solving [1]. In some cases, these lagging skills are the direct result of chronic, toxic stress, or trauma experienced during early childhood that has been shown to be a neurotoxin to the brain – literally delaying brain development [10]. However, there are myriad causes of such delays in development. The analogy of a learning disorder is quite apt. Not long ago, kids who had trouble reading were thought of as lazy or dumb and treated as such –

despite the sad irony that the child struggling to read was usually trying harder than anyone else in the class to do so. Thankfully, today, people recognize that these children and adolescents have a disability that simply requires a different method of teaching.

In the Think:Kids program at Massachusetts General Hospital, we aim to accomplish a similar shift in perspective and practice with youth with challenging behavior who are still completely misunderstood and their challenges completely mistreated. Rather than try to motivate these kids to behave better, we recognize that these children are ironically trying harder than anyone to behave themselves but lack the skills to do so. Our approach teaches the skills of frustration tolerance, flexibility, and problem-solving through a structured and replicable process of helping adults and kids learn how to resolve problems collaboratively.

The Collaborative Problem Solving Approach

The Collaborative Problem Solving (CPS) approach represents a novel, practical, compassionate, and highly effective model for helping challenging children and those who work and live with them. The CPS approach was first articulated in the widely read book, *The Explosive Child* [3], and subsequently in the treatment manual for the approach entitled, *Treating Explosive Kids: The Collaborative Problem Solving Approach* [4].

First and foremost, CPS provides an overarching philosophy and way of thinking, which helps serve as an anchor for adults working with these youth, especially amidst challenging circumstances. This overarching philosophy, epitomized by the phrase, "Kids do well if they can," suggests that all children are inherently motivated to try to be as successful and behave as adaptively as possible. Implicit in this philosophy is also the understanding that if a child is not behaving adaptively, something (other than a lack of motivation or desire to do well) must be standing in his or her way (Video

1.1). It is then the job of the adults to figure out what specifically is interfering and to determine how best to help.

Once adults have been acquainted to the overarching mind-set, or philosophy behind the approach, CPS provides a specific assessment, planning, and intervention process all of which flow from this basic premise.

Assessment

The Collaborative Problem Solving Assessment and Planning Tool (CPS-APT) is used by adults to structure the assessment process. This process begins by allowing the adults around the youth the opportunity to describe the specific types of *challenging behavior* that the youth exhibits. This gives an opportunity for the adults to describe how challenging the behavior is and to potentially receive some empathy for what is required to contend with these daily challenges. Listing the challenging behaviors also allows the adults to gauge the level of acuity and risk involved in those behaviors. For example, refusal carries less immediate risk than assaultive behavior. Once the adults have described the nature of the youth's challenging behavior, the discussion is oriented around identifying the predictable circumstances in which those behaviors occur. The situations in which the challenging behaviors occur are referred to as the list of *problems to be solved*. These problems to be solved encompass the precipitants, antecedents, or triggers to the challenging behavior and the specific expectations that the youth is not meeting. Adults are instructed to try to achieve as much specificity as possible in identifying the situations in which the challenging behavior occurs. That specificity will prove helpful when it comes time for the problem-solving process. In addition, identifying specific precipitants in turn enables adults to hypothesize about the lagging skills underlying those problems. Once adults have identified these specific precipitants, they then use the reference sheet on the second page of the CPS-APT to identify the primary skills deficits giving rise to the challenging

behavior. Adults are instructed that these initial hypotheses will be tested during the intervention phase. For now, these hypotheses serve to foster a compassionate and understanding mind-set with regard to the youth's challenging behavior. Once adults have identified a number of specific precipitants and have guesses as to the underlying skills deficits causing those situations to be problematic, they are ready to begin the planning process.

Planning

The planning process in CPS involves reviewing the goals that adults have with regard to the youth. The range of goals typically discussed include reducing challenging behaviors, pursuing adult expectations, solving chronic problems durably, building skills, and forming a helping relationship with the youth. Once goals have been discussed, the planning process involves illustrating how adults have three options for responding to any of the problems on their list of problems to be solved. Those options include imposing their will, which we refer to as "Plan A," dropping an expectation temporarily, which we call "Plan C," and attempting to solve the problem collaboratively in a mutually satisfactory way, which we refer to as "Plan B." Adults are then encouraged to reflect on which of their goals each of the three Plans pursues. In doing so, adults come to see that Plan A is an attempt to get their expectations met, but likely does not reduce challenging behavior and often times actually triggers it. Adults also come to realize how Plan A does not solve problems in a durable way, build neurocognitive skills, or contribute meaningfully to the forming of a helping alliance. It is important to clarify to adults that Plan C does not represent "giving in" or capitulating. Rather, Plan C is a strategic decision on the part of the adults to prioritize other goals. By temporarily dropping an expectation, adults come to see that challenging behavior is reduced, even though the expectation is temporarily set aside and no skills are trained. The heart of CPS, however, involves

the process of Plan B, where adults pick specific problems and use a standardized process to try to resolve them collaboratively with the youth. Adults are taught to understand how the ingredients of this process of working toward a mutually satisfactory solution to a problem build a helping relationship and engage both interaction partners in the practice of training crucial neurocognitive skills. The empathic nature of the Plan B process is also less likely to trigger the youth and, as such, reduces challenging behavior while still pursuing adult expectations (Fig. 1.1).

Adults are instructed that while Plan A may be required for immediate safety issues, those circumstances will recur if the problem is not solved durably and skills are not built. While Plan B has significant advantages to the other two options, it is not feasible to collaborate on solving all problems simultaneously. As such, the planning process of CPS involves prioritizing which problems to focus on first. Adults are instructed to focus on problems that the youth is more invested in or that may simply be easier to solve as a starting point. Once adults have selected the problems they want to begin working on first, they must decide how the other problems will be handled in the interim. Plan A is selected if pursuing adult expectations is more important than reducing challenging behavior. Plan C is selected if keeping the youth

GOALS	PLAN A	PLAN C	PLAN B
Try to get your expectation met	✔	✖	✔
Reduce challenging behavior	✖	✔	✔
Build skills, confidence	✖	✖	✔
Solve problems	✖	✖	✔
Build relationship	✖	?	✔

Figure 1.1 Goals purused by using each of the three plans taught in CPS

calm and reducing challenging behavior are a higher priority than pursuing the expectations of adults in that specific circumstance.

A very common misconception during the planning process of CPS is to confuse simply setting expectations with imposing one's will when those expectations are not being met. Adults are reassured that they should continue to set appropriate, realistic, and predictable expectations for youth, and that doing so is critical for all youth. The three Plans are used when those expectations which have been set are not being met by the youth. The simplicity of these three options allows adults to create a plan that facilitates consistency among the adults around the youth. While not every situation can be made predictable, through this planning process, adults also realize the dangers of Plan A in any emergent situation as well as a temporary benefit of Plan C. Perhaps most importantly, adults realize that Plan B is the only one of the three options that effectively pursues each of the five goals listed above.

Intervention

As mentioned above, the heart of the intervention of CPS is the process of Plan B. However, it is important for people to recognize that Plan B is only one component of the CPS approach. The philosophical shift in mind-set and the above described assessment and planning process all contribute meaningfully to the outcomes of CPS. While adults are often eager to being practicing the process of Plan B with youth, it is always important not to neglect fidelity to the other aspects of the model.

Having established the specific circumstances in which challenging behavior predictably occurs, adults are taught that the far preferable form of Plan B is what is referred to as Proactive Plan B as opposed to what is called Emergency Plan B, the latter of which takes place in the heat of the moment, and as such, is much less likely to durably solve

problems. Emergency Plan B is a form of crisis management or de-escalation, where Proactive Plan B takes place well before a predictable problem occurs and during a time when the youth is well regulated and accessible and the adult has had time to think and plan. Whether conducted emergently or proactively, Plan B has three basic ingredients to it. Those ingredients are intended to always be done in the same order:

1. Empathy: clarify youth concern
2. Share the adult concern
3. Brainstorm, assess, and choose a solution

The Empathy ingredient is often the most challenging for adults. It involves beginning the conversation with a neutral observation about the problem to be solved (as opposed to the challenging behavior). Adults are taught specific tools to facilitate the process of gathering information from the youth about the youth's concerns or perspective about the problem to be solved. These tools include clarifying questions, educated guesses, reflective listening, and the targeted use of reassurance. Adults are instructed that their goal in this first ingredient is to gather as much information as possible regarding the youth's concerns. The role of adults in the first ingredient is often described as that of a detective on an information-gathering mission. Only once adults have identified a youth's concerns or perspective about a specific problem to be solved do they move to the second ingredient of Plan B where they describe their own concerns or perspective about the same problem succinctly to the youth. The third and final ingredient of Plan B involves inviting the youth to brainstorm potential solutions to the problem and assessing together when they address both parties' concerns and are realistic and doable. The youth is given the first opportunity to generate solutions and is encouraged to reflect upon whether they are indeed mutually satisfactory, realistic, and doable, before selecting a solution and making a plan to enact it. Adults are taught to expect Plan B to not go smoothly in the beginning. In fact, they are trained to notice where Plan B conversations get stuck, as those places illustrate whether the

hypothesized skills deficits are indeed where the youth struggles. Adults come to realize that there is no more effective way to figure out with which problem-solving skills a youth struggles than by paying attention to where the youth gets stuck when problem-solving. Similarly, adults come to understand that the best way to help youth develop better problem-solving skills is by engaging in repeated practice at solving problems with them. It is the repetition of the three ingredients of Plan B where the skills training occurs. The fact that this skills training occurs in a naturalistic and relational context is crucial to the generalizability of the skills training (the neurobiological principles underlying this form of skills training through the practice of Plan B will be covered in depth in Chap. 2. Once adults come to realize that the power of Plan B is as much in the process as the outcome, they tend to persevere when Plan B gets stuck and/or when initial solutions do not prove effective. Ultimately, the repetition of the Plan B process solves problems while meeting adult expectations and reduces challenging behavior while building skills and relationship.

From the Living Room to the Staff Room

CPS was first used as a parenting approach before being formally tested in outpatient therapy for families with children who met criteria for oppositional defiant disorder and exhibited some mood dysregulation. A randomized controlled trial found that CPS produced significant improvements across multiple domains of functioning at posttreatment and at 4-month follow-up. These improvements were in all instances equivalent, and in many instances superior, to the improvements that resulted from parent training [5].

The first implementation of CPS in a system was on a child psychiatric inpatient unit at the Cambridge City Hospital outside of Boston Massachusetts. By training inpatient staff to use CPS, the hospital was able to completely eliminate the use of restraint and seclusion [6]. As the results from that

study were shared publicly, multiple inpatient units across North America became interested in using CPS as a means to decrease restraint and seclusion. Subsequent studies replicated the dramatic reduction of restraint and seclusion in child and adolescent inpatient units [9].

The next systemic implementation of CPS occurred in juvenile detention facilities in the state of Maine, where recidivism rates were dramatically reduced in addition to restrictive interventions [11]. Interest in CPS became more widespread throughout a variety of therapeutic programs including residential treatment centers, day treatment centers, and therapeutic schools, and large multiservice systems began training staff in CPS across multiple settings and campuses [12].

Ultimately, school systems also became interested in using CPS to transform disciplinary policies and procedures as a means to decrease challenging behavior and resulting teacher stress as well as rates of detention, suspension, and expulsion [13, 14]. Since that time, various other types of systems and programs have found that implementing CPS addresses their concerns and goals, including mentoring programs, foster care programs, and police forces. Because CPS provides a common, unifying philosophy, language, and process that is applicable across systems from individuals' homes to schools, to therapeutic, and to correctional facilities, we have found that it has been an appealing approach for a vast array of systems. CPS has been increasingly implemented across entire communities, large national and international organizations, and systems of care [7].

Lessons Learned from Implementation

As CPS has been exported to many different types of settings, and more and more entire systems, it has become increasingly clear what the primary obstacles are to effective implementation and how best to address them. Reflecting on what has been learned through the field of implementation science, our lived experience mirrors many of those conclusions [2].

This book represents our latest thinking on how best to implement CPS, flowing both from lessons learned from implementation science as well as from our experiences. It includes much of the information we have been gathering for the last two decades on how to maximize the chance of success implementing the CPS approach across different types of settings.

Chapter 2 focuses on the effect of chronic, toxic stress and trauma on brain development and helps readers to understand how CPS promotes the types of interactions necessary for healthy biologic development. The concepts described in this chapter are relevant in any setting where CPS is implemented but especially in settings that serve youth who have been exposed to chronic stress and trauma. Chapter 3 provides an overview of the field of Implementation Science and its implications for the implementation of CPS specifically. As stated above, taking these factors into account when designing an implementation plan is crucial to maximizing successful outcomes. Chapter 4 focuses on implementation of CPS in milieu and community-based settings. The chapter will highlight common issues related to implementation across therapeutic settings and also covers implications for specific settings. Chapter 5 details the nuances of implementing CPS specifically in educational settings. Special attention is devoted to the integration of CPS within existing school structures. CPS also lends itself well to implementation across entire systems; Chap. 6 describes the critical factors to consider when planning large-scale, system-wide implementation. The next two chapters provide important information about evaluation: Chap. 7 focuses on mechanisms to assess CPS integrity with a particular eye toward helping systems use such data to maintain the integrity of implementation over time, while Chap. 8 assists the reader in developing a plan for systematically evaluating the outcomes associated with implementing CPS across all types of settings. Implementation of CPS often reveals challenges among staff that can be successfully addressed using the CPS process itself; finally, Chap. 9 focuses on the relevance of CPS for management, supervision, and mentorship.

Conclusion

Social, emotional, and behavioral challenges manifest themselves in youth of all ages and all backgrounds, and we encounter these children in many different settings. Youth educational, mental health, and correctional services, though well intended, have been limited in their ability to address challenging behaviors in youth. Adults know that reward and punishment techniques don't work for many of the youth they serve; but *they don't know what else to do*. CPS is an evidence-based approach that has proven effective across all these settings by teaching adults that instead of punishing challenging behaviors, they can help children to develop skills in the areas of problem-solving, flexibility, and frustration tolerance – skills that, once developed, will naturally result in improved behavior. The remainder of this book provides detailed information about ways you can increase the odds of successful implementation of CPS in your setting.

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Chapter 2
CPS as a Neurodevelopmentally Sensitive and Trauma-Informed Approach

Bruce D. Perry and J. Stuart Ablon

The typical human brain is an amazingly complex organ with over 86 billion neurons, at least five times as many glial cells and more than 400 trillion synapses, all continuously active. These structures are organized in a hierarchical fashion, forming complex neural networks. Four developmentally distinct regions (brain stem, diencephalon, limbic, and cortical) are woven together by multiple neural networks that give rise to a host of functions ranging from regulation of heart rate to abstract cognition (see Fig. 2.1). The regulatory networks that originate in lower brain areas have widespread impact on

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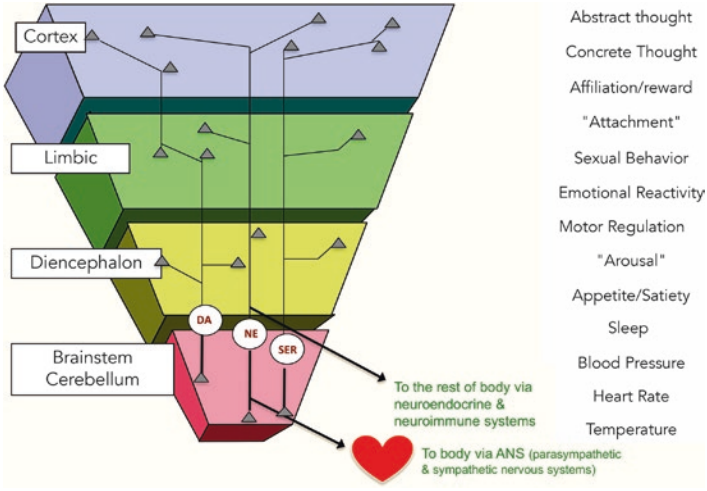

FIGURE 2.1 The four brain regions, neural networks, and associated functions. (Adapted with permission from Perry et al. [7])

upstream systems in the brain and downstream systems in the body. They play a role integrating, processing, and acting on neural input from the primary senses (which monitor the external environment) as well as the body's multiple internal sensory apparatus (which monitor both the inner world of the brain and the somatic environment in the rest of the body). This centralized orchestrating role makes these regulatory networks an essential element of the human stress responses (see [6]).

With attuned and responsive early caregiving, and with the expected moderate, controllable, and predictable challenges of healthy development, these key neural networks develop the capacity to orchestrate, integrate, and regulate the incoming sensory information from the outside and inside world. This allows individuals to demonstrate resilience when threatened or distressed. For these individuals, stressors of any kind – such as hunger, thirst, and interpersonal threat – will activate these networks and produce a set of responses that are proportional to the level of challenge and appropriate for

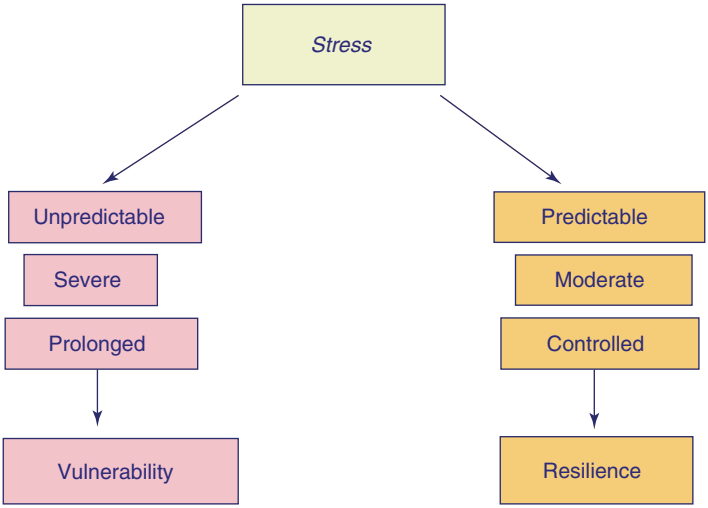

FIGURE 2.2 Effects of different types of stress on individuals' functioning

an adaptive regulatory response (e.g., to find food and eat if feeling hunger; to avoid or respond appropriately to an interpersonal threat). In contrast, if there is a pattern of unpredictable, uncontrollable, or extreme activation of these neural networks, an individual's stress response will become "sensitized," and they are more vulnerable to poor outcomes (see Fig. 2.2). When these neural networks are sensitized by previous experience, the networks themselves may become abnormally organized. The result may be a cascade of abnormal activity and compromised function in all areas that these networks innervate.

Developmental Trauma and Alterations in Stress Reactivity

There are multiple ways in which these important regulatory neural networks can be disrupted in ways that compromise normal development or functioning and result in a cascade of

risk [1, 4, 5]. Three of the most common are intrauterine insult (e.g., hypoxia, infection, maternal distress, prenatal alcohol, or drug exposure), disruptions of perinatal bonding that alter development of attachment capacity (e.g., overwhelmed depressed caregiver, preoccupied traumatized caregiver), and patterns of stress response activation that are unpredictable (e.g., housing or food insecurity, poverty), severe, or prolonged (e.g., exposure to domestic violence, sexual, or physical abuse).

The relationships between various developmental insults, trauma, and adversity have been documented in a wide range of studies. The most well-known are the epidemiological ACE studies (see [1]) which documented how developmental experiences of adversity increased risk for vast social, mental health, physical health, and learning problems. It is hypothesized that a major underlying mechanism is the alterations in these regulatory neural networks resulting from the "sensitizing" patterns of stress response activation.

Figure 2.3 illustrates two stress-reactivity curves; the black line indicates a neurotypical relationship between the level of

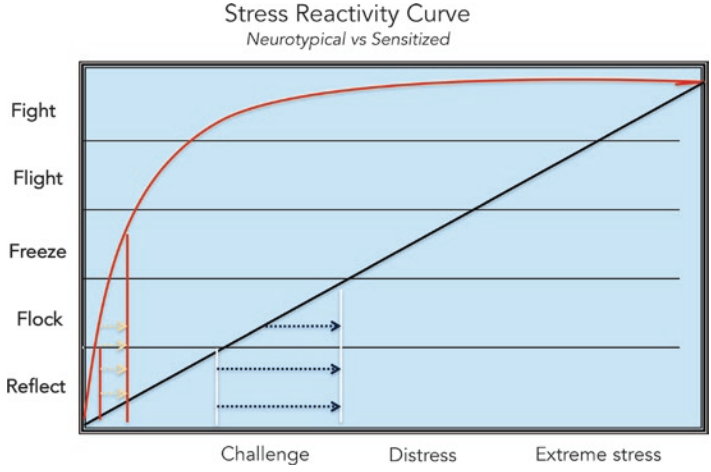

Figure 2.3 Neurotypical versus sensitized stress reactivity curve (All rights reserved © 2007–2018 Bruce D. Perry)

external challenge, stress, or threat and the appropriate proportional shift in internal state required to adapt, adjust, and cope with the level of stress. The red curve illustrates the distorted, sensitized stress-reactivity response that results from patterns of extreme, unpredictable, or prolonged stress activation such as seen in dysregulated children or youth. In this case, there is a significant overactivity at baseline and an overreaction even in the face of relatively minor challenges. All brain change (i.e., learning) requires exposure to novelty; a novel set of experiences that will, with repetition, ultimately become familiar and then internalized. Too little novelty leads to too little stress activation and minimal learning, while too much activation leads to distress and inefficient internalization of information. The dotted lines in Fig. 2.3 indicate the developmental window where enough – but not too much – stress activation occurs to promote optimal learning. This is the window in which a provider or caregiver endeavors to act during the Plan B conversations that are at the heart of Collaborative Problem Solving. You'll notice that the dotted lines for the sensitized individual are skewed to the left. This indicates that even a reasonable amount of challenge that would be appropriate to promote learning for a neurotypical individual is too dysregulating to promote learning in a sensitized individual.

CPS Adheres to the Principles of Neuroplasticity

Neuroplasticity is the brain's ability to change, especially in response to learning or experience. This change involves the creation and modification of neural networks involving various "molecular" processes including creating new neurons, making new neuronal connections (synapses), and sculpting existing synaptic connections (e.g., making them more efficient). As the brain is organizing and making sense of the individual's internal and external experiences, it makes associations (basically "connections") between patterns of

neural activity that happen together; or as cognitive neuroscientists say, "neurons that fire together wire together." In this way, an individual connects things like touch or sound with an image or a feeling, and the brain stores all these associations. When new information comes into the brain, it is processed through these existing neural networks (containing these associations – or "connections"), so that the brain can either assimilate that new information by creating new connections or modify the existing connections to account for the new information. We all will have interactions that will be influenced by our previous associations (see [9]); our first impression of a person is based on the triggering of some similarity in this new person to people in our past that we have associated with goodness, fun, or other positive qualities. A smell from the preparation for today's Thanksgiving dinner may elicit a positive (or negative) feeling based upon the associations created during previous Thanksgiving or family experiences. Thus, a person who has a history of developmental trauma can have a profound feeling of threat or fear triggered by any sight, sound, smell, or sensory input that was present during their original traumatic experiences. For individual's with developmental trauma, this is particularly troublesome when they a sensitized stress response. The key to healing starts with addressing this sensitization (a strength of CPS). Fortunately, the brain is plastic and malleable, and the stress response system can be changed through intentional patterns of interaction which heed basic principles of neuroplasticity [3]. Through this neuroplasticity, we cannot erase old associations in the brain, but we can create new associations that can begin to replace the older "default" connections. Below, we review six core principles important in neuroplasticity and therapeutics and briefly describe the ways in which CPS adheres to these principles to promote positive changes in the brain.

Principle #1: Relational Context

Perhaps the most basic principle of therapeutics (and healthy development) is that changing the brain is best done in a relational context. A child's development occurs best within

the context of strong relational bonds with adult caregivers. The brains of infants who are subject of deprivation do not develop neurotypically [8]. The Collaborative Problem Solving approach is intentionally relational as its core. Providers learning CPS are taught to stay attuned to, and adjust to, a child's arousal level while collaborating with the child to solve real problems in which they are both invested. Thus, the adult builds a relationship with the youth to provide a foundation on which learning can occur.

Principle #2: Specificity

A key principle of neuroplasticity is "specificity"; you cannot intentionally change a neural network unless you activate that *specific* network. Similarly, you cannot change a relational pattern unless you activate the same neural networks involved in that pattern of interaction. For this reason, approaches that simply try to approximate the situations in which the youth has difficulty displaying certain skills are largely ineffective. Anyone who has taught social skills or anger management groups knows about this problem of transfer of skills. Youth may appear to be gaining and displaying new skills in the group setting, but when asked to transfer those skills to a real-life situation in which the skills are needed, they are often nowhere to be found. This lack of generalizability of skills results from the fact that artificial circumstances do not recruit the *specific* neural networks involved in developing these skills. Thus, if one wants to change a child's stress response (e.g., when it has become sensitized from developmental trauma), one has to activate the stress response in a naturalistic manner. CPS does this by practicing problem-solving skills on naturally occurring problems with real adult caretakers in the youth's environment.

Principle #3: Pattern and Repetition

Like any learning, when we build cognitive skills such as social thinking skills, attention skills, or flexibility, we are creating new associations in the neural networks of the brain. Accomplishing this requires hundreds of repeated small

doses of interaction during which neurons fire together. Thus, a predictable, patterned, and repetitive interaction is necessary. Plan B is an iterative process that is often repeated, and sometimes with many repetitions, before a problem is solved. Once a problem is solved, the same process is used to address other problems. A child's experience of being asked to participate in a Plan B conversation may initially cause anxiety, but over time, with sufficient doses and repetition of the same pattern, it becomes comfortable, and their baseline stress level in that context decreases. After many repetitions, this pattern slowly shifts the baseline so that a sensitized stress response system can become more neurotypically organized (in Fig. 2.3, changing the red curve to the black line). While most clinical approaches tend to focus on the subject matter of an interaction, it is the patterned, repetition of a relational process that matters most when it comes to building new networks in the brain.

The requirement of repetition for change in the brain is often helpful for adults to understand so they do not lose faith in the Plan B process when problems require frequent attempts at Plan B before a stated problem is solved in a durable way. For example, if a traumatized child makes a prior association between relational intimacy and threat, simply engaging in the first ingredient of Plan B creates new associations between relational intimacy, empathy, and safety. Or alternating between the first two ingredients of Plan B engages the youth in repetitions of skills training in the skill domains of perspective taking and empathizing by modeling the skills and then asking the youth to try them. All of this occurs without even solving the particular problem under discussion. In fact, when an adult engages a youth in only the first two ingredients of the Plan B process and never gets to the point of generating solutions, that adult is still providing dozens of doses of small, patterned, repetitive interactions that build new associations in the brain and thus build skill (see Fig. 2.4). If adults understand that the process, rather than the outcome, is where new connections are formed in

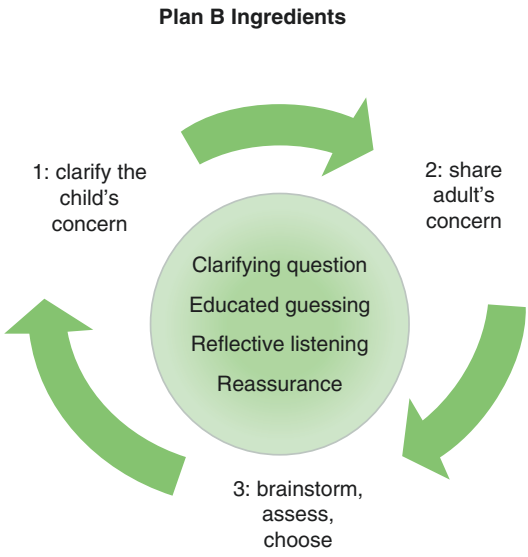

FIGURE 2.4 The repetitive cycle of Plan B builds new associations in the brain and thus builds skill. (Reprinted with permission by Think:Kids)

the brain resulting in skill development, it can be easier to remain regulated and effectively persist in the Plan B process.

Principle #4: Sensitivity to Stress Tolerance

Development interrupted by trauma or other forms of unpredictable stress can lead to a sensitized stress response systems where the normal linear relationship between external challenge and the internal response is altered. When youth experience chronic stress and trauma, their stress response is activated repeatedly before they have a chance return to their baseline. The result is a baseline that over time becomes elevated, which leads to their reactions to routine life challenges or trauma-related triggers becoming much more extreme. In

this case, even a moderate challenge or stress to the system, such as a request to transition from one activity to another, leads to dysregulation in the form of a fight or flight reaction (refer to Fig. 2.3).

As we have established, in order to change a neural network, one must activate that specific network. Thus, in order to modify an elevated stress response, one must activate the stress response. The challenge, particularly for traumatized youth, is how to activate the stress response safely. Thankfully, the stress response can be activated safely even with highly dysregulated youth if the dose of stress is moderate, controlled, and predictable.

Adults using CPS are taught to prioritize problems to solve using three plans and are encouraged to address easier problems first using Plan B. By choosing a fairly small and solvable problem first, the conversations introduce tolerable doses that desensitize the stress response over time. In the beginning, these interactions can be as quick as a few seconds. A therapeutic activation of the network might be as simple as momentary foray into a problem-solving conversation and a backing off to re-regulate the youth when their sensitized stress response gets activated. Ultimately, if a problem proves to be too overwhelming of a dose, the adult can default to Plan C and choose a less triggering problem to address next using Plan B (Video 2.1).

Many traditional therapies focus on the youth's challenging behavior itself – for instance, cursing, aggression, or defiance. Easily dysregulated youth predictably become defensive in response to such conversations because the dose of stress is too intense. In CPS, the focus is not on the challenging behavior but rather the triggers and expectations that lead to challenging behavior. This externalizing of the problem combined with judicious selection of which problems to address first maximizes the chances of achieving a moderate dose of stress. By avoiding the use of power and control (Plan A), using the regulating strategies in Plan B, and not pursuing expectations which are too dysregulating (Plan C), the adult

and youth together negotiate the appropriate dose that the youth can tolerate. This sensitivity to, and adjustment for, an individual child's stress tolerance is critical.

Principle #5: Predictability/Control

Activating the stress response in unpredictable and chaotic ways leads to adverse outcomes, whereas activating the stress response in controllable and predictable ways builds resilience. The fact that Plan B has three clear ingredients which are repeated sequentially in each conversation lends a predictable and controlled pattern to the interaction with adult authority figures. Along with the predictable pattern to the conversations, these qualities ensure a high level of control for the youth. Any trauma-informed approach must allow the youth to have a healthy amount of control in the process without sole responsibility for it. In Plan B, the youths' concerns are prioritized equally; they are asked first to generate solutions and have the right to reject potential solutions, thereby reducing the power differential which can be so dysregulating.

Principle #6: Spacing

A network will no longer respond if it is continually activated. After activating the stress response with a tolerable dose of stress, one must wait until the network is responsive again to be effective. Very few clinical approaches capture this therapeutic rhythm that we now know leads to actual change in the brain. For example, traditional therapies often attempt to expose the youth to doses of activation (the 50-min session, for example) that actually lead to a neural network becoming refractory. The recipe for building new patterns of activation in the stress response is frequent moderate, predictable, and controlled doses of good stress with spacing in between. The CPS approach respects this need for spacing between doses to change the brain. The average Plan B conversation is less than 10 min long, and it may last only a few seconds depending on the state of regulation of the youth.

CPS Follows the Essential Sequence of Engagement: Regulate, Relate, Reason

As we presented at the outset of this chapter, all information from our bodies enters through sensory experience. Internal sensory experiences tell us if we are hungry or cold so that we can act upon these needs. External sensory experience comes into the brain through tactile, visual, gustatory, auditory, and olfactory input. All of this critical feedback from the body and outside world go directly and first to the lower parts of our brain. The lower parts of our brain can then respond directly to this incoming information and/or send the information to higher parts of our brain for a response. The lower and more simple parts of our brain have far fewer options than the higher parts for how to respond, for example, with fight or flight impulses. The higher parts of the brain are where critical thinking and problem-solving occurs (refer to Fig. 2.1).

Thus, in addition to following the principles of neuroplasticity we have detailed, one must also respect this sequence with which our brains process information in order to be effective in promoting brain change. Most therapeutic approaches use top-down approaches, aiming to access the top part of our brain, or cortex, by engaging the youth in rational, practical discussion rather than respecting the reality that information only moves up to the top of the brain from the bottom. Any effective approach must instead follow this sequence of engagement: regulate, relate, and then reason (see Fig. 2.5). One must start by regulating the youth (a brain stem level activity) before the youth will be ready to engage relationally (a midbrain level activity), before they can finally be invited to reason (a cortical activity) to try to solve a problem collaboratively. If one violates this sequence or does it out of order, it is unlikely that there will be access to the cortex.

The process of Plan B provides a road map for respecting this sequence. The first ingredient is regulating, the second is

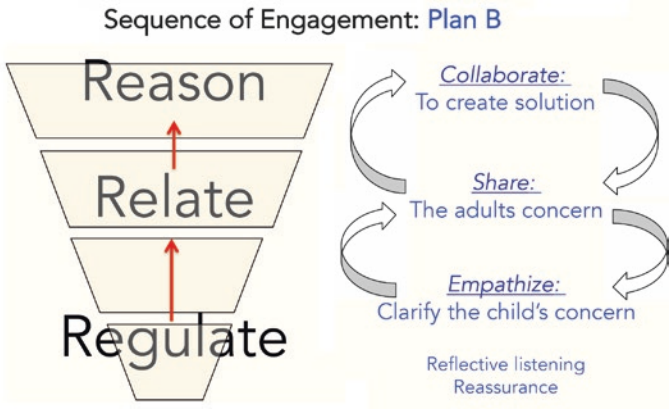

FIGURE 2.5 How Plan B maps on to the sequence of engagement for optimal information processing

relational, and the third involves reasoning. More specifically, the empathy ingredient uses reassurance and reflective listening to regulate the youth. Then the adult moves to the second ingredient, bringing up the adult concern and asking the youth to engage in shared empathy for one another's concerns, a highly relational task. Only once both sets of concerns are registered and the youth is regulated and related does the adult move to the third ingredient of Plan B. It is only in the third ingredient that the adult engages the youth in rational, cortical activity, by inviting them to brainstorm and assess possible solutions to the problem.

By repeatedly engaging in this process with youth, the therapeutic front moves up the brain over time. Initially, most of the activity in Plan B occurs low down in the brain by simply regulating the youth through repeated reassurance and reflective listening. As the adult becomes a more familiar presence and the process of Plan B becomes less novel and more predictable, the youth will feel more connected to the adult. The adult can then engage higher parts of the brain to relate and reason. The more connected the youth feels to the

adult caretaker, the more cognitive the process becomes over time, until much of the youth's work is done at the cortical level. However, the therapeutic front can shift from moment to moment and may require re-attuning in any particular interaction. Effective Plan B involves avoiding pushing forward when the youth becomes dysregulated but rather circling back and re-regulating the youth. Thus, the process of Plan B (three ingredients in a specific order, with the option to circle back when needed) provides guideposts for adults to follow in order to remain attuned and responsive to the youth's state of dysregulation. This stands in stark contrast to typical interactions with authority figures in which the adults decide when, where, how long, and what issue will be discussed. In this way, the CPS approach allows natural and healing patterns to take place.

Few therapeutic approaches provide a road map for adults to engage youth in patterned, repetitive, predictable activity that honor the sequence of engagement: regulate, relate, and then reason. For example, there is little evidence that the most popular contingency-based approaches to behavior management are effective with highly dysregulated kids, and the principles described above may explain why. With incentive-based approaches, there is an unspoken but very clear assumption that the youth's understanding of what is right and wrong (a cognition, thus based in the cortex) will guide behavior. However, this notion disregards the fact that behavior is driven from bottom-up processes. Only when a youth is well regulated can cortical processes effectively drive behavior. When a youth begins to become dysregulated and says or does something she shouldn't, most adults respond with some type of warning about impending consequences. This threat further dysregulates the youth, moving her even further away from rational, cortical level thinking, and responses. Thus, the use of mechanisms of power and control like motivational procedures which attempt to manipulate a youth's behavior is dysregulating and can cause developmental damage.

Furthermore, when youth become dysregulated and lower parts of the brain are left in charge, they typically respond impulsively and receive consequences for their behavior which are intended to deter them from behaving impulsively in the future. However, the sad irony is that impulse control is required for consequences to be effective in the first place. A youth must be able to control her impulses and access her cortex in the moment if she is going to be able to remind herself of a potential consequence and think of alterative options. Any novel, unpredictable, or threatening response to a youth that shuts the cortex down will ensure the youth will not be able to effectively reason or process and be capable of reflection. Adult caretakers often aspire to access the cortex, which makes top-down approaches appealing, but particularly with frequently dysregulated youth, effective intervention begins from the bottom up.

Finally, it is important to note that the effective sequence of engagement that we have delineated above applies to adults too. Adult caretakers cannot be expected to use the smart part of their brains to respond to challenging behavior unless they too are regulated. Even the best training in evidence-based approaches is useless unless adults can access their own cortical thinking when choosing how to intervene in the moment with youth. The CPS approach not only respects the neurobiological principles underlying the behavior of youth but also recognizes the very same principles govern adult responses to challenging behavior: a dysregulated adult will not be able to effectively intervene with a child. Fortunately, the CPS philosophy of *skill not will* is regulating for the adults contending with youths' challenging behavior. When adults view challenging behavior as a learning disability rather than as willful misbehavior, they are less likely to take the challenging behavior personally or to feel as if their authority is being challenged. Viewing challenging behavior through a compassionate rather than an affronted lens helps adults access their cortexes when responding to such behavior.

Conclusion

CPS represents an effective trauma-sensitive (see [2]) approach that operationalizes what is known about the neurobiological mechanisms underlying behavior change. The mind-set of CPS coupled with a simple framework for prioritizing problems (the three Plans) and the specific ingredients of problem-solving (Plan B) represent an effective way to slowly detoxify interactions between youth and authority figures which have led to challenging behavior in the past. The approach ensures the type of interactions that lead to enduring change at the level of the brain, especially when brain development has been impacted as a result of trauma. This is because CPS is a relationally mediated approach that allows for sufficient repetitions appropriately targeted to the areas of the brain where the most help is needed. Solving problems collaboratively with youth using the ingredients of Plan B involve all the core elements that make neural networks change in meaningful and specific ways. The process respects and operationalizes the principles of neuroplasticity and, as such, serves as a neuroscience-directed, intentional, and effective trauma-informed intervention.

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Chapter 3
How to Apply Implementation Science Frameworks to Support and Sustain Change

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In order to achieve great things two things are needed: a plan and not quite enough time.

-Leonard Bernstein

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Introduction

As human service providers, we share a common goal of improving the lives of all constituents we serve. In order to best meet the complex needs of our constituents and identify long-term solutions that have contextual fit in their lives, providers need to draw upon evidence-based practice (EBP) or evidence-informed innovations (EII) that have demonstrated that the desired outcomes can occur. Organizations and agencies may use a variety of avenues to select and begin to install a new program or practice. Typically a leadership team is formed to explore potential solutions. Some common strategies leadership teams use may include one or more of the following:

1. Working directly with program developers or purveyors to receive guidance for possible solutions and to learn about the specific conditions that are needed to ensure the EBP/EII can be implementation as intended
2. Reviewing and choosing EBPs/EIIs from a national registry or a clearinghouse to learn more about strengths and limitations of a variety of EBP
3. Building in a mandated programs or practices and in this case, they are tasked with embedding or prioritizing the use of the program in their local community
4. Reviewing recommendations and/or the activities of practitioners within their own organization and agency to learn more about what individual providers may be using successfully

Although these strategies for selection of a new initiative are not an exclusive list, it is helpful to reflect on what this process entails within one's own organization or agency.

Tip 1

- *Does your organization or agency have a process for careful selection of new initiatives/EBPs/EII?*
- *Is it standardized (used for all initiatives)?*
- *Is the process documented? Where?*

However, moving from science to service is hard work. Simply selecting an initiative that will meet the needs of constituents is only part of solution. This can be evidenced by reviewing initiatives within and agency or organization that had a lot of potential, but did not sustain, or perhaps it didn't produce the desired results for constituents. There needs to be a focus on using effective implementation strategies to be able to fully integrate and align the multitude of initiatives providers are expected to implement and to be able to provide the supports of training, coaching, and time that providers need to be able to implement the selected EBP/EIIs as intended. To truly install or implement any initiative, there are several decisions, actions, resources, and reorganizations that need to happen in order to create the conditions for organizations to apply policies, systems change initiatives, and EBPs/EIIs as intended. By not focusing on both EBPs/EIIs and implementation methods and processes, results for constituents will likely be highly variable, and may not have the expected outcomes. In addition, not paying attention to building an implementation system that is hospitable for the EBP/EII adds burden to the providers who are left to "figure it out" on their own. A helpful way to consider the essential ingredients is to look at graphic of what is known as the Formula for Success (Fig. 3.1) [21].

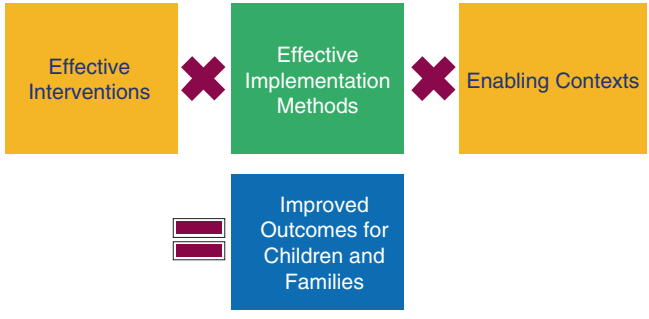

Figure 3.1 Formula for Success. (Adapted with permission from Implementation Scientists (2018) and [21])

The formula articulates that if an organization or agency wants to achieve positive outcomes, Effective Interventions (e.g., EBPs/EIIs), Effective Implementation Methods (e.g., Implementation Science), and Enabling Contexts (e.g. policies, community demand). This multiplication equation was conceptualized to highlight that a zero in any one of the variables equals zero. Thus the distinction and relationship between *intervention* components and *implementation* components and being able to leverage what is currently occurring within the agency or organization *context* are essential to replicate, scale, and sustain the positive impacts of EBPs/EIIs in the human services sector.

The purpose of this chapter is further to introduce what is meant by "Effective Implementation Methods" and explore the science behind implementing and sustaining programs such as Collaborative Problem Solving (CPS). This chapter will provide an overview of an emerging field of Implementation Science and use a predominate and practical set of frameworks, named the Active Implementation Frameworks (AIF) [5, 10, 11, 21], to offer readers some considerations and strategies for improving implementation systems and quality of implementation for any EPB/EII. Finally, the fourth author shared his experience of how multiple organizations worked together to begin the process of adopting and applying CPS into complex settings. As will be articulated in the case study, some elements of the AIFs were applied intentionally, and the teams continue to build their capacity to fully integrate CPS and Implementation Science to achieve meaning outcomes for their constituents.

Implementation Theory: Defining Applied Implementation Science

Current research, policy, and experience demonstrate that focusing solely on interventions does not lead to high-fidelity use of the intervention. The acknowledgement of the need to pay attention to the implementation process is not new. Baer,

Wolf, and Risely [1] articulated the gap in understanding the conditions of using EBPs as intended. The National Institute of Health reported that only 17% of patients benefit from medical innovations, partially due to the fact that adherence to the protocol is fairly low [2]. This problem cuts across all human service fields. For example, the National Center for Education Statistics (NCES) publishes annual reports on the reading and math process across different grade groups across the United States. The results also appear to be grim in that over four decades of reporting student reading scores, there has been little to no increase in levels of reading proficiency (https://nces.ed.gov/fastfacts/display.asp?id=38) [20]. This is not due to lack of effective educators, funding, or access to EBPs/EIIs. It is an implementation problem. There are many other examples of well-meaning providers, leaders, researchers, professional learning providers, and policymakers growing frustrated with the actual impacts on their constituents. The frustration has leaning on science for solutions and approaches that work. These solutions can be found in the field of Implementation Science (IS).

Implementation Science (IS) can be defined as "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice" [8, p.1]. In other words, it provides a systematic and intentional strategy of utilizing best and promising practices to build implementation capacity within and across any system [5, 7, 10, 18]. Embracing an "active" or intentional approach works because it shifts the burden of accountability away from individual staff providing the interventions and places it on the system. This may mean aligning professional development activities, supporting organizational shifts such as changes in scheduling, job responsibilities, and shifting resources, and creating pathways of communication with stakeholders, such as families, clients, community members, and policymakers.

Building upon the IS literature and the gaps in the intervention literature, Meyers et al. [18] reviewed and compared 25 frameworks used to articulate how to take a program from research to practice and how to make purposeful decisions

regarding a program's applicability in complex settings. This review highlighted the AIFs [10, 11] as one of the frameworks that integrated research-based elements known to align systems and ensure that capacity of implementers are supported. The AIFs (see Fig. 3.2) are made up of five separate yet overlapping frameworks designed to provide practical and actionable steps for any organization striving to implement an EBP/EII or system change. The five frameworks are:

1. Usable Interventions (What is "it" that are we trying to implement?)
2. Implementation Teams (Who is responsible for this work?)
3. Implementation Drivers (How do we build and align an implementation system?)
4. Implementation Stages (How/when do we build the system for sustainability?)
5. Improvement Cycles (How do we build the system for continuous improvement?)

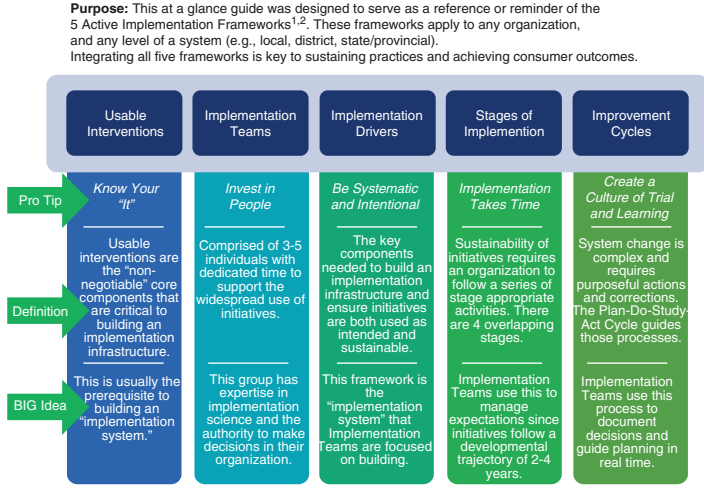

Figure 3.2 Active Implementation Frameworks at a Glance. (Adapted with permission from © Implementation Scientists, LLC 2018)

These five frameworks were developed through intensive reviews of the implementation, diffusion, and evaluation literature across various sectors including health, mental health, agriculture, business, and banking to identify what were the essential components for successful application of large-scale programs and practices. To further validate the experimental facilitators and barriers to the implementation process, program developers and leaders around the globe were interviewed to learn about practical and actionable strategies for building the implementation system needed to deliver the interventions reliably. All of these data and information resulted in many lists. Through this knowledge and practice, these lists were applied, tested, and improved into what is known as the AIFs. Professionals who learn about the five frameworks find that they are highly applicable and usable in their organization. Many times they have found that IS was the missing piece to their work or that they were doing many of the implementation practices in some way, they just were not intentional or consistent in their use.

Usable Interventions: The "It"

Leaders, administrators, and practitioners share a common goal – that is to ensure that clients receive ongoing high-quality services that meet their specific needs. A growing base of EBS/EIIS coupled with a need for practitioners to be fluent in more than one program, it is often challenging to choose a strategy that can be sustained over time or scaled across an entire organization or system.

A common barrier to moving from theory to practice in an organization is that the practice is not very well defined. Having a clear sense of what "it" (the EBP/EII) actually is and what are the behaviors in practice (regardless of the level of a system) is a necessary prerequisite to building an implementation system. The Usable Intervention framework, the first of the five AIFs, focuses on innovation clarity of an Effective Intervention as a prerequisite for implementation.

According to Blase and Fixsen [3], in order for an intervention to be deemed usable by practitioners in a typical service setting and clear enough to create an effective implementation infrastructure to support practitioners who are using "it," four features are required: (1) clear description of the context for the program, (2) clear essential functions that define the core components of the program, (3) operational definitions of those essential functions that detail the behavior and activity of practitioners, and (4) practical performance assessment (e.g., fidelity) that can be carried out in typical service settings.

Some strategies to help ensure that the core components of the intervention are clear may include working with the program developer directly or gathering a team of individuals that have experience with the intervention to define the non-negotiable core features. The Collaborative Problem Solving (CPS) model, for example, has clearly defined components as described in Chap. 7. Also to ensure fidelity, specific tools are offered for the developers of CPS.

Tip 2

- *Does your team know your "it"?*
- *If you are adopting CPS, is everyone on the team clear on the non-negotiable components of CPS?*
- *Are the behaviors of providers and families clearly defined?*
- *Does your organization consistently collect and use CPS fidelity data? How?*

Implementation Teams: The "WHO"

The "who" of building implementation capacity, and the second AIF, are the members of an Implementation Team. Creating systemic change cannot be done by one person – it takes a team. Implementation teams are key to increased success and efficiency of implementing effective programs that demonstrate results. Research has shown the value of Implementation Teams by reporting that without the support of Implementation

Teams, 14% of implementation attempts are successful and it takes 17 years to achieve these results. However, with the support of Implementation Teams, successful implementation increases to over 80%, and it takes 3.6 years to achieve these results [2, 12, 19]. Metz and Bartley [17] commented on the fact that "creating Implementation Teams that actively work to implement interventions results in quicker, higher-quality implementation." However, in order to provide Implementation Teams with the opportunity to engage in such important work, these activities cannot occur by adding on to someone's existing workload or expecting them to engage in this work "on the side of their "desk." Implementation Team form and functions need to occur at the organization level *on purpose for purpose.*

Implementation Teams are a dedicated group of people who are accountable for ensuring the purposeful and proactive use of implementation practice and providing the active systemic supports needed for success [6, 7]. The Implementation Team remains accountable to ensuring practitioners continuously achieve fidelity by purposefully putting implementation systems into place. Implementation Teams also have the opportunity to support more than one level of an organization or system. For example, in the education system, a state- or provincial-level Implementation Team may support and create regional and district-level Implementation Teams. District-level Implementation Teams create and support Implementation Teams at the school level. This cascade of aligned and integrated supports helps ensure that the resources that front line staff need in order to deliver the intervention are in place.

According to Fixsen et al. [10], Implementation Teams typically include three to five core individuals who have expertise in system change, the implementation of EBPs/EIIs, and Implementation Science and leadership. One way that Implementation Teams differ is the dedicated time they have to focus on implementation activities [6] and are intended to stay in place for any EBP/EII adopts. This differs from more tradition teams found in organizations that bring talented individuals together for a short period of time to problem solve around a challenge or time-limited event, as their function includes sustainability strategies.

Key activities for members of the Implementation Team include identifying current system strengths in an organization and installing a new program systematically by building readiness across the organization and informing stakeholders. Successful Implementation Teams also engage in continuous improvement processes to implementation to inform decision-making and problem-solving. It is recommended that an Implementation Team include leadership and/or administrators so that decisions for system change activities can occur fairly rapidly.

A helpful strategy for current and prospective CPS implementation efforts is to determine whether or not the functions of an Implementation Team exist within the organization. If it does, a next step to ensure sustainability is to determine if members of that team has sufficient time and expertise to engage in implementation activities as designated in their job descriptions or as part of their assigned FTE (full time equivalency) duties. A further support for the activities and sustainability of a CPS Implementation Team is to develop a team Terms of Reference or charter that describes priorities, key functions, how the team makes decisions, where they are situated in the organization, and what the expected deliverables. Successful teams regularly use and review the Terms of Reference to guide their work plans and to stay on course. Terms of Reference as a tool and a process that the Implementation Team uses on a regular basis helps them keep on track (function of the group), details priorities (goals, deliverables, and communication protocols), and helps ensure they have the time and space to focus on aligning targeted initiatives (e.g., CPS).

Tip 3

- *Does your organization have an Implementation Team?*
- *Does your organization have a CPS Implementation Team with dedicated time that is part of their job description?*
- *Do any of your existing teams have a Terms of Reference that is regularly used and updated?*

Implementation Drivers: The "HOW"

Every organization has many strengths. This may include some combination of talented individuals, efficient processes, and effective services. In addition, most organizations have adopted more than an EBP/EII to best serve the need of their consumers which often results in more than one system practitioners need to navigate. *So how does a CPS Implementation Team ensure that there is a system to support the high-fidelity application of CPS?* The solution is to find what processes are working well in an organization or agency *and* ensure that the "drivers" of system change are linked.

The Implementation Drivers framework describes a set of best and promising practices that improves the likelihood of creating an efficient and aligned system that will support the use of the selected intervention so that the intended outcome can be achieved. Identified by Fixsen et al. [10, 11], Implementation Drivers can be organized into three categories:

1. *Staff Competence*: Supports for personnel in their use of the EBP/EIIs
2. *Organization Supports*: Align programs, policies, procedures, and opportunities to ensure EBPs/EIIs are able to be used as intended and achieving desired outcomes
3. *Leadership*: Builds leadership capacity and support across an organization

   A helpful way to conceptualize the drivers is to organize them in a triangle [9] (Fig. 3.1).

All of these drivers are organized on purpose to lead to fidelity of an EBP/EII, an agency-wide framework, or a system change initiative. In successful implementation systems, drivers are fully integrated. In newer or fragmented implementation system, strong drivers will compensate for weaker ones. For example, an agency that employs effective coaching to support practitioners (strong driver) but has weaker training opportunities (weak driver) for practitioners may still be able to demonstrate the use of the new EBP/EII because the

coaching compensates for the training. Overtime, the agency in this example may choose to focus on improving their training driver to achieve desired outcomes.

Competency Drivers

These include fidelity, selection, training, and coaching drivers. This category of drivers helps ensure the development of staff confidence and competence in the use of the new intervention, program, or practice. Beginning with having defined *fidelity* (Usable Intervention framework helped with that), *selecting* individuals with the skills needed to carry out the EBP/EII or know what skills are needed to carry out the intervention is essential. If an individual or group of individuals do not have all of the skills needed to implement the program, targeted and efficient *training* would then be provided to develop and encourage the use of those skills. Finally, as documented by the well-known meta-analysis by Joyce and Showers [15], training of fragile new skills should always be accompanied by *coaching* in order to lead to behavior change.

Organization Drivers

These three drivers, Decision Support Data Systems, Facilitative Administration, and Systems Intervention, provide the structure for ensuring that EBP/EIIs are used as intended. A robust *Decision Support Data System* is critical in advising the Implementation Team on how well the intervention and implementation processes are functioning**.** Through *Facilitative Administration*, additional resources and supports can be put into place, and barriers can be intentionally removed within the organization or agency so that the EBP/EII can be used with fidelity. When challenges to supporting this new work arise extend beyond the scope of the agency or organization internally, the use of *Systems Intervention* may be required in order to build a more supportive context.

Leadership Drivers

Leadership is the foundation of selecting, supporting, sustaining, and any new EBP/EII and in many cases more than one EBP/EII. Drawing on the work of Heifetz and Laurie [13], there are two leadership styles, *adaptive* and *technical*, required to address the many challenges associated with disturbing the system (status quo) and making room for the new EBP/EII. Technical leadership is required when there is a straightforward problem that has a straightforward solution such as needs for materials or more coaching. Adaptive Leadership is required when the problem or the solution is not entirely clear or the solution requires a nuanced response. An example of this would include a lack of buy-in for the new EBP/EII and a sense of loss that other programs may be discontinued.

Identifying and leveraging the current Implementation Drivers that are in place to support of sustain the use of CPS are crucial to ensure the high-fidelity application the model. They also help create a mechanism to ensure that clients can continue experiencing the benefits of the CPS process regardless of the number of other EPB/EIIs are adopted by an organization or agency.

Tip 4

- *Select one of your organization's strongest initiatives and think about the following.*
  - *Which of the Implementation Drivers are strongest? How do you know?*
  - *Which of the Implementation Drivers are weak? How might you improve it?*

Stages of Implementation: The "When and How"

Sustainability of CPS or other EBP/EIIs is the goal. The implementation capacity process follows a developmental trajectory from the initial identification of a service gap for consumers to the use of an EBP/EII as part of an organization's culture.

Research has shown that successfully implementing a program or practice can take from 2 to 4 years [11, 18] to reach the Full implementation stage. The full Implementation stage is reached when the use of the EBP/EII becomes visually part of an organization's culture and reliable consumer outcomes are being achieved.

According to Fixsen et al. [10], implementation is a process that occurs in four nonlinear but discernable stages: Exploration, Installation, Initial Implementation, and Full Implementation. The focus of each stage of Implementation is to create a sustainable implementation system. This system is comprised of essential components (drivers) that have shown to support the successful implementation of programs or practices. Understanding these key activities within each developmental stage allows for intentional planning and matching of activities, efforts, and expectations to the relevant stage, thus increasing the likelihood of successful implementation and sustainability of the change process.

Exploration

The first stage of implementation is Exploration and involves developing stakeholders buy-in and involvement, identifying the need for change, understanding the current state, assessing and creating readiness for change, assessing barriers, exploring potential interventions that may provide solutions, and making an informed, consensual decision on whether or not to proceed (Video 3.1).

Installation

This stage is considered the active planning phase of implementation and is designed to ensure everything is in place to effectively use the EBP/EII. This stage involves determining the composition of the Implementation Team, establishing the resources needed to carry out the intervention with fidelity, identifying structural and functional changes, determining work flow processes, addressing barriers, and proposing sys-

tem solutions and planning for each Implementation Driver. Communication to stakeholders internally and externally to the organization is critical. Clarifying what this new program will entail and creating transparency for how decisions are being made will also promote intervention uptake.

Initial Implementation

Initial Implementation is the third stage; it begins when the new EBP/EII is tried for the first time. The implementation plan developed during installation is executed, and the use of rapid Improvement Cycles ensures continuous improvement and adherence to fidelity. This stage presents several challenges since practitioners are attempting to use a new approach or skills for the first time. In addition challenges of establishing and sustaining change are most predominant. Crucial to successfully moving through initial implementation is support from Implementation Teams at the practice, organization, and system level. Implementation Teams will typically rely heavily on reviewing their implementation strategies and utilize coaching supports to assist uptake.

Full Implementation

This stage is reached when the new practice or program is well integrated in everyday work – it is "business as usual," the standard way of work. An organizational indicator of reaching this stage is that 60% of the individuals who should be using the intervention are doing so with high levels of fidelity. Ongoing support is needed to ensure fidelity as staff, organizations, and systems continue to change and transition and improvements and adjustments are actioned.

Knowing how to assess an organization or agency for its current stage of CPS implementation will help the CPS Implementation Team know how much technical assistance or targeted support is needed to move to latter stages of the implementation process or sustain the desired implementation efforts in the Full Implementation stage. Another advantage of

knowing the current stage of CPS implementation is that it allows leaders and funders match expectations to current levels of implementation. Paying attention to key milestones and activities across all of the stages ensures major changes such as staff turnover, leadership change, loss, or increase of funding, and new mandates will not significantly impact the CPS implementation infrastructure that had been developed.

Tip 5

- *Select one of your organization's strongest initiatives and think about the following:*
  - *Which of the Stage of Implementation sounds most like where the initiative is?*
- *Think about an initiative that did NOT sustain:*
  - *Were there any activities or Stages that were skipped over? Which one? Why?*

Improvement Cycles: The "How"

Improvement Cycles are a helpful set of processes for leadership and Implementation Teams to make decisions systematically while engaging in continuous improvement. The fifth AIF is the use of Improvement Cycles. It is important to make intentional changes to the system in order to support new ways of work and in order to maintain and/or improve quality. Improvement Cycles are the means by which systems understand their current strengths in order to build upon them. Improvement Cycles also are used to address barriers or ineffective practices by creating improvement plans, engaging in the improvement processes, assessing the impact of executing the plan, and then repeating this cycle as necessary. The goals of Improvement Cycles are to decrease burden, improve efficiencies (e.g., to staff and resources), improve outcomes for consumers, and increase the likelihood of new EBP/EII sustainability.

A commonly used Improvement Cycle process is called the "Plan-Do-Study-Act" (PDSA) cycle [4, 14]. Although the key

elements of the PDSA process were developed from manufacturing, this systematic approach is highly applicable to human services to reliably produce outcomes, maintain quality, and create efficiencies and can be applied at varying scales to help achieve alignment. The most common use of Improvement Cycles by Implementation Teams is for rapid-cycle decision-making. As the components of the PDSA cycle implies, the process works in the following way. In the "Plan" part of the cycle, the Implementation Team uses the best information it has available to develop a plan for what they want to achieve and how to go about it. The next step is to "do" it or put the plan in motion. Once that portion of the cycle is completed, the "study" phase begins. Analysis of the data collected helps determine what worked and what needs to be adapted. The "act" phase of the cycle triggers actions based on the results of the study phase, and at this point, the Implementation Team may choose to engage in another round of the PDSA (called Usability Testing) or end the cycle since sufficient information was gathered. Usability testing occurs most intensively during the Initial Implementation Stage.

A major benefit to using Improvement Cycles is that it promotes deliberate changes and provides opportunities to make necessary adjustments, incrementally. Documenting these cycles creates an institutional memory of decisions made and lessons learned that can be passed on to future stakeholders. It also helps keep stakeholders informed of the activities occurring and can provide new opportunities to include their feedback. As a result, this process helps create a supportive environment for evidence-based programs and practices to thrive and builds a culture.

Tip 6

- *Describe a time you and your team used the Plan-Do-Study-Act Cycle.*
- *What is something you learned about the problem by working through a PDSA?*
- *If you have not tried the PDSA, what is a problem this process may help you resolve?*

Summary

To successfully achieve our goal of improving outcomes for all of our constituents, we need to work together and intentionally apply and leverage all variables of the Formula for Success (Effective Interventions X Effective Implementation Methods X Enabling Context). In addition leadership teams/decision-makers need to be very intentional about to selecting on EBPs/EIIs that align with the needs of constituents, and what an organization has the capacity to fully implement that EBP/EII as intended. Furthermore, attending to the *What, Who*, *When*, and *Hows* of the AIF affects the predictability and achievability of the intended outcomes. This means investing in Implementation Teams as a permanent part of an organization. Implementation Teams can help translate the science to service by clarifying expectations aligning supports for implementers, helping provide timely supports based on the needs of implementers, leveraging the Implementation Drivers that are strong while building the ones that are weak in a staged fashion, and using Improvement Cycles to make actions and corrections in real time. Together, these key actions compose evidence-informed and evidenced-based practices for effective implementation.

Moving from the overview of the science of implementation to the practice of the "apply it" tips, the following is a case example to share how a leadership team began the process of adopting CPS and working toward applying Implementation Science best practices in an effort to ensure high-fidelity implementation and sustainability.

Getting Started: A Case Example of Implementation of CPS in Ottawa, Canada

The following is case example led by the fourth author that demonstrates how a cadre of organizations began to organize around the Formula for Success [21] *to help improve outcomes for children and youth in a Canadian city. This case example*

highlights how some of the Implementation Science best practices were applied to help improve the uptake of CPS.

Enabling Contexts

In 2009 a system review occurred in Ottawa, Canada, focused on understanding the experience of children, youth, and families in the mental health service sector. This review included interviews with children/youth, family members, informal supports, and service providers. As a result of the review, a decision was made to explore an evidence-based approach to treatment that would address a consistent concerned raised by families related to seamless services for children/youth. Specifically, families raised concerns about being introduced to multiple treatment approaches if being served in more than one organization. This also included concerns about having made gains in one organization to later have to begin again with a brand-new approach when they started in another service provider's organization.

Effective Interventions

This was an opportunity to respond with a concrete change to the service system in Ottawa in direct response to feedback from children, youth, and families. In order to meet the call to action raised by the community, five child and youth serving mental health organizations came together to begin identifying some potential solutions for addressing such an urgent need. An initial step the team needed to take into consideration before adopting any initiatives to help resolve these complex challenges was to take into consideration what systems were currently in place. As a community, Ottawa service providers embarked on adopting the System of Care framework as a decision-making tool within the mental health sector. The Child and Youth Mental Health Network (CYMHN) comprised of Executive Directors of child and youth serving organizations were introduced to the concept of System of Care and then adopted structurally this approach in the context of decision-making related to the sector. The System of

Care is defined as a comprehensive spectrum of mental health and other necessary services which are organized into a coordinated network to meet the changing needs of children and adolescents with significant mental health concerns. The system of care philosophy is built around three core values: (1) child centered and family focused, with the needs of the child and family determining the services provided; (2) community-based, providing less restrictive services (than previously provided in institutional facilities) within the child's home community; and (3) culturally competent, in which culture, ethnicity, and cultural contexts are taken into account in the provision of services [22].

The acceptance and adoption of philosophy surrounding a System of Care provided a solid foundation for the selection of any new initiatives. To be considered for adoption to meet this need in their community, initiatives need to align with the three core values stated above. Furthermore, the team agreed and utilized the following ten system of care guiding principles:

1. Children with emotional disturbances should have access to a comprehensive array of services that address the child's physical, emotional, social, and educational needs.
2. Children with emotional disturbances should receive individualized services in accordance with the unique needs and potentials of each child and guided by an individualized service plan.
3. Children with emotional disturbances should receive services within the least restrictive, most normative environment that is clinically appropriate.
4. The families and surrogate families of children with emotional disturbances should be full participants in all aspects of the planning and delivery of services.
5. Children with emotional disturbances should receive services that are integrated, with linkages between child-serving agencies and programs and mechanisms for planning, developing, and coordinating services.
6. Children with emotional disturbances should be provided with case management or similar mechanisms to ensure that multiple services are delivered in a coordinated and

therapeutic manner and that they can move through the system of services in accordance with their changing needs.
7. Early identification and intervention for children with emotional disturbances should be promoted by the system of care to enhance the likelihood of positive outcomes.
8. Children with emotional disturbances should be ensured smooth transitions to the adult service system as they reach maturity.
9. The rights of children with emotional disturbances should be protected, and effective advocacy efforts for children and youth with emotional disturbances should be promoted.
10. Children with emotional disturbances should receive services without regard to race, religion, national origin, sex, physical disability, or other characteristics, and services should be sensitive and responsive to cultural differences and special needs.

Key to the system of care process is system management, to coordinate and assess the service components within the system [22]. These core values and principles since adopted by Ottawa provided an impetus to system change to better meet the needs of children, youth, and families in the Ottawa area.

Although this process took time (approximately 6 months) having a clear understanding of the needs of their community, achieving consensus across all five organizations about core values, philosophies, and intended outcomes for children, youth, and families, they needed to find a common "intervention" that would help achieve those goals. The team then began a systematic review of various treatment approaches that were either evidence-informed or evidence-based practices. After an extensive review, a decision was made to adopt Collaborative Problem Solving (CPS) as a common treatment approach. CPS was selected because the approach was grounded in a philosophy as well as developed to address the needs of children from 3 to 18 years of age which met the needs of the various organizations in the Ottawa community.

A strength of the CPS model was that it was grounded in a philosophy and a belief that aligned with the values of the local community. In terms of philosophy, the approach was premised on the understanding that kids do well if they can (as described in earlier chapters) and that children struggle because of lagging skills rather than a result of parenting. These CPS offered nonnegotiables strategies that would help achieve the needs and goals set forth by the community, so it was selected as a common treatment approach that would be adopted and used across five organizations. Seven leaders (champions) that were representative of the five organizations participated in the decision-making process. CPS was the "it" from an implementation process that would be used as the "intervention." The next step is to focus on "how" to put CPS into practice.

Effective Implementation Methods

Critical to the implementation process are the development of *Implementation Teams* to help move the proposed change forward. The selection team mentioned above decided to continue serving the role and function of an Implementation Team. Since this first-generation work was led by five separate organizations, the cross-agency CPS Implementation Team formed needed a way to learn about CPS and the barriers of Implementation together. Forming a formal community of practice (CoP) [16] served that need. In order to build internal capacity, the CPS Implementation Team first sought out training directly from the program developers. A total of seven champions (including all five members of the CPS Implementation Team) attended training in person for a period of 3 days. Once the CPS team gained sufficient fluency, their next task was to create and support Implementation Teams within each organization which will be described later.

The CPS Implementation Team worked together for approximately 1 year on a weekly basis to support organizations in the first two *Stages of Implementation* – the

Exploration Stage to the *Installation Stage* of CPS. To ensure that staff were supported to build their own skill sets with CPS, the CPS Implementation Team partnered with Think:Kids at Massachusetts General Hospital, Department of Psychiatry, on a weekly basis to build their own skill set so that they could coach others in the approach. These weekly meetings included formal training on how to apply CPS, to address questions, and to discuss implementation challenges. An interesting finding through this process was oftentimes implementation challenges experienced in one organization were common to the other organizations that participated in this group.

Upon completion of formalized training sessions, the CPS Implementation Team began reviewing and developing a plan for implementation of CPS within their respective agencies. Once buy-in of staff was achieved within each of the five organizations, the CPS Implementation Team agreed to start working toward aligning and building the implementation infrastructure needed to support the high-fidelity use of CPS. As Implementation Drivers (Fig. 3.3) serve as the building blocks to the implementation infrastructure, all the arms of the triangle need to be systematically and intentionally linked

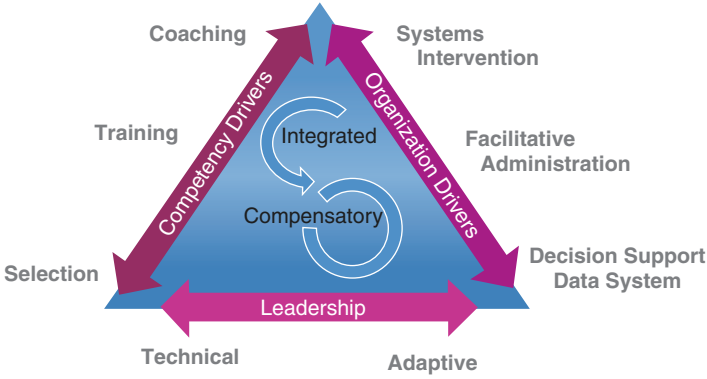

FIGURE 3.3 Implementation Driver triangle: Performance Assessment (Fidelity). (Adapted with permission from Duda and Wilson [7]; Fixsen et al. [9])

or created. This is achieved by building on the system strengths (drivers) that are currently in place within the organization. In this case example, the CPS Implementation Team chose to start with the *Staff Competency Drivers.* These drivers include *Performance Assessment (Fidelity)*, *Selection*, *Training*, and *Coaching.*

To help achieve building staff confidence and competence in the use of CPS as part of their regular practice, three of the core sites involved in this implementation effort also created their own internal Implementation Teams. The intention of creating site-level Implementation Teams, organizations were able to customize and facilitate the implementation of CPS more efficiently since there were individuals with time and space allocated to do this important work. Site-level Implementation Teams were intentionally linked with the CPS Implementation Team for ongoing supports and assistance for overcoming implementation barriers through the community of practice meetings.

After the first group of implementers were identified (*selection driver*) at each site, the cross-agency CPS Implementation Team helped secure training for selected staff. The *training driver* was activated through formal training events by Think:Kids and also through case study presentation and discussions during weekly meetings. This became the focus on the CoP in its second year of operation. In effect, the first-generation Implementation Team expanded to include new organizations in the community interested in learning and implementing the approach in their own settings.

Since the focus of these training events was about behavior change of providers, *coaching* (another Implementation Driver) was embedded in the implementation action plan. Coaching was achieved in two ways: the first was through individualized coaching provided by the seven members of the CPS Implementation Team and the second way coaching was provided during the regular meeting time (CoP time). Coaching during the regular meetings included case exemplars and a focus on implementation barriers and facilitators.

The final Competency Driver leveraged was the *performance assessment/fidelity driver*. Through close partnerships with the CPS developer and through the support of the CPS Implementation Team, fidelity was monitored on a regular basis through a tool used at the CoP when discussing cases. Lesson from the fidelity tool allowed the Implementation Team to coach others around fidelity related to CPS. It is important to note that the steps described in building the competency drivers was an initial effort at the cross-agency level. More attention to improving processes at the cross-agency and within the sites is needed to ensure that all staff have the competence and confidence to implement CPS with fidelity. It is also important to note that each agency engaged in the implementation process with various levels of intensity.

Due to various levels of buy-in and capacity within each site level organization, as expected, there was variability in levels of organizational and systems change that occurred to create the "room" for CPS to be fully implemented. However, in this initial work, and within a short-time period (2 years), some sites have begun to develop some Organization Drivers. These lessons and strategies will be able to be shared and possibly replicated across other organizations who are in earlier Stages of Implementation. Some examples of *organizational drivers* that were levered at the site level included:

- Providing scheduled time for employees to engage in use of the approach with clients involved in the services.
- Changes to documentation to align with the philosophy inherent in the approach; changes to team meeting structures to ensure consistency with the components of CPS and to provide employees with a structure to help address their needs.
- The implementation of new outcome evaluation measures to ensure that impact of the approach was being evaluated.

In one organization the outcome evaluation measures were used to compare their outcomes before using CPS to post

implementation of CPS, to determine if services were now more effective as a result of the approach. This enabled those using the approach to see that their service had improved outcomes in turn, reinforcing the use of the approach in that organization.

Impact

Coming together across organizations to meet the needs of their shared community was an important action. Since implementing CPS in the Ottawa community, a number of organizations have successfully operationalized CPS into their services in a meaningful way. Of the five organizations initially trained in the approach, four of those organizations continue to provide CPS as one of their primary modalities of treatment. This group has since expanded to include three other organizations that have included CPS as their mode of treatment which has resulted in an even more seamless system for children, youth, and families. In particular, for clients that have made gains at one organization, they are now able to transition to the next service using the same approach to continue to move forward with those gains. Another positive impact has been that the francophone community has become very involved in using CPS which has resulted in many of the tools used in CPS being translated into French language and curriculum being adjusted to address francophone needs. At one organization the CPS approach was adapted to use in supervision with employees as an innovation related to CPS (discussed in detail in this book). Lastly, after having implemented CPS, the CPS Implementation Team was able to do a follow-up system review and received very direct feedback from families involved in that review around how they appreciated the use of CPS with their family.

Next Steps

Although the initial rollout of CPS is promising, there is still much work to be done to ensure that CPS is implemented with fidelity and sustainable so that today's youth can con-

tinue to benefit. To date, the Ottawa community continues on its path of CPS implementation which has resulted in the growth of the CoP. A continued investment of funding and time to support the CoP will be essential to improve the fidelity and replication of CPS. The expansion of the CoP will also be explored to include vital stakeholders such as school boards, francophone services providers, child welfare, privately operated group homes, college representation, police services, youth justice organizations, and community resource organizations to bring together collective expertise. In addition, the supports for the Implementation Teams at both the site levels and the cross-agency level (CPS Implementation Team) will be explored in terms of solidifying membership and providing the time and resources they need to build implementation capacity within their organization. Building Implementation Team capacity for how to apply AIFs (Implementation Science fluency) and how to roll out CPS (intervention fluency) with fidelity needs to be a priority. As we learned from the Stages of Implementation, it will be important to define what stage of implementation each site is at, at to provide sites with timely coaching supports depending on the Implementation Stage. Finally, documenting processes, lessons, actions, and corrections will be important to creating alignment across all sites in the community. Using the Plan-Do-Study-Act Cycles, all teams will benefit from intentional and continuous improvement.

Bridging Research to Practice and Practice to Sustainability

Why does Implementation matter? Implementation Science offers an evidence-based process for bringing research to practice in a road map with predefined processes that is also flexible to local adaptations. A common challenge is finding EBPs at the system level that would be able to be implemented locally. However, by having a framework to define core components of an EBP/EII and take into account local needs, local

communities were able to find their own strengths and move at a pace that would help them build a long-term process.

It is clear that applying *active implementation* is critical for large-scale and complex system changes. Selecting a viable and Usable Intervention, coupled with an engaged leadership and Implementation Team, is key to building and effective implementation system. The *Stages of Implementation* help pace the installation process with the necessary rigor to help manage expectation and support staff. *Implementation Drivers*, the building blocks for developing an Implementation infrastructure, help identify current system strengths and develop alignment to use interventions such as CPS as intended. Finally, the active use of *Improvement Cycles* for evaluation allows the intervention and the implementers to consistently shape, adjust, and monitor the work to best fit the local or system implementation environment.

Whether planning on adopting CPS for the first time, or to refine or scale-up ones current CPS implementation efforts, is important to invest in what works. Focusing solely on interventions does not lead to the high-fidelity use of the intervention. It is at least equally as important to build on an organization's current strengths and invest in implementation system transformation. The advantage of building an implementation infrastructure that utilizes common frameworks, aligned teaming structures (Implementation Teams at all levels of the system), and common measures/protocols is that it allows each community to have the structure to move interventions into sustainable practice yet maintain sufficient flexibility to meet the needs of the local constituents. This common approach to the implementation process can support the implementation of CPS within an organization or agency and generalize to all other EBP/EII being used to support consumers with the "best" science and practice.

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Chapter 4
Implementing CPS in Clinical Settings

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As Collaborative Problem Solving (CPS) has evolved, it has demonstrated effectiveness in an increasing number of settings and applications. CPS has a philosophy that is inherently respectful and hopeful; the model is grounded in neurocognitive research, is trauma-sensitive, and can be used regardless of professional degree and role. It is for these reasons that CPS has been implemented site-wide in a variety of clinical, juvenile justice, and social service settings.

This chapter first discusses the broad applicability of the CPS approach. Then it provides an overview of general considerations that are critical to successful implementation, before turning the focus to specific considerations that are

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relevant to milieu- and home-/community-based settings. Finally, it will outline implications for implementation in community systems, including lessons learned from the authors' combined experiences in Oregon, which has been implementing CPS in various settings across the state for over a decade.

Broad Applicability of CPS

While many approaches are designed to be used only in particular settings, only for certain levels of acuity, only by a licensed clinician, or only as a stand-alone approach, CPS can be applied in programs that differ widely in these characteristics and others. The applicability of CPS across factors such as these is reviewed below.

Factor 1: Staff Credentials

Initially developed as a parenting approach, CPS can be trained to staff of all educational backgrounds. It has been successfully used by providers with high school through advanced degrees, who are licensed and unlicensed. Plan B conversations, when done to fidelity, represent the essence of person-centered interaction, helping a young person identify their concerns, describe what is of importance to them, and engage in dialogue through which self-regulatory, relational, and cognitive skills are developed. This dialogue can occur with any staff member, such as a psychiatrist, a residential direct care worker, a teacher, or a probation officer. The applicability across staff roles and credentials offers the opportunity for an organization to engage clients with a wide variety of staff, delivering small doses of CPS by every individual who has client contact.

Factor 2: Degree of Family Involvement

Degree of family involvement varies across settings that use CPS. CPS can be used in milieu-based settings absent parental involvement, home-based therapy when the entire family

is the target of the intervention, or anything in between. In settings with no family involvement, any provider with access to the youth can deliver CPS and teach cognitive skills. In settings with family involvement, the provider delivers CPS but also trains the family in the use of the model. Using CPS with families affords the opportunity to educate parents regarding their child's challenges without blaming them, helping increase their understanding of their child while learning to use the approach in their interactions. This instruction can occur through CPS trainings, groups designed specifically for families, or via individual family psychoeducation and modeling of the approach. Thus, while family involvement is not essential for success with CPS, involved families will benefit from the approach as well.

Factor 3: Level of Acuity

CPS can be used regardless of the degree of acuity of the youth being supported. It offers manageable therapeutic doses with attunement to the degree of regulation at the moment. This means CPS can be used with individuals who are well-regulated at baseline as well as with individuals who are more sensitized and struggle with dysregulation. The approach offers a crisis management process for seriously escalated situations; a spontaneous problem-solving process for moments when the youth is able to be receptive to empathy, reflection, and collaboration; and a proactive process in which the provider and youth plan for future problems. At all points on the acuity spectrum, it is important, and possible, to teach skills that will help the individual manage expectations and triggers in an enduring way.

Factor 4: Length of Service

CPS does not require that a youth and family are receiving services for an extended period of time. While repeated doses of the approach continue to build and strengthen skills, brief

exposure can also produce significant benefits. These benefits may include, for example, a youth experiencing an adult as interested and supportive for the first time, an adult coming to a new and more compassionate understanding of a youth's difficulties, or either party recognizing their ability to generate new ideas and solve problems. In any therapeutic setting, these interactions pave the way for a therapeutic alliance that can yield multiple positive impacts.

Factor 5: Coexisting Approaches

The treatment philosophies in most service agencies center around helping people make change. CPS is consonant with most philosophies, with the exception of those that espouse the use of power and control mechanisms such as reward and punishment to motivate behavior. As a fundamental interactive approach, it can be used alongside many treatment models and combined with a variety of practices that seek to help individuals learn new ways of understanding themselves and others and new skills for coping, relating, and thinking. CPS can be nested within organizational models and also provides an interactional framework that can be used in wraparound planning.

When integrating with other approaches, it is important for staff to understand the similarities and differences between CPS and those other approaches. Without this understanding, confusion could interfere with implementation. Staff may express resistance to "one more thing," even if it is compatible what they're already doing, or they may express resistance to learning something that feels contradictory to what they already know, even if it may not be.

These elements are consonant with those identified in the federal Family First Preservation Services Act [1] that was signed into federal law as part of the Bipartisan Budget Act, positioning CPS as a practice model that can be used across prevention and residential services that are the subject of the legislation.

General Considerations for Successful Site-Wide Implementation

Whether implementing across a residential therapeutic setting, juvenile justice, or home- or community-based agencies, sustainable implementation of CPS requires careful and intentional thought and planning and involves significant culture change. There are several tasks critical to successful implementation that cut across all types of treatment programs. These are reviewed below.

Task 1: Obtain and Demonstrate Commitment from Leadership

Implementation of CPS is not likely to succeed without commitment from an organization's leadership team, including the director, top administrators, and the governing body. Staff are being asked to make a significant change in how they view and think about the work. This will come naturally for some but not for others. If the leaders are unable to embrace the CPS philosophy, this will ultimately flow down to those staff struggling with the mindset shift. This can lead to disagreement within treatment teams, severely hindering implementation.

Additionally, implementing CPS is a long-term process that requires commitment of financial and human resources. Thus, the leadership team must make a sustainable commitment, as failed initiatives lead to demoralization and cynicism on the staff team. Failing and terminating an initiative because of poor planning or poor follow-through often have worse effects than never beginning the initiative at all.

Leaders pursue the implementation of CPS for a variety of reasons. The most important and enduring of these is the desire to improve the care and treatment being provided. Others include pressure from payers to implement trauma-informed treatment; a crisis that demonstrates the need for significant change in the clinical approach; seeking and maintaining a

competitive edge; responding to a groundswell from key staff; and cost savings. Boards of Directors and other governing bodies will likely be persuaded by the same types of factors, looking to match the mission of the organization with the improved outcomes and financial viability that can occur through the use of CPS.

Task 2: Secure Funding

Given that long-term sustainable implementation is a 3- to 5-year process, it is critical that initial financial resources are identified, with plans for how the overall endeavor will be funded. Over the long term, financial benefits accrue through the positive impacts of the approach (e.g., reduction of critical incidents and increase of market share); however there are significant short-term costs prior to these long-term gains. Short-term costs will include training and coaching expenses as well as resources allocated for project management, updates to policies and documentation practices, and certification of internal experts. Organizations that have undertaken this effort have drawn from a range of financing strategies, including allocation of reserves, grant-writing, philanthropy, and sharing training costs with other interested entities.

Task 3: Assemble an Implementation Team

Prior to implementation, any organization will want to assemble an Implementation Team. This is a team of staff chosen from a cross section of the organization. Depending on the size of the agency, the Implementation Team could be as few as five individuals but should always include leadership, clinical, and direct care staff. These individuals will be responsible for guiding implementation, tracking training and coaching participation, and providing liaison between staff groups and organizational leadership to bring up concerns and needs. Whenever possible, Implementation Team members should be the first group to receive CPS training.

Task 4: Anticipate Staff Resistance

Attempts to change the mindset of clinical staff, many of whom were trained in behavioral approaches, are best done in small digestible doses. A short (2 h, 0.5 day, or 1 day) introduction to CPS for staff that includes communication of commitment by the leadership team and direct connections to organizational goals (such as providing trauma-sensitive care) can increase understanding and support for implementation among staff before a very large investment is needed.

Introductory training like this will intrigue some and may elicit discomfort in others. It is likely to generate debate and dialogue. Those struggling after introductory training may say things such as, "This is what we already do," "I already read the book and tried this and it didn't work," "Kids need to learn the error of their ways when they misbehave," "I refuse to negotiate with kids," and "We will lose all control and won't be able to enforce any of our rules." It is important to allow these concerns and misconceptions to be heard and discussed. This dialogue can be more readily facilitated if leadership staff and the Implementation Team members have received training in CPS and can demonstrate solving problems collaboratively through their own responses to these concerns. With open dialogue, concerns and misconceptions will likely recede with time.

After site-wide implementation, there may be individuals or small groups in the organization who remain unconvinced and cannot adhere to the new philosophy and expectations of this approach. Eventually, leadership may need to engage these individuals in a Plan B problem-solving conversation to help them decide what to do with the dissonance they are experiencing. Key to this conversation is that the leaders will hear the staff member's concerns, and the leaders' concerns will need to be heard and addressed as well. Staff members should be invited to suggest solutions that work to address all concerns. Possible solutions may include reassignment or leaving the organization. Leaders should anticipate some staff resistance and some initial turnover; it is part of the change process.

Task 5: Implement a Full-Scale Training Plan

After introductory training, more intensive training for all staff is necessary for teaching the details of the approach, and ongoing coaching is critical. Regular coaching by a CPS Certified Trainer will help staff troubleshoot difficulties that arise in using CPS, support their efforts, and yield ongoing success at using the approach. Through this additional training and coaching, organizations will begin to see a shift in the staff culture, even if full fidelity hasn't yet occurred.

From this training and coaching process will emerge the organization's CPS champions – those who fervently and passionately believe in the approach and who are effective in using it. These staff will comprise a core group of leaders who should receive more advanced training. Some organizations provide a salary increase commensurate with the addition of job responsibilities critical for leaders in the organizational implementation of CPS. Of those CPS champions, some will become interested in being certified in the practice and/or training of CPS, and as CPS Certified Trainers, they can provide internal coaching. Long-term sustainable implementation requires having certified trainers on staff who can train, coach, and supervise other staff. Supporting professional development throughout the process also helps organizations both attract and retain quality staff.

Task 6: Review and Revise Policies, Procedures, and Documentation

Effective training of staff in the CPS philosophy and practice must be supported by modifications of the infrastructure, ensuring it is consistent with CPS. These range from organizational mission, vision, and values to job descriptions, behavior support policies, and documentation requirements. Such modifications may also include the written clinical philosophy, incident response and reporting procedures, behavior support plans, policies around youth voice and family

engagement, and essentially all aspects of the clinical life of the organization.

Making sure CPS is reflected in the documentation expectations can result in a coherent record that reflects the philosophy and practices of the approach, does not add layers of new documentation, and can be better used to measure change and outcomes. The CPS Assessment and Planning Tool (CPS-APT), an instrument developed by Think:Kids to identify challenging behaviors, their antecedents, and the lagging neurocognitive skills that may be at the root of the behavior, translates readily into most treatment and service planning formats. Additionally, embedding CPS assessment and planning into treatment plans helps drive staff attention to intervene on antecedents and triggers rather than directly on challenging behaviors and keeps them focused on skill-based goals and objectives. Finally, it can be a relief to the client when they see progress/service notes that describe the degree to which they are using relevant skills to respond to the challenges they are encountering, rather than more stigmatizing descriptions of the challenging behaviors in which they are engaging. Sustaining this effort requires ongoing attention during chart audits and documentation reviews.

CPS-consistent policies, procedures, and practice guidelines are especially important in high-intensity settings, where the frequency and intensity of challenging behavior and the level of concern regarding the seriousness of the youths' struggles are exacerbated. The stress engendered by these circumstances can wear people down, put them in a more reactive as opposed to relational stance, and lead to an elevated level of struggle and conflict. The presence of clear policies, procedures, and practice guidelines provides a fall back – a previously agreed upon point of reference – which offers grounding, guidance, and direction at these times. These written requirements also provide the baseline of expectations for CPS-consistent practice. Simple CPS mantras such as "kids do well if they can," "skill not will," and "don't let a meltdown go to waste" can be embedded in clinical philosophy, behavior management policies, and the rationale contained within practice guidelines.

Assigning a team to collaboratively update the practice guidelines and other formal statements of the organization can help facilitate this crucial aspect of implementation.

Task 7: Focus on Sustainability

Work in clinical settings is stressful, and under stress we revert to older and more practiced ways of understanding and responding to youth. Especially in intensive settings, this erosion of the CPS philosophy and practices can happen quickly. Sustaining CPS implementation requires ongoing supervision, group problem-solving among the staff, and booster training – in other words, a constant recurring agenda and focus. The leadership and implementation teams will be charged with this task.

In many youth-serving organizations across this country, change is inevitable and constant. This change may be due to staff turnover, new directors, new policies, or political or community expectations, all of which impact the ability to gain traction on any systemic change. Public and private youth mental health and correctional programs continue to be burdened by new initiatives, innovative practice, new grant-funded programs, or new federal or state regulations. These constant changes may result in initiative overload, or model fatigue, which impacts newer staff who don't feel skilled enough to implement a new initiative and the more seasoned workers who may feel apathy toward yet one more initiative. Thus, the leadership and implementation teams must have a sustainable plan for ongoing support. When things start going off track, or new staff come on board, or a new initiative comes into the community, the Implementation Team needs to help bring everyone back to the center, often using Group Plan B when necessary.

All too frequently, numbers of people trained are used as "proof" of implementation success, even if the individuals trained don't have the skills or support to use the new intervention sustainably in their work. Without knowing what CPS looks like in the daily work, leadership won't have enough

firsthand information to assess true progress or success at sustaining the approach. Counting the number of staff who completes training is just a starting place and should not be considered sufficient evidence of implementation. Programs should consider from the outset how to measure the success of the implementation (process), adherence to the approach (fidelity), and sustained results (outcomes).

Specific Considerations in the Milieu

A therapeutic milieu, whether focused on mental health or juvenile justice services, offers an ideal setting for the implementation of CPS. The predictable presence of staff on routine schedules interacting with youth who either live in the setting (residential) or are present regularly (such as day treatment) creates a container in which a common language can be established and countless repetitions that build new associations in the brain can be delivered. General implementation considerations addressed above are applicable in milieu-based programs. However there are also some specific issues related to successful implementation and sustainability in the milieu, outlined here:

Teamwork

Therapeutic milieus, including those in hospital, subacute, residential, day treatment, and juvenile justice programs, are typically organized around multidisciplinary teams. The number and variety of client-provider interactions that inevitably occur in this type of structured environment create ongoing opportunities for teamwork around behavioral support and treatment planning. However, without a shared philosophy, language, and plan, varying perspectives and roles can lead to conflict among team members or a hierarchy of those who make decisions and those who carry them out. For example, direct care staff in milieu settings are often not represented in treatment planning meetings. CPS provides a common philosophy and language for the assessment, planning, and treatment process that brings

teams together and uses every member of the team to create, update, and carry out the plan. Direct care staff are critical when it comes to implementing CPS, and as such their voices must be heard in treatment planning and update meetings.

Communication Structures

In the milieu, communication between staff across multiple shifts is a particular challenge. Using a highly individualized model like CPS will likely require enhancements to existing communication structures, for instance, to ensure that any solutions agreed to on one shift are upheld on all shifts. To address this, the organization may modify their daily report protocol such that, beyond summarizing the progress toward treatment goals for each youth in the setting, it also identifies any problem-solving conversations that occurred during the day and observed skill growth or struggles. When problem-solving conversations are planned but do not yet occur, a tracking sheet can potentially enable the conversation to be handed off between staff on different shifts or on different days of the week.

Response to Safety Issues

Milieu settings can become riddled with acting-out behavior of sufficient severity that the most immediate need becomes safety, and coercive and controlling interventions (such as restraint and seclusion) become the default approach. This is an intuitive response to the clear and present danger presented by highly escalated, out-of-control youth. While such interventions may yield immediate safety in the moment, they do not generate the skills that individuals will require to make enduring change. In fact, the greater the safety concerns, the more important it is to use CPS to plan proactively around triggers and expectations that will be hard for the youth to handle. The severe dysregulation that underlies aggressive and self-harming behaviors can be understood as a skill deficit that emerges

most prominently in response to predictable triggers and which may not respond to operant approaches and medication alone. It can be challenging for staff to remember that it is through the practice of solving real problems in a relational context with adults attuned to the dosing and spacing necessary for brain change that these skills will develop. It is incumbent upon the leadership, the Implementation Team, and the CPS champions within the organization then to stay stalwart in the face of these stresses and to support one another and the entire staff in coming to the table to have empathy, share concerns, and brainstorm solutions.

Dosing

Frequent dosing of CPS is critical for the brain change that will lead to long-term behavioral change. The therapeutic milieu allows for many opportunities to dose CPS throughout the average day. In a high acuity milieu, much of this dosing will be delivered through the use of Emergency Plan B and Spontaneous Plan B. Emergency Plan B occurs in the presence of a crisis and depends upon skillful use of the regulating tools from the first ingredients of Plan B (reassurance and reflective listening). Used correctly, these tools defuse power struggles, result in less frequent use of seclusion and restraint, and foster a less coercive and more trauma-informed culture and climate. This in turn reduces the triggers for individuals, residents, and staff alike, creating a positive feedback loop. Spontaneous Plan B occurs in response to moment-in-time requests or concerns that arise and depend upon skillful use of all three ingredients: empathizing with the youth, sharing staff concern, and brainstorming. Both Emergency Plan B and Spontaneous Plan B create repetitions of collaboration that recruit the regulatory, relational, and executive functions in the brain.

Youth Participation in CPS

Milieu settings provide a rich opportunity to educate youth regarding how to solve problems collaboratively with others, and CPS provides an excellent structure for this process. First,

youth can learn problem-solving through staff modeling. As the youth begin to experience the rhythm inherent in expressing empathy, sharing and discussing concerns, and brainstorming solutions, CPS becomes part of their repertoire. Second, youth can learn problem-solving through psychoeducation, individualized to their level of interest and cognitive ability. As youth experience incremental gains and successes from the approach, many naturally want to learn more about it. In the presence of sufficient developmental and academic competency, books and readings about CPS can be made available to them. The core elements of the model can be taught in groups or classroom settings.

In our own treatment setting, we have seen this empowerment leads to situations in which the individuals being served help staff remember to use CPS.

> *Alex, an 18-year-old adjudicated youth, was told by staff that he didn't have off-campus privileges because he hadn't completed his chores. He challenged the staff, stating,* "You told me you didn't have rules here only expectations. If I am not meeting expectations, why are we not having a conversation about it?"

As youth become more comfortable in the rhythms of CPS, they report finding themselves using it almost as second nature.

> *TJ called every few months following his discharge, excited to let staff know that he was using CPS to deal with conflicts in his life in public school in another city. He hadn't returned to facility based care since leaving the psychiatric residential program.*

The Case of Juvenile Justice

Juvenile justice programs in many ways are like any other milieu setting but, in other ways, provide a unique setting for implementation of CPS. Thus, there are corrections-specific considerations for CPS implementation. Juvenile justice programs have traditionally been organized entirely around operant conditioning as a means to motivate behavior change and, thus, have cultures deeply steeped in rewards and punishments. The philosophy shift to understand challenging (and even illegal) behaviors as a deficit of skill, not

will, will be even harder in juvenile justice settings but, perhaps, even more important. Many professionals in these settings worry that without rewards and punishments, we won't teach youth how to be accountable for their actions. However, even more than the accountability that comes with serving a sentence, or losing setting-specific privileges, CPS holds youth accountable by teaching them how to recognize and build the lagging skills that are behind their own chronic difficulties and by insisting that they help develop durable solutions to problems that arise without engaging in hurtful or illegal behavior.

Juvenile justice programs often target reform through "level" systems that measure compliance to the demands of authority. Youth on a higher level are those who are compliant and, thus, permitted to obtain certain privileges. Therefore, many of the activities that can be used to externally motivate youth (e.g., social time, access to specific items, participation in extracurricular programs) are classified as privileges and saved for youth who are already meeting program expectations. The reasoning for this tends to be driven by a combination of factors, including concerns about safety and security (noncompliant youth may be viewed as a risk to themselves or others if they have access to certain opportunities), basic operant conditioning theory (if participation is viewed as a privilege, then we will not be rewarding the youth for his/her negative behavior), and a lack of resources (limited resources have to be prioritized). However, especially given the fact that many juvenile justice-involved youth have a history of abuse by authority figures, the goal should not be to teach youth to comply with authority but rather how to make informed decisions and use critical thinking skills to help them to become healthy, productive, crime-free citizens. Recidivism rates demonstrate that these youth need to learn to assess situations accurately, including the costs and benefits of various responses, and to make informed decisions accordingly and that they need to be able to use these skills beyond the parameters of their juvenile justice setting. Traditional behavior modification programs that link behavior to levels of privileges in juvenile

justice settings risk the result of institutionalization, a phenomenon in which youth are not able to make decisions on their own, don't know how to communicate in socially normative ways, don't develop ways to care for themselves physically and emotionally, and don't develop skills to handle the removal of that imposed structure.

There are several other reasons why CPS is ideal for use in juvenile justice programs. First, since CPS is not limited to structured group or treatment time, and since it is not heavily manualized, there is no requirement for youth to engage with workbooks, and no forms for them to complete. Therefore, individuals with poor literacy or who may be treatment resistant may be more engaged in collaboratively solving real problems that they are having with an empathic and invested adult who is not judging, punishing, or imposing particular solutions.

Second, in traditional juvenile justice programs with traditional skill-building groups (such as social skills or anger management), fabricated role-plays are used to help reinforce the skill. However, these skills rarely generalize beyond the group room; youth in juvenile justice settings may recite and even role-play the direct skills taught in specific curricula, but cannot apply those skills consistently to real-life situations once they are in common areas or back in the community. In CPS, however, the youth is enlisted in practicing the cognitive skills with another person to collaborate on flexible solutions for real problems they are currently having. This not only solves some of their recurring problems, but it also provides better generalization of new skills to their real-world problems than typical interventions.

Third, incarcerated youth frequently have histories of poor relationships with authority figures, including parents, educators, and police, and in some cases, may have been victimized by people in authority. When juvenile justice programs rely on the use of power and control to manage behavior by placing adults in the position of doling out rewards and punishments, not only do youth fail to develop the skills to maintain positive adult-child relationships that will help them repair

relationships in the community, but they also miss an opportunity for the type of relationship that is the single most important factor in the process of effective change. The frequent imposition of adult will that occurs in traditional juvenile justice settings can trigger these traumatized youth in ways that not only further inhibit their ability to handle the demands being placed on them but also result in an *increase* in challenging behavior rather than the intended reduction. The cumulative effect can result in poor self-esteem and further traumatization, stunting brain development and inhibiting access to neural skills needed to respond in triggering situations, a vicious cycle resulting in both immediate escalation of problems and perpetuating long-term skills deficits.

The discrepancy between theory and reality of traditional correctional programming and interventions has led many juvenile justice programs to seek a more effective way to connect treatment with behavior change, using interventions tailored to each youth's baseline skill set that are trauma-informed, internally reinforced, and generalizable. CPS is an ideal approach for a new way forward. Additionally, since CPS is an approach that can be used in a variety of settings, including homes, schools, and treatment programs, implementation of CPS in juvenile justice programs can provide opportunities for continuity as youth move from incarceration into less restrictive systems and placements.

Specific Considerations for Implementing in Home- and Community-Based Settings

Home- and community-based settings include outpatient and community mental health clinics, foster care services, and more intensive family treatment programs such as in-home diversion programs. The acuity and safety issues are typically not as pronounced for young people who are able to navigate the daily demands of these settings compared to the milieu, so there are fewer disruptions in the physical environment and less persistent stress on staff, making CPS

easier to deliver in some ways. The lower level of immediate dysregulation, however, can lessen the perceived importance of using the CPS approach to address the recurring patterns, and trained staff only have access to the youth a minority of the time. Additionally, the needs and skills of the caretakers, who don't get to leave at the end of their shift, can contribute to the overall acuity in the home, providing a new set of challenges.

Providing CPS Training for Parents

In home- and community-based settings, CPS training for staff follows the same basic structure as in milieu settings (train the leaders and Implementation Team, offer a brief exposure training to all staff, then provide advanced training to as many staff as possible). However, in other ways, training can be very different. CPS parenting groups using a structured curriculum and delivered by someone certified in CPS represent a highly effective and efficient training model. Parents are given the opportunity to learn alongside other parents, providing an empathic and supportive community and reducing feelings of blame and isolation. Foster parents, biological parents, and other caregivers are taught the CPS approach over the course of 8–10 weeks. Each week they are taught a critical concept of CPS, are asked to go home and try certain tasks, and then debrief these activities through the support group model. Each week's information and activities builds upon the last. In-home services can then be deployed strategically following group training to those families requiring more individualized support. In that case, the provider does not need to teach the caregivers the basics of CPS but rather can help troubleshoot, coach, and facilitate Plan B conversations during visits. After learning CPS, some caregivers may even be enthusiastic enough to want to become certified in CPS themselves, affording parent-to-parent training and support, which has unique impact. Parents learning the approach experience a common universality with the parents teaching the approach; empathy comes easier and engagement is solidified.

Another novel training method includes training staff and caregivers together, which reinforces the value of collaborative work. It can be incredibly valuable when a child's parents or foster parents, caseworker, outpatient clinician, and local decision-makers are all sitting at the same table getting the same information about the approach and sharing the same experience. Not only will this provide a more rich discussion and training experience, it also helps build cross-system relationships that are critical in this work and reduces the power differential between youth and families and providers.

Focus on Dosing

Since each dose of Plan B helps to build the neural pathways that lead to brain and behavior change, more doses provide more opportunity for change. Thus, the greatest challenge in community and family treatment settings is the infrequency of the dosing; once weekly sessions don't offer as much opportunity as the milieu for the type of learning that is most likely to change the brain and build neurocognitive skills. For this reason, it is important to engage parents and other caregivers in outpatient and community-based work. In milieu settings, a provider simply needs to be able to do CPS with the individuals for whom she cares. In outpatient and community-based work, the job of the provider is to teach CPS to the caregiver so the caregiver can provide frequent dosing of CPS when the provider is not present.

Open Treatment Settings

Increasingly, services and supports for children and families are being provided in open settings, rather than in an office or an identified treatment facility or clinic. This can include parks, teen centers, malls, and schools. Gathering assessment information and having Plan B conversations can occur anywhere, and for many youth having such conversations in a naturalistic setting may be preferred because it is less likely to cause a stress arousal response than might occur in a more formal setting.

The Case of Child Welfare

There are many benefits of having staff in the child welfare system trained in CPS. Skills learned in CPS training are transferable to many elements of this system. The CPS approach can be utilized in case planning, reunification plans, family decision-making meetings, the development and support of safety or permanency plans, and comprehensive transition plans for young adults who are transitioning from foster care. In addition to child welfare staff, CPS can be taught directly to foster parents and other caregivers. While child welfare systems often have limited budgets and time to deliver training, taking the time to invest in the comprehensive training model will pay dividends to the quality of care and support for the children and families they serve. CPS provides a trauma-sensitive approach that can be used by all caregivers, whether they have professional clinical training or not. It has unique value and utility in creating a common understanding and language across home, foster home, and community settings.

Many public child welfare systems have been moving toward differential response, alternative response, or other models instead of the more traditional model of taking full control of the child and family (oftentimes with the assistance of the legal system). Each of these innovative models builds upon the evidence-supported belief that if the child welfare system can clearly identify the safety issues at hand for the child, and the family can bring together a safe plan for that child, then a legal intervention or removal of the child from the home is not necessary. In many ways these models are consonant with the fundamental interactive approach of CPS using empathy, sharing concerns reciprocally in a given order, and brainstorming solutions. CPS provides an approach through which the parents can actively participate in the decision-making about their child while also learning CPS skills that will be helpful in their parenting of their child and contribute to permanency.

Community Systems

Since the most at-risk youth in the community are frequently moving between programs across the continuum of care, for instance, from outpatient to inpatient to residential care and back to outpatient, it is beneficial to create a collaboration and common language among individuals within that community to improve continuity of care and minimize confusion and frustration for youth, families, and providers. When providers across multiple organizations agree to work under a single approach and collaborate on care, they are engaged in a community of practice. CPS can be a valuable addition, where not already implemented, to the more formal communities of practice under development across the United States and Canada. In fact, CPS operationalizes many of the principles of the evidence-based systems of care approach (Video 4.1).

When implementing CPS in child welfare and community systems, a Collaboration Team can perform the function of the single Implementation Team charged with guiding implementation in a single organization. This team should be comprised of key individuals from each setting involved in the local system. Some CPS collaborations have taken a "top-down" approach by bringing together in the Collaboration Team all the decision-makers of a local system: school superintendents; directors of the child welfare, mental health, and physical health systems; and leaders of local private provider agencies. Other CPS community systems of care have taken a "bottom-up" approach that creates a venue for individuals who are working with the children on a daily basis such as foster parents, teachers, and caseworkers to direct the implementation of the model.

Both approaches work, but a third and likely best option is to take a vertical rather than a horizontal approach to including participating organizations. A vertical approach is enacted by gathering leaders and decision-makers, as well as direct care staff, caregivers, and staff from other systems who will be impacted by implementing the model, such as

mental health, physical health, and education professionals. This is also the opportunity to ensure the voice of a diverse community is involved, including the voice of different racial, ethnic, and cultural groups and including grandparents raising grandchildren, families of LGBTQ youth, or other familial structures represented in the community. Equally important is to ensure that youth and families themselves have a voice at the table. To fully create a sustainable plan, there must be local champions of CPS within the leaders and decision-makers of the community and also within direct care staff, parents, foster parents and caregivers. Thus, the collaboration will benefit from a cross section of committed individuals and systems working to embed the CPS approach into the way the community cares for its children.

This Collaboration Team will get together for shared training and coaching opportunities and to discuss high-need youth who are clients of multiple organizations in the system. Besides creating an intentional and thoughtful community, this also has the benefit of bringing down the cost of training for any one agency. The team can also discuss organizational barriers and share best practices for CPS implementation. When bringing the Collaboration Team together, it is helpful to follow the basic tenets of CPS: gather varying opinions from others; identify concerns, needs, and system limitations; and then, once all thoughts are on the table, together come to a resolution on how to move forward in a way that works for all parties. Repetition of the processes over time can transform the community mindset, with the CPS language and approach becoming "the way we do business."

Important in the implementation of CPS in a local child welfare system or community is that the entire system comes to utilize CPS to meet the needs of the child's well-being, safety, and permanency, not simply parts of it. In taking on this challenge, the grounding philosophy of CPS is critical to bear in mind, all along the continuum of implementation:

- Children do well if they can.
- Caseworkers do well if they can.
- Clinicians, counselors, and direct care staff do well if they can.

- Parents, foster parents, and other caregivers do well if they can.
- Systems do well if they can, too!

Summary

CPS is broadly applicable across settings. It may change shape somewhat between settings, looking somewhat different in an inpatient unit than an outpatient clinic, or a correctional milieu as opposed to a therapeutic foster home, but the essential elements of empathy and collaboration persist regardless of location or domain. Implementing CPS fully in an agency or community does not happen overnight. It reflects a significant practice model change that requires repetition, reinforcement, and affirmation. With sufficient attention to the general and specific implementation factors discussed above, successful implementation can be achieved, and the benefits of doing so are significant for all involved.

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Chapter 5
Implementing CPS in Educational Settings

Erica A. Stetson and Amy E. Plog

Educational settings, including public and private schools for typical and special education, and therapeutic school settings are well-suited to implement Collaborative Problem Solving (CPS) because educators are experienced in assessing students' cognitive skills and intervening to support the development of new skills. Moreover, published studies in school settings suggest that CPS reduces disruptive behavior as well as teacher stress [28, 29], two areas of great concern in education. Thus, successful implementation in schools promises great impact on students and their adult caregivers.

While educators are typically adept at assessing and addressing lagging cognitive skills related to academics, they do not always take the same approach to challenging

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behaviors. Often, schools are ingrained with exclusionary discipline practices that reflect outdated responses to students who struggle with behavior [10, 25]. It is clear that punitive practices, such as suspension and expulsion, do not achieve their presumed purpose of preventing further disciplinary concerns [10, 18, 21, 23]. In fact, for decades research has shown that suspensions and other forms of exclusionary discipline are associated with increased risk for academic failure, school dropout, and involvement with the juvenile justice system [3, 10, 21, 23, 27]. In addition, Perry and Morris [25] found that the negative impact on academic performance extended to all students in a school with high rates of suspensions, not just the students who were suspended. Further, minority students, in particular African-American students, have been found to be more likely to be disciplined through suspension or expulsion [14, 18, 21, 23, 32] regardless of their behavior [10]; the differential use of exclusionary punishment has been found to be a significant contributing factor to racial disparities in achievement [21]. Obviously, suspending or expelling students, i.e., sending them away from school, does not provide opportunities to teach new skills, which would be the best way to prevent future disciplinary action [9]. In contrast, the use of CPS provides an opportunity for reducing punitive disciplinary practices by intervening in a positive way that builds relationships and gives students the chance to develop skills needed to comply with behavioral expectations in school [1].

Integrating CPS with Multi-Tiered Systems of Support (MTSS)

To appreciate the potential benefit of CPS in schools, it is important to understand the structure of intervention typically developed in schools. School-based interventions for students are typically designed for three levels that map

onto a public health prevention model: primary, secondary, and tertiary levels. At the primary level, universal interventions are provided for all students; at the secondary level, interventions are targeted for "at-risk" students; and the tertiary level is for students exhibiting the most challenging and perhaps dangerous behavior. The tertiary level includes self-contained programs for children and youth identified as having an emotional disability.

Within schools, this three-tiered model has been more recently conceptualized as Multi-Tiered Systems of Support (MTSS). Schools that use MTSS provide a layered continuum of evidence-based practices involving family, school, and community resources [4, 15]. The goal is to provide a coherent continuum of support that responds to academic and mental health needs. It provides support at each level of intervention and emphasizes evidence-based preventive services within a collaborative, cross-disciplinary approach. MTSS is meant to be a comprehensive framework that brings together programs and initiatives into a coherent whole. It targets service delivery of academic and emotional support for individual students but also focuses on enhancing school climate. One approach that fits within an MTSS framework is Response to Intervention (RTI; [22]). RTI promotes a system that integrates general, compensatory, gifted, and special education, by providing high-quality instruction and intervention that is matched to the student's needs. While it has been most closely associated with academic intervention, it can also be used for behavioral needs. RTI emphasizes the implementation of research-based practices and frequent gathering of data and monitoring of progress to assess if the current level of intervention is appropriate.

The CPS approach fits well with RTI because students are provided with intervention at a level of intensity that matches their need. In RTI, interventions are monitored closely, by frequently assessing the child's progress, and are modified according to the progress the child makes.

Similarly in CPS, an individualized approach is taken, and plans are modified based on outcome. However, in CPS, collaboration has a greater focus, while with RTI, interventions are provided primarily based on adult preference and evidence of their efficacy through ongoing progress monitoring.

Another approach that fits within the MTSS framework is Positive Behavioral Interventions and Supports (PBIS; [30]). PBIS assists schools in adopting and implementing evidence-based behavioral supports and interventions. It emphasizes teaching adaptive behaviors and recognizing students when they demonstrate desired behavior. CPS can easily be implemented within a PBIS school system. PBIS has a greater emphasis on school-wide intervention, and CPS is more focused on individual children. The PBIS approach sets the stage for a positive school climate, and CPS identifies why some students are not responding to that environment and provides more intensive intervention to build the skills they need.

CPS works well within both the RTI and PBIS frameworks. CPS and PBIS both emphasize being proactive and positive. Additionally, CPS works better to address challenging behavior once clear and realistic expectations have been made, but are not being met, which is a focus of both RTI and PBIS. Next we will discuss with great specificity how CPS is used as an intervention at each level.

CPS at the Tertiary (Intensive) Level

CPS is most often used at the tertiary level, with students demonstrating high levels of challenging behaviors. Points and levels systems have historically been used to manage children at this level of intervention. In traditional schools, children are often rewarded for positive behaviors and receive negative consequences for challenging behavior. Desired behaviors earn children points that can

lead to rewards or movement to a higher "level," which gives the child more privileges. Challenging behavior leads to losing points or dropping a level, which results in a loss of privileges and rewards. However, points and levels systems are becoming less valued as concerns about their use emerge [20]. Point systems typically treat children as if they are all the same, but clearly individual children have differing needs. Children with challenging behaviors have unique profiles of developmental delays and strengths, various background experiences that impact their current functioning, and individual ways of learning [31]. Point systems focus on managing behaviors through external controls without building capacity for internal control. Finally, when students are frustrated by their point system, it can undermine the student-teacher relationship [20]. CPS offers a more compassionate approach to students at the tertiary level, and it reflects more recent research findings about the underlying causes of challenging behavior.

While children with challenging behaviors may demonstrate similar symptoms, each child is unique in his or her strengths and needs, and so it is important to precisely identify the lagging skills of each child. The Collaborative Problem Solving-Assessment and Planning Tool (CPS-APT) allows educators to be precise in discerning the skills that they want to teach, and the Likert scale version provides an easy method of progress monitoring. Every child at the tertiary level should have a CPS-APT form completed, preferably by the team as a group, with input and participation of parents.

While it is usually relatively easy to come up with a list of challenging behaviors for students at the tertiary level, it is important for the educational team to prioritize what will be addressed first and if it will be addressed with Plan A, B, or C. Very little should be addressed with Plan A, but some things may best be let go, for now, in an effort to stabilize the student (Plan C). Once the list of concerns to be addressed

with Plan B is developed, it needs to be prioritized. Two guiding principles here are determining what concern is currently the most destabilizing and what concerns would be the easiest to address. Next, the team needs to decide when is the best time for Plan B to happen and who should be involved. Of course, the adults involved need to be part of the process, but the team should also consider who has the best relationship with the student. Whom does the child trust? To whom will he or she be most likely to open up?

Schools are busy places and teachers have a variety of demands to meet. It is important to set aside team discussion time to make sure Plan B conversations are happening and to evaluate how they are going. Think:Kids provides several helpful tools to ensure that progress is being made. The Plan B Tracking Sheet documents *which educator* is having the Plan B about *what concern* and what was the *outcome* of the conversation. The School Progress Monitoring Tool creates summary scores and graphs to track student progress. This tool can replace point tracking sheets utilized in traditional point systems.

Typically, students at the tertiary level of intervention will have an Individual Education Plan (IEP), and it will often include a Behavior Intervention Plan (BIP) or behavior plan. Behavior plans can be written from a CPS perspective. These will be different from traditional behavior plans, although they can follow a similar format. Consider the following two behavior plans (Exhibit A and B), written for the same child. The first is written from the traditional philosophy of "Children do well if they want to," and the second is written from the CPS philosophy of "Children do well if they can."

Exhibit A
Behavior Intervention Plan (BIP): *Traditional*

Name of Student: Manuel R.

SOURCES OF INFORMATION
List sources of information used in FBA, both formal and informal, to develop this plan.
Daily notes and data collection on IEP goals
Formal assessment using the BASC-III, teacher rating scales
Parent reports

STRENGTH-BASED PROFILE
Identify skills and interests, positive relationships, pro-social behaviors, family and community supports, and other protective factors.
Manuel knows the rules and routines of his class.
His mother maintains good communication with staff.
Manuel enjoys physical activities.

FUNCTIONAL BEHAVIOR ASSESSMENT (FBA) SUMMARY STATEMENT
Describe specific problem behavior and summary/ hypothesis statement from FBA.
Manuel sometimes stops talking. He may refuse to move. He will look down with a scowl on his face.
Manuel does this to avoid participating in things he is unsure about or does not want to try.

BIP STRATEGIES/OUTCOMES WORKSHEET
Based on hypothesis, in the table below, identify the strategy, what will be done, and when and where the strategy will occur.

Setting event strategies (reduce impact of setting events)	Manuel will be provided with frequent reminders of the rules and routines of the classroom. He will be reminded that the expectation is that he responds to adults when they talk to him and that he participates in all activities
Antecedent strategies (decrease likelihood that behavior will occur)	When Manuel refuses to respond to an adult, he will be reminded that he loses free time when he does not participate in school activities
Behavior teaching strategies [alternative behaviors] (increase the likelihood that the appropriate replacement behavior will occur)	Manuel will participate in Second Step lessons two times a week. These lessons will cover feelings identification, empathy development, managing emotions, and peer skills. He will also participate in weekly groups using the Incredible Flexible You curriculum, which teaches how to be a positive member of a group, how to consider what another person may be thinking and feeling, and how to listen with one's whole body
Reinforcement strategies [consequences] (when student demonstrates the desired behavior)	When Manuel refuses to speak, the time spent not responding to adults will be recorded. He will lose this amount of time from his next recess and be asked to complete the task at that time. When Manuel has a good day, participating in all class activities, a star will be sent home, so that his mother knows he had a good day

EVALUATION
Indicate how the plan will be measured and by whom. Identify the desired performance level for either increasing the occurrence of the identified alternative behavior(s) or decreasing the occurrence of the behavior of greatest concern (criterion for success).

Continuous Progress Monitoring Method:
Daily notes home

Person Responsible: Classroom teacher

The desired performance level is:
Increasing the occurrence of the identified alternative behaviors: expressing his feelings in words; participating in class activities
Decreasing the occurrence of the behavior of greatest concern: shutting down

Criterion for Success:
When Manuel has one or less periods of shutting down per month; when he participates independently in class activities

Exhibit B
Behavior Intervention Plan (BIP): *CPS*

Name of Student: Manuel R.

SOURCES OF INFORMATION
List sources of information used in FBA, both formal and informal, to develop this plan.
Daily notes and data collection on IEP goals
Formal assessment using the BASC-III, teacher rating scales
Parent reports

STRENGTH-BASED PROFILE
Identify skills and interests, positive relationships, prosocial behaviors, family and community supports, and other protective factors.
Manuel knows the rules and routines of class and wants to do well.
His mother maintains good communication with school staff. She is concerned about Manuel's progress.
Manuel wants to make positive relationships with others, both teachers and peers.
He responds well to 1:1 intervention with an adult.
He is making steady academic gains.
Manuel has good social skills when regulated. He engages well in physical activities with peers.

FUNCTIONAL BEHAVIOR ASSESSMENT (FBA) SUMMARY STATEMENT
Describe specific problem behavior and summary/hypothesis statement from FBA.
When Manuel is frustrated, he has difficulty regulating his emotions and then has trouble communicating effectively. He sometimes stops talking. He may refuse to move. He may look down with a scowl on his face.

Manuel has language skill deficits, so when he is under stress, it is hard for him to express his thoughts and feelings.
Further, Manuel may become overwhelmed and have a hard time managing emotions. Due to his history of early trauma, Manuel does not easily trust adults or expect them to be able to meet his needs.

BIP STRATEGIES/OUTCOMES WORKSHEET
Based on hypothesis, in the table below, identify the strategy, what will be done, and when and where the strategy will occur.

Setting event strategies (reduce impact of setting events)	Manuel will participate in a structured, predictable classroom. When changes in the regular routine are coming up, he will be given a warning, both verbally and visually. Manuel will have opportunities for movement interspersed throughout his day, to allow him to maintain a comfortable arousal level
Antecedent strategies (decrease likelihood that behavior will occur)	Each day, Manuel will be given the opportunity to identify his feeling state, with a visual cue. When Manuel is becoming overstimulated, stimulation will be reduced. He will have the opportunity to go to a quiet place and engage in calming activities. Manuel will be provided with frequent reminders when changes in routines are approaching. He will be given frequent reminders of behavioral expectations. Close home-school communication will be maintained

Behavior teaching strategies [alternative behaviors] (increase the likelihood that the appropriate replacement behavior will occur)	Manuel will participate in Second Step lessons two times a week. These lessons will cover feelings identification, empathy development, managing emotions, and peer skills. He will also participate in weekly groups using the Incredible Flexible You curriculum, which teaches how to be a positive member of a group, how to consider what another person may be thinking and feeling, and how to listen with your whole body. Further, Manuel will explore ways to self-regulate, using somatosensory strategies. Through Collaborative Problem Solving (CPS) Plan B conversations, Manuel will learn to anticipate, plan for, and handle challenging situations in a positive way, with adult support
Reinforcement strategies [consequences] (when student demonstrates the desired behavior)	Manuel wants to do well. When he can fully participate in all class activities, that will be rewarding in and of itself

EVALUATION

Indicate how the plan will be measured and by whom. Identify the desired performance level for either increasing the occurrence of the identified alternative behavior(s) or decreasing the occurrence of the behavior of greatest concern (criterion for success).

Continuous Progress Monitoring Method:
Daily notes home

Person Responsible: Classroom teacher

The desired performance level is:
Increasing the occurrence of the identified alternative behaviors: expressing his feelings in words; participating in class activities
Decreasing the occurrence of the behavior of greatest concern: shutting down

Criterion for Success:
When Manuel has one or less periods of shutting down per month; when he participates independently in class activities

Both behavior intervention plans begin with the same sources of evidence; they end with the same criterion of success. However, the approach they take to intervention is very different. With the CPS-oriented behavior plan, the resulting approach will be to collaborate with the child, while with the more traditional plan, the resulting approach will be for the adults to attempt to manipulate the environment, with the goal of increasing Manuel's motivation to do well. The behavior plan that utilizes the CPS philosophy will provide greater opportunities for the student to build a positive relationship with the teacher. When the teacher approaches the student with an attitude that "students do well if they can," she/he is more likely to be patient with the student and to focus on skill development. The behavior plan utilizing CPS also provides more individualized opportunities for skill development, something that is not implemented with the first plan. So what may appear to be subtle differences in the writing of the BIP can actually lead to dramatic improvements in the interventions for students.

CPS at the Secondary (Targeted) Level

The secondary level of intervention focuses on students at-risk for social-emotional concerns. The goal is to reduce current symptoms and to prevent concerns from increasing. CPS is extremely valuable with this population of students. When schools provide strong social-emotional instruction, CPS can be used to identify lagging skills present in students needing extra support, and Plan B conversations can help to build those lagging skills. The Collaborative Problem Solving-Assessment and Planning Tool (CPS-APT) helps to identify lagging skills, and Plan B conversations promote the development of these lagging skills. Take, for example, this Plan B conversation between a student and his special education teacher, about his writing:

Teacher: I notice that during our creative writing time, you have been drawing pictures.
Student: Yea, I am designing a new roller coaster.
Teacher: Really? What kind of roller coaster?
Student: It is really going to be a roller coaster video game. That is what I am going to do when I grow up—design video games.
Teacher: You really like those video games, huh?
Student: Yea, that is my main hobby and it is going to be my career.
Teacher: Well, I guess I am glad that you have dreams of your future career, but I am also interested in seeing your ideas in writing.
Student: I don't really like to write. I am very good at drawing.
Teacher: Yes, I have seen your drawing. There is so much detail! I love it. I can tell you have practiced a lot.
Student: Yes, I spend a lot of time drawing.
Teacher: You said you don't really like to write, what is that about?
Student: I write too slow.
Teacher: You write slowly? How is that a problem?

Student: Well, I have ideas, and I start to write, and it takes me so long, that I forget what I am doing.

Teacher: That sounds very frustrating!

Student: (Finally looks up at teacher) Yes! It really is. So I would rather draw.

Teacher: OK, let me see if I have this straight, you like to draw, and during writing time, you draw a roller coaster, because you want to make it into a video game. You dislike writing, because you write slowly, and then you forget your ideas. Is that everything?

Student: I also think some of your writing prompts are kind of stupid, and I can't think of anything to say about them.

Teacher: OK, so it sounds like there are a lot of things you dislike about writing time—you write too slowly, and forget your ideas, you can't always come up with something related to the prompt, right?

Student: Yes, that is the whole story, so now you know.

Teacher: Yes, thanks for letting me know all these things. I wasn't really aware of all of that; I just knew that I wasn't getting any creative writing samples from you. So here is my concern—to get better at something, you have to practice, and I want you to get better at writing, so I want you to practice.

Student: I know, but I like to draw and I am going to design video games when I grow up.

Teacher: You are great at drawing and you practice that a lot. The thing is, I am pretty sure that you will also need to do some writing as a video game designer. You will need to use writing to communicate.

Student: I know, but I kind of hate it, and I get frustrated when I forget my ideas!!

Teacher: I understand, and it is frustrating to write slower than you think, and sometimes the

prompts are not interesting to you. And my concern is that you'll need to learn to be a good writer to communicate, even as a video game designer. Do you have any ideas about what we can do so that you're not frustrated by writing more slowly than you think and you don't have to write about things that aren't interesting, and you learn to write better?

Student: Well, if I could write about my roller coaster, I would be more interested in that!

Teacher: OK, I think at this point, I just want to see some writing. I am ok with you writing about the roller coaster, if you don't like my prompt. For now. Then as you start writing more, I may ask you to write about other things.

Student: OK.

Teacher: But you are also frustrated with forgetting your ideas because of writing slowly. And just writing about roller coasters doesn't address that concern of yours. I have an idea that might help with that. Are you interested?

Student: Yea.

Teacher: OK, do you remember when we worked on an outline for your science essay?

Student: Yea.

Teacher: Well, I can help you write an outline about a creative story about your roller coaster. That way, the outline will allow you to write your ideas down quickly and could refer back to it if you forget. OK?

Student: OK, I guess I would be willing to try that.

Teacher: Great! So here is the plan—you can write about your roller coaster if you don't like my prompt. And I will help you create an outline, so you won't forget your great ideas.

Student: I like it!

Teacher: I am so glad you worked this out with me. I appreciate you giving this a try, and if it doesn't work, we will talk again and come up with a new plan.

Student: Ok.

This teacher could have approached this student by offering him a reward for writing and a consequence for not writing. However, in doing that, she would not have gained the insight that she did about what he was thinking and feeling. Further, the reward-consequence approach would not be beneficial to their relationship; in fact, if it frustrated the student, it might undermine their relationship and/or lead the student to engage in challenging behaviors such as talking back, refusal, or plagiarism.

When the student engaged in this Plan B conversation, he practiced many important skills. He considered his teacher's concern about practicing writing. This involves social perspective taking, which is a lagging skill for this student. He had to consider his own desire to draw alongside his teacher's concern about writing. So he practiced the important executive function of holding two ideas in his mind simultaneously. The teacher also invites the student to try to solve the problem. She suggests that he writes about his area of interest. While this might not be the final goal for the teacher, at this point, it appears that it will get the student started, at least trying some writing. The student practiced putting his feelings into words, when he expressed his frustration over forgetting what he was going to write, and he experienced his teacher's empathy for this feeling and her sincere effort to support him. This will almost certainly facilitate the development of a positive teacher-student relationship, so critical to student engagement and success [5].

When educators acknowledge the more complex nature of challenging behavior, they look deeper, to understand the child's perspective and to help that child build lagging skills. Teachers understand that students with learning disabilities will need extra support to make academic gains. They understand that these students need a more intensive level of intervention with more practice and support. Only the most misguided teacher would "blame" a child for his/her learning disability. CPS explains the challenging behavior as the by-product of a type of learning disability, one related to flexibility, problem-solving, and frustration tolerance. When explained in this way, most teachers gain greater insight into the needs of students with challenging behaviors.

CPS at the Primary (Universal) Level

At the primary level of intervention, schools focus on creating school-wide and classroom practices that are available to all students and prevent future problems. While two of the five goals of CPS explained earlier in this book, solving chronic problems and decreasing challenging behaviors, are more appropriate goals for those students for whom CPS is targeted, the other goals, including building helping relationships with adults, building neurocognitive skills, and solving problems that arise, are appropriate goals for all students.

At the universal level, the CPS approach encourages teachers and administrators to shift from a belief that "Children do well if they want to" to the philosophy that "Children do well if they can." Such a shift in thinking has many positive benefits for all students in the school. First, it increases the likelihood that adults will feel more empathy for their students and try harder to understand underlying causes of negative behavior. If teachers and administrators shift their explanation of student misbehavior, from seeing it as intentional to understanding it as a skill deficit, they will feel more empowered to do something to support the child and take the behavior less personally, thus reducing their level of stress [28]. If the adults simply believe that the misbehaving child is not motivated to do well, their repertoire of response is limited to motivational practices. An expanded repertoire both allows for improved relationships and increases the likelihood adults will engage in problem-solving conversations and students will be provided opportunities to build skills.

It should be noted that in addition to building neurocognitive skills, another important universal focus for many schools is teaching social-emotional skills. Five basic social-emotional skills have been identified by the Collaborative for Academic, Social, and Emotional Learning (CASEL): self-awareness, self-management, social awareness, relationship management, and responsible decision making (e.g., [12]). This conceptualization overlaps with the skills identified by CPS, though each model also contains unique skills. Because both models are based on the belief that students can be taught

skills that are important for success in school and in life, programs and practices that teach social-emotional skills can work in support of CPS. CASEL has identified many school-wide curricula that are helpful in teaching social-emotional skills and provides a guide to exemplary social-emotional learning (SEL) curricula for both preschool/elementary and middle/high school [6, 7]. CASEL evaluates programs on evidence of effectiveness, dissemination, contexts, explicit skills instruction, and opportunities to practice social-emotional skills. Because social-emotional skills prepare students for the future by helping them become better group members, better employees, and better able to manage their emotions and relationships [8, 16, 24], instruction in these skills will bolster any universal implementation of CPS.

A final aspect of CPS that can work in support of all students and that is also consistent with the MTSS approach is parent education and support. Think:Kids has created a curriculum to provide groups for parents who want to learn the CPS approach. Parents can participate in group training for 8 weeks, for an hour and a half, to learn the CPS approach. The parent group training teaches parents the CPS philosophy and how to discern lagging cognitive skills. Parents learn to engage in Plan B conversations with their child through didactic instruction, video instruction, role plays, and practicing at home and returning for coaching. Similar to findings with teachers implementing CPS, when parents utilize CPS, they also report a reduction in stress and disruptive behavior [13]. Schools can offer evening classes on CPS for parents, so that students experience a consistent approach to their needs. Parenting instruction can be provided as a universal intervention or can be targeted to particular families based on identified needs or both.

Implementation Concerns Specific to Educational Settings

CPS strategies can be implemented by individual teachers within classrooms or by mental health professionals with individual students, but for school-wide implementation,

many educational systems will need a cultural shift. As noted earlier, many systems are entrenched in old-fashioned codes of discipline that are intended to make sure students "learn responsibility." While the idea that punishment teaches responsibility may be misguided, it is a very common belief. It is important to help teachers and administrators understand that as students engage in plans to change their behavior, they truly are taking responsibility for their behavior in an authentic way. Administrators' understanding is a crucial step as systems change in school settings requires administrator support [26]. Specifically for CPS, their support will be necessary for both conceptual changes and practical changes in school-wide discipline structures and paperwork, as well as for providing resources (financial and time) necessary to provide training for staff.

Educators have many demands on their time and may view the implementation of CPS as "one more thing" they just do not have time to take on. This is yet another reason it is important to have the support of school leaders to set the expectation that the CPS philosophy will be followed. In addition, flexibility will enhance the use of CPS. For example, another staff member, such as a school mental health provider, may need to step in and run a classroom while a teacher has a Plan B conversation with a student.

Cultural shift in schools has been said to take around 3–5 years [19], so persistence is key in implementation. As educators watch the success of CPS take hold, they will be more willing to let go of old ways of managing behavior and embrace new ways of collaborating with students. Generally, ongoing data collection can be an important part of sustaining systemic changes in schools [26]. For CPS, this could include tracking existing school data such as office behavior referrals or gathering data on factors such as teacher stress that have been found to change following implementation of CPS [28, 29].

The implementation of CPS involves some complex skills; for most educators, the struggle will not be in understanding the model, but in implementing it. Coaching is

known to be critical to applying new skills in classrooms [17]. Therefore, beyond initial training, it is recommended that implementation of CPS includes ongoing coaching. It is important that this coaching occurs in an accepting and supportive atmosphere, where staff are comfortable challenging themselves, and do not feel they have to be perfect, because mistakes are inevitable when people begin to learn the process [11] (Video 5.1).

One of the beautiful things about CPS is that CPS itself can be used to promote its implementation. That is, should implementation be met with resistance, a Plan B conversation with a staff member can help you understand their point of view, show empathy, and find common goals. CPS teaches us to listen carefully and to show compassion. When asked what a teacher coach should do, Elena Aguilar [2], the author of *The Art of Coaching: Effective Strategies for School Transformation*, responded, "Love unconditionally. Compassion is our most effective tool, or weapon, to transform schools. We must love our students. We must love teachers—even the cranky, difficult ones—and we must love ourselves."

Conclusion

Educators are skilled at assessing underlying academic deficits that create learning concerns. CPS provides educators with the tools to assess underlying cognitive deficits that create challenging behaviors. Through CPS, educators work with their students, collaboratively, to solve problems in a durable way. It is a much more gratifying way to tackle behavioral concerns than simply trying to motivate the problem away. CPS gives educators a positive way to approach *all* students and to develop positive relationships with students, which we know is central to learning. Through CPS, adults and children learn and grow together, solve problems collaboratively, and gain skills that will have a lifelong positive impact.

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Chapter 6
CPS in a Large Multiservice Organization: A Case Study

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In 1986, two youth residential campuses in Memphis, Tennessee – Dogwood Village and Memphis Boys Town – merged. This new organization, named Youth Villages, helped around 80 kids per year. Since that time, Youth Villages has grown to offer a complete continuum of programs and services and to become a nationally recognized leader in the field of children's mental health. In 2016, Youth Villages served 25,386 children, families, and young adults in 14 states. Currently, the organization employs approximately 3000 individuals at 73 locations in 59 cities across the nation.

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How did Youth Villages grow from 2 to 73 locations in 30 years? The organization owes its success to evidence-informed programming. Simply put, we use exhaustive data collection and research methods to find what actually works, and then we implement what works across programs. In fact, it was because of data in one of our small, CPS-trained programs that we decided that using Collaborative Problem Solving is the best way to help the children, families, and young adults that we serve.

Youth Villages began implementing Collaborative Problem Solving in the Fall of 2014, with the goal of training all program staff by the Fall of 2018. It was a huge undertaking, but the results have been worth it. Along the way, we have learned how to use CPS in different services and with different populations; how to achieve consistency across multiple settings; and how using the model itself can help support strong and sustainable implementation. As of this writing, we use CPS in the following programs:

- Intercept – An intensive in-home service for youth and their families providing at least 3 hours of contact a week and 24/7 crisis response.
- YVLifeSet – An intensive community-based service for young adults transitioning out of the foster care system providing weekly contact, life skills training and support, and 24/7 crisis response.
- Residential and group homes – Psychiatric residential treatment for youth in Tennessee and Georgia, with both individual and family therapy components.
- Foster care – Supported therapeutic homes for youth in Tennessee and Mississippi with weekly therapeutic contact for the youth and support for the foster parents.
- We also have relationships to charter schools in Memphis that include training and coaching their staff in CPS.

In this chapter, we will outline the key strategies that Youth Villages used when implementing CPS in 73 locations across 14 states. There are some implementation strategies that are unique because Youth Villages is a large organiza-

tion. However, others may be helpful for your implementation, whether large or small (Video 6.1).

Key Strategy #1: Build Internal Resources and Staffing to Train and Sustain CPS

Implementing Collaborative Problem Solving and providing ongoing support and training across this large organization required a lot of resources, time, and coordination. We built this capacity over time, taking slow and careful steps to get what we need in place for sustainability of the model in our programs. Initially, there was a core group of clinical leaders that had previous experience and training in CPS. With their encouragement, Youth Villages' Chief Clinical Officer (CCO) attended multiple CPS overviews to assess whether CPS would be a useful foundation for our work at Youth Villages. Needless to say, our CCO was sold, and then with his support, our CEO got on board to support a strategic implementation plan for all of our services. The first priority for us was training the rest of our upper management and clinical leadership teams in the CPS approach so that our implementation was supported at the highest levels across the organization. We found that having leadership educated and excited about the model was a key component of successful implementation. Without top-down support, implementation efforts would have failed to gain momentum, and staff investment and enthusiasm would not have been cultivated, resulting in the "flash in the pan" or "flavor of the month" phenomenon that we so often see in our field. Our Chief Clinical Officer then attended a Tier 1 CPS training, along with our Chief Operating Officer, our clinical leadership team, and some key program Directors. This group was excited about the model and began talking about how we could embrace it in our programs. The energy this generated was an important part of moving the implementation forward. Our Chief Clinical Officer also designated one of his direct reports, a Clinical Services Program Manager, to

champion our adoption of CPS from the beginning by dedicating half of her time to planning and directing the organization's implementation of Collaborative Problem Solving into all of our services. Having this level and amount of resource dedicated to the implementation helped keep things on track. She has managed budget, staffing, and resources for the implementation and has liaised with Directors as they planned the best ways to incorporate the CPS philosophy and approach into their programs across the country. After our leadership attended CPS Overviews and Tier 1 training, they understood the power of the CPS approach and what it could bring to our work. They actively promoted it to their teams and began using and modeling it in the work environment.

We began planning for sustainability right away, knowing that it would be critical to have CPS-Certified staff so we could eventually train and coach our teams internally. Internal training would prove vital for the financial viability of our implementation in the long run. Since we had started our implementation in Oregon, where there was already much state-wide interest and support for the CPS approach, as well as community resources to provide initial training and coaching for our staff, we chose two of our Clinical Consultants for Oregon to pursue Certification and started them on this path as quickly as possible. In the meantime, while they built their CPS coaching and training skills, we continued to use Think:Kids training and coaching resources to expand our implementation efforts during the next year to our programs across Massachusetts and in Memphis, Tennessee.

By the middle of our 2nd year of implementation, those two staff members were CPS-Certified Trainers and were ready to begin handling training and coaching inside the organization. They were hired into full-time CPS positions, which we called Clinical Training Consultants. Over the next 2 years, they provided all the CPS overviews (0.5–1-day trainings) and coaching to our programs that implemented CPS, and most of the 2.5-day Tier 1 trainings, traveling almost every other week to our various locations to do these train-

ings. This consistency in training and messaging about CPS across multiple states/programs was important as we rolled this out throughout our large organization. Having internal trainers and coaches also allowed us to customize the training to our Youth Villages services and staff. We added examples and activities specifically relevant to our programs and a section at the end of Tier 1 where we discussed how to incorporate the CPS approach and language into our specific documentation and treatment protocols.

Meanwhile, we scheduled two Tier 2 CPS trainings per year for our staff, to be delivered by Think:Kids trainers. The leadership in each state determines who will attend Tier 2, with priority for clinical leadership, staff supervisors, and staff who are particularly excited about the model. We also began to identify additional staff who were in clinical leadership and/or who were excited about CPS to enter the Certification Program. Between 2015 and 2017, we had 65 of our staff become CPS-Certified and then selected a few of these staff to continue on to become CPS-Certified Trainers. By summer 2017 we had 2 more Certified Trainers, 38 Certified Practitioners, and 25 more staff actively pursuing Certification. We have been able to hire three more staff onto the Clinical Training Consultant team and have completed implementation in most of our states/programs across Youth Villages. We can provide all of our Tier 1 training and ongoing coaching to our programs with these resources and have a growing number of people who can provide CPS coaching to staff in their own state, rather than relying on a few people to coach many locations through video conferencing. Our ultimate goal for sustainability is to ensure that each state/program has one or two CPS-Certified Trainers, depending on size. Large states and programs will have enough coaches and trainers to sustain the model independently, and small states and programs will have additional support from the Clinical Training Consultant team to coach and train CPS as needed.

CPS coaches/trainers are either full-time positions or part-time positions with additional responsibilities that are compatible with that role. Coaching/training responsibilities are

allocated appropriately and are not simply added onto already full-time jobs. This ensures that the coaches have sufficient time and energy to prioritize that task.

Key Strategy #2: Front Load CPS Training in Each New Region

Initial implementation in a new state or program involves large-scale CPS overviews (0.5 day), Tier 1 training (2.5 days), and coaching. As new states plan to implement CPS, the leadership (both managerial and clinical) attends a CPS overview, attends Tier 1, and begins coaching before direct care staff are trained. This approach was initiated in direct response to feedback after early implementation efforts in which we trained leaders alongside direct care staff, and leaders reported that they did not feel adequately prepared to support their staff's learning. Staged training fosters a sense of competency among clinical and managerial leaders as they support their staff through implementation. It also facilitates quicker independence for states, in terms of the presence of state-specific trainers and coaches through the CPS Certification process, which ultimately cuts down on costs.

Fortunately, since Youth Villages is such a large system, we had the needed training and coaching resources available elsewhere within the organization long before implementation in a particular location. In North Carolina, for example, one Clinical Consultant attended Tier 1 CPS training a full year before we planned to roll out CPS in her state. During that year, she was able to use CPS with clients in her private practice, receive coaching from our Clinical Training Consultants, attend Tier 2 CPS training, and complete the Certification Program with Think:Kids just ahead of the North Carolina state-wide implementation. Because of this, she could provide significant support in planning an implementation that would work best for the North Carolina programs, and she could take on the coaching for her teams after their Tier 1 CPS training. Her influence also resulted in an

increase in the comfort and enthusiasm with which the North Carolina staff have embraced CPS. This staff member is now in the Certified Trainer program with Think:Kids and will soon be certified to conduct Tier 1 CPS trainings for other Youth Villages staff in her state.

The importance of quickly identifying and nurturing future CPS-Certified staff, Trainers, and coaches cannot be overstated. As our implementation has progressed, we have been able to do this more proactively. This "front-loading" of CPS training has been instrumental in successful implementation by creating more expertise and buy-in from leaders in each program and region.

When we attain this early buy-in from the leaders, the success of CPS implementation is supported in many important ways. It is at this level of leadership that the following is facilitated:

- When new staff members need overview and Tier 1 trainings, the path for their workload is adjusted to support attendance.
- Staff members who excel with CPS are encouraged to apply for the Certification Program.
- One or two Certified staff are encouraged to become trainers for the program.
- Staff roles and budgets are adjusted to allow for a sufficient number of coaches and trainers to support CPS in the program.
- Staff members are encouraged to communicate with external customers about the role of CPS in programming.
- Leaders and managers are aware of the need for materials to support implementation, and those materials are requested and/or ordered from the corporate PR department.
- Meeting agendas and other formal structures are adjusted to incorporate CPS language and philosophy.
- Managers and supervisors are encouraged and supported to shift the way they interact with staff related to their professional development (using a Plan B rather than a Plan A approach).

Key Strategy #3: Address the Challenge of Staff Turnover with Ongoing Training

In a large system, new employees are hired continuously. At Youth Villages, in a calendar year, there are approximately 115 new hire orientations scheduled for the 1500 new employees hired across the organization. In order to maintain the consistency of services delivered, whether those services are in a residential cottage, an office, or a home, every new employee is expected to receive an overview of Collaborative Problem Solving as soon after hire as possible. It is a challenge to do this and manage training resources effectively. One option for providing new hires with an overview of CPS is to include it in their weeklong new hire orientation. A disadvantage of this, however, is that with all of the topics that various states, accrediting entities, and funders require that we include in our new hire orientations, the CPS information can get a bit lost. New employees tend to experience a saturation of information as the orientation week progresses. For many individuals, the shift to the "skill not will" philosophy of CPS is monumental, and the emotional energy required to attend to and engage in the presentation of such a new concept is best done in the context of a well-rested brain.

Thus, another option is to deliver the CPS overview training soon after hire, but not during orientation. Another format we use is to offer the overview via a live webinar. Certified Trainers provide a live CPS Overview webinar once a month, and staff members from any state can attend. We seek to make these live webinars as engaging and interactive as possible. In states in which the CPS Overview is not offered during the weeklong orientation, staff attend the next available overview webinar after they have completed orientation training.

Staff receive Tier 1 training as soon as possible after their CPS Overview – usually within 1–3 months of hire. As the pool of CPS-Certified Trainers at Youth Villages grows, we are able to offer Tier 1 CPS training more frequently and to offer these in more locations so that staff don't have to travel

to another state to attend. This saves our organization money and also helps manage our resources better. For instance, staff attending a training in their home state do not need to be away from their clients as long, necessitating less coverage for staff and less disruption for clients. We can also tailor the training to a specific state's needs, since different states have different programming, different funding requirements, and different client populations. We also find that for staff that work in a state that has been using CPS for a long time, training can move rather quickly, because those staff have had exposure to and many doses of CPS in their work environment prior to attending Tier 1 CPS training. Alternatively, for staff that work in states where implementation is newer and/or leadership are not as well-versed in CPS, the Tier 1 training content might be relatively novel, so we can spend more time on philosophy and the basics of the approach.

Ideally, we offer separate Tier 1 trainings for different services (residential, community-based, school) so we can focus more specifically on each group's needs. We can do this in states or regions where there are enough CPS-Certified Trainers. This is an important element that allows for trainees to better connect with the model and feel it will work for them. Trainers need to offer examples and activities that resonate with everyone in a training, and this can get complicated when there are diverse services represented. With more trainers, more trainings offered, and more focused content, we can engage with smaller groups of trainees in a single service. We find that this provides a more satisfying learning experience for trainees and trainer alike.

Key Strategy #4: Deliver High-Quality, Consistent Coaching

One of the most challenging things in a large organization is ensuring that the guidance and support we deliver to our staff are of consistent quality, quantity, and content across the organization. This is especially important in the vital area of

CPS coaching. We have developed a number of methods for doing this at Youth Villages. For instance, we now have one of our most experienced Certified Trainers providing one-on-one coaching and support to new Clinical Training Consultants and other Certified staff who are coaching in their own states/programs. This leader can check for, and support, consistency across the cadre of Youth Villages coaches. She has developed coaching and training protocols, and she reviews processes to ensure that coaches across many states and programs are able to deliver coaching in a skillful and consistent manner that meets both Think:Kids' and Youth Villages' standards. For example, she reviews coaches' notes from each session, which are uploaded to a shared site, for usefulness and consistency across coaches, as well as reviews and provides feedback on at least one recorded coaching session per month from each coach, using a standard checklist of key CPS components. Finally, she leads a group meeting with all the coaches every other week to share ideas, troubleshoot difficulties, discuss issues, and make sure all coaches are on the same page with processes and coaching content. This is also an opportunity for coaches in different parts of the country, many of whom do most of their work remotely, to connect with others who have a similar role.

The typical coaching model for CPS is to provide 12–24 coaching sessions to a "closed" group of newly trained staff, building up their skills and internal resources so they can continue to effectively use CPS when coaching is complete. However, we have found that in our large organization, hiring is a perpetual process, either to replace staff who have left or to expand current programs in an area. So practically, it works better for us to have an ongoing coaching group for each office or region that newly hired staff join and from which seasoned staff eventually graduate. Since staff who are very experienced in CPS can still benefit from coaching on advanced topics, after a state/program has been doing CPS for a while, we may have one coaching group for new staff and one coaching group for more seasoned staff who have not yet completed the graduation process. It is useful, though,

to ask staff who have been using CPS longer to share their experiences with our new staff. This is helpful for both the new and the seasoned staff and promotes a culture of peer support and collaboration.

When a Youth Villages program is new to CPS, we usually need to assign a Clinical Training Consultant from a different state to provide coaching for their teams until we can get one of their clinical staff CPS-Certified and in a position to take this on. In many cases this means that the CPS coach will not be based in the same area or state as the coaching teams. In our multistate organization, we have become adept at using technology tools for communication, documentation, meetings, and support. All of our community-based direct care staff are issued laptops and are able to join meetings remotely, since they are usually driving around in the community seeing clients in their homes or at school. We use a commercially available online platform for our CPS coaching sessions and so are able to accommodate coaching teams across wide areas of a state and without requiring that everyone drive into an office location to participate. Even when we have a coach based in the same state or city as their coaching team, we sometimes still use the online platform for the coaching sessions for these reasons. Though there are definitely advantages to in-person coaching, and we use this whenever possible, we find that with the tools available on an online platform, we can create a sense of connection and community in the online coaching sessions. This flexibility has proven to be very important for both our coaches and our staff.

We have also tried to make our process for graduating staff out of coaching group consistent across programs/states, and we review and troubleshoot this process within the coaching team. When supervisors feel that a particular staff member is ready to apply for graduation from coaching group, they ask that staff member to submit an audio recording of a recent Plan B conversation to the CPS coach. The coach uses Think:Kids' integrity rating tools to evaluate both the CPS documentation for that client and the Plan B recording. In this way, we maintain consistent criteria for graduation, while

allowing for regional variability in language and tone of the Plan B conversation.

Key Strategy #5: Keep Everyone on the Same Page

One crucial part of large system implementation is making sure leaders in different programs and locations are implementing with consistency and are getting the support they need. There are a few mechanisms we use to help leaders share tips that support progress and to help with struggles. The first is a monthly national CPS steering committee meeting for community programs new to implementation, a monthly steering committee meeting for "veteran" programs that are further into implementation, and a monthly meeting for residential leadership. The goals of these meetings are to share implementation experiences and lessons learned and also for us to share any updates to the model or to our implementation efforts. A meeting that involves leaders from multiple states tends to also foster healthy and friendly competition. These meetings are held on a videoconference system and are recorded for review if a leader cannot attend.

Additionally, Youth Villages uses two mechanisms to ensure leaders and staff have access to the most up-to-date information. The first is a clinical portal that is available on the company intranet, which can be accessed by any Youth Villages employee. It contains information related to treatment interventions and clinical skills. The website is maintained and updated only by clinical leaders, so all content is controlled and current. We have created a Collaborative Problem Solving folder in this site where we have available all Think:Kids CPS forms, all internally created CPS forms, and other CPS resources for our staff. The second mechanism is a shared document management and storage platform, which is also accessible by all Youth Villages employees. There we have a section dedicated to Collaborative Problem Solving where we can upload Plan B recordings, share ideas

and activities, post CPS steering committee notes, and share other CPS info with all employees.

Key Strategy #6: Document and Integrate CPS into the Electronic Medical Record (EMR)

Youth Villages strives to provide evidence-informed treatment consistently across states. Even before adopting CPS, under our standard treatment model, two youth in different parts of the country with the same referral issue would have access to the same types of interventions and treatment. Besides ensuring that access to best practices is not limited by geography, this consistency also allows us to coordinate care as youth move through different programs or levels of care within our organization. Youth, families, and staff members share familiar language and experiences no matter what program is serving them. The use of CPS in all of our services enhances this consistency and continuity between our programs and states. All of our staff now use CPS language and concepts to talk about our clients' treatment needs and interventions.

Supporting the use of consistent treatment approaches across programs and states is our utilization of the same electronic medical record (EMR), which is managed centrally by the Performance Improvement department at our national headquarters. Though the EMR is individualized as needed for states to meet their regulatory requirements, the documents, functions, and language used throughout the system are quite consistent. Because of this, we have found that the EMR itself can be used as a tool to encourage consistency and facilitate implementation of the Collaborative Problem Solving approach, and there are two mechanisms in particular that have been helpful in this endeavor.

The first of these is a section that was added to every relevant progress note in the system that allows for brief and succinct documentation of CPS use within a session or shift. This section notes if CPS was used during the session/shift; what plans were used, if any; what problem was addressed; and what the outcome was. Staff supervisors, managers, and/

or CPS coaches can then run reports that pull only the information from this CPS section of the notes. These reports can be sorted by staff, team, or location to assess how and when CPS interventions are being used. In order to avoid duplicating information with the session summary, this section includes only brief Yes/No notation regarding whether a particular plan was used and a two- to three-sentence summary.

The second addition to the electronic medical record was the inclusion of the CPS Assessment and Planning Tool (CPS-APT) as a distinct document in each client's chart. The information entered into the electronic CPS-APT then pulls into the printed treatment plan used for supervision of staff, so the individual providing that supervision sees the CPS-APT information within the plan for treatment. This facilitates more focused discussion about how the CPS-APT is driving treatment conceptualization and planning. Staff are trained and reminded that the CPS-APT is a "living document" and something that can be discussed and updated during any or all of their meetings with a client/family. So, the CPS-APT in our electronic medical record is just a snapshot of what the APT looks like once a month, and staff are expected to keep a more dynamic paper copy of the APT with them for use when meeting with clients throughout the month. The benefit of entering the CPS-APT into the EMR once a month is that (1) it can be tracked and completion can be monitored and (2) clinical supervisors can access it and use it to provide treatment planning feedback and support.

As technology changes and new CPS tools are developed, Youth Villages will continue to look for ways to effectively coordinate care and track CPS implementation through the EMR or other technologies.

Key Strategy #7: Carefully Choose Where and When to Introduce CPS

Prioritizing where and when to implement Collaborative Problem Solving in a large organization is not very different than prioritizing problems to be solved. When deciding

whether or not to attempt Plan B with a problem, one considers the intensity of the problem, the relationship of the parties, and the readiness (stress tolerance) of all involved to begin the problem-solving process; a harder problem can be addressed if there is a good relationship and decent stress tolerance, but if the relationship and/or stress tolerance is not as strong, you might choose an easier problem to be solved or the "lower hanging fruit." We know that the intensity of introducing and implementing CPS in a program is quite high. So first we need to assess relationships in that program or state. Is there strong, stable leadership and are there relatively stable teams? Are working relationships positive and supportive? Would the teams be open to having new trainers and coaches enter their system? Then, we need to assess readiness for change. Introducing something new to a system will inevitably stress the system, so we have to ask whether our programs are strong, flexible, and open enough to manage this stress in a healthy way. In essence, we are considering the thinking skills of the people and culture in that system, because those will support successful implementation.

The selection of Oregon as the first implementation site was strategic because the state has an expansive pool of CPS experts. Many organizations in Oregon adopted CPS years ago when the state Department of Human Services offered technical and financial support to do so, believing early on that CPS was best practice for Oregon youth and families. As a result, Tier 1 and Tier 2 CPS trainings are held in various Oregon locations frequently and at minimal cost per participant. CPS was already infused into community organizations, and most referral sources, funders, and state leaders in Oregon not only know about CPS but also fully expect programs to embrace it. Oregon was, in a sense, the "lowest hanging fruit" for implementation in our organization. The community was prepared and supportive, there were sufficient resources for training and coaching, and the leadership within the organization was enthusiastic. Readiness was high.

The selection of the next two states for implementation was also strategic. Massachusetts was chosen because it is

the home state of Think:Kids. While implementation of CPS in Massachusetts is not as widespread as in Oregon, there is a clear advantage with the location of the Think:Kids program in Boston. Memphis community-based programs were also selected at this point because the national headquarters for Youth Villages are located in Memphis. The selection of these two areas, then, was based largely on the relationship factor and potential support, as determined by proximity to both Think:Kids and Youth Villages' corporate headquarters.

Throughout the expansion of CPS into Youth Villages' programming, it became even more apparent that leadership readiness and enthusiasm for CPS was critical to successful implementation. There are many reasons that leaders want to implement CPS: they believe in the philosophy, they believe it is best practice for their clients, they believe it will help them retain and support staff, or they want to draw resources and support for their program, among many others. These leaders will not necessarily become experts in the CPS approach, but it is simply critical for the leader of a program to want implementation of CPS to be successful, for whatever reason. That enthusiasm is what drives implementation forward when the going gets tough.

Additionally, we found that enthusiasm is contagious. As programs and states enthusiastically implemented CPS within Youth Villages, other state leaders took notice and became excited about the opportunity to implement within their programs. For example, Rural West Tennessee and Memphis programs are all under the leadership of the Program Director of West Tennessee. When we implemented in Memphis, West Tennessee was able to observe that success. With this exposure to both CPS concepts and the enthusiasm of their colleagues from Memphis, our Rural West Tennessee leadership was eager to begin their own CPS implementation as soon as possible. We found that expansion into an area under leaders who have already implemented or been exposed to CPS elsewhere is significantly easier than beginning with new leadership.

Initially, we did not elect to implement CPS in our psychiatric residential programs in Memphis because we perceived that implementation in residential treatment would be a bigger challenge than in our community programs. When we finally decided to introduce CPS to our residential programs, this leadership enthusiasm was also a consideration. Youth Villages programs in Memphis, Tennessee include five large residential programs. Two of the five residential programs in Memphis adopted CPS in 2016. One is a staff-secure campus with 8 cottages (88 youth), and the second is a hardware-secure program for 64 girls. The key factors for selection of these programs were both leadership readiness and program stability. These two programs were the "low-hanging fruit" of our residential services, and their Directors have been clear with staff about the expectations around implementation while also listening to staff feedback about how it is going and adjusting as necessary. They have embraced the approach themselves and are using it with their supervisees, modeling a "people do well if they can" approach in the workplace. And they are both very enthusiastic about and invested in the success of both the CPS implementation and their programs, believing that our services are truly creating sustainable positive change for the youth in their care. With this type of leadership, our implementation in these two residential programs has gone much more smoothly than we expected, and some of the staff from each of these programs are now in the Think:Kids CPS Certification Program, with one on the way to becoming a CPS-Certified Trainer.

Key Strategy #8: Build a Hierarchy of Support

A final key to successful implementation in a large system relates to accountability with one person who is in the appropriate leadership position. At Youth Villages, implementation of any evidenced-based practice (EBP) is the responsibility of the Clinical Services Department, led by the Chief Clinical Officer. Key personnel within the department have the role of

overseeing the clinical integrity of any EBP implemented, as well as the clinical integrity of each program. There is a Clinical Services Program Manager for each of our services (in home, residential, foster care, etc.), and each is a licensed mental health professional with many years of experience. They work extensively with state directors to support program implementation while also holding the state leaders accountable for fidelity to program models and EBPs. Each EBP implemented at Youth Villages is under the purview of one of these Clinical Services Program Managers. The responsibility includes ensuring fidelity by overseeing the quality of training and coaching. These clinical leaders report directly to the Chief Clinical Officer, who is responsible for clinical integrity, rather than to the Chief Operations Officers, who oversee program operations. This separation is useful because it allows the Clinical Services Program Manager who oversees the CPS implementation to focus solely on implementation and fidelity without getting distracted by day-to-day operations and the operational crises that sometimes arise.

Having emphasized the importance of top-down support for CPS implementation, we also want to stress the importance of a bottom-up approach with the implementation process. As we have said, the CPS approach was a big shift for staff, especially for staff who had been working for a long time at Youth Villages, where for many years we employed mostly operant approaches and didactic skills training. It was important to give staff some control, to hear and address their concerns, and to engage them in being part of the implementation in their states and programs. As our implementation has expanded, we have connected staff from areas that have been using CPS for a while with those who are just beginning implementation so that they can share ideas and tools that have worked for them. The newly implementing programs can then take these ideas and adapt them to fit their particular environment or population, but we find that these connections can be extremely valuable in moving an implementation forward.

We have also been careful about the pace and the way in which we remove the operant interventions that a program

has been using. Again, we want staff to have some control of this, in the same way that we want families to have control of this in their homes. We are careful that we don't remove all the familiar and trusted tools that staff have been using before helping them become proficient with this new way of thinking and working with their clients. This has been especially powerful in our residential programs, which were steeped in conventional wisdom and used point and level systems to manage the environment. We found that if we said we didn't want them to change what they were doing, but simply to add CPS for now, they had much less anxiety about the change, and it went more smoothly. We asked them to practice CPS and become comfortable with the philosophy, assessment, and the Plan B process. In both of the residential programs referenced above, after about 8–10 months, the staff approached program leadership and said that the point and level system did not seem useful to them anymore and asked to get rid of it. Of course, the answer was a resounding yes! As we become more familiar and comfortable with the implementation process, one lesson has been that sometimes you must have faith that the implementation will move along at its own pace (which is easier once you've seen it work in other areas).

Key Strategy #9: Pay Attention to Culture

A point not to be overlooked in a nationwide program is that trainers and coaches need to know and speak to their audience. Youth Villages has programs in many Southern states, as well as programs on the East and West Coasts and in the eastern Midwest. For our staff and clients, their local and regional culture is an important part of who they are. The Tennessee culture contrasts in many ways with the culture in Oregon, which is in turn different from the culture in Massachusetts. It also can feel significantly different in Mississippi than it does in North Carolina, and Florida is different from Georgia. In essence, each region of the country

and each state has its own culture and identity, and this impacts how people from that area hear and understand the "skill not will" philosophy of CPS.

Our Lead Trainer is from Oregon, and when she began training staff in Memphis, there was feedback that she was "too soft" and was not direct enough with staff about the expectations we had for their adoption of the CPS approach. A training style that worked well for her in Oregon did not necessarily fit in Tennessee. She found that she needed to speak more loudly and definitively and to adopt a more directive style when training in the Memphis programs. One could go too far in this other direction, however, as we also got feedback about a trainer from Boston that his style was too abrupt. Add to this the complicated dynamics of race, ethnicity, language, and gender, and the work of connecting and finding a style that resonates for your audience, while remaining authentic, can be quite a challenge.

Our goal is to have coaches and trainers who are working with staff in the communities in which they live. This does not, of course, guarantee resonance, but is very helpful. For example, when we implemented CPS in our Mississippi programs, we had a coach from Eastern Tennessee meeting remotely with those teams. Our implementation progress was slow in that state, and we went almost 2 years without having many staff demonstrate the confidence and fidelity to the model necessary to graduate from coaching. Then we were able to have one of our lead clinical staff from Mississippi take over the coaching when he became CPS-Certified. In the first 9 months after he started coaching those teams, 20 staff graduated from coaching. It seems this did not have to do with the relative skill of the two coaches but rather had to do with staff feeling more connected to the coach from their own area and his ability to present concepts and talk with them in ways that felt more understandable and familiar to them.

We do not have a person certified to coach in every state or program in our organization, and so our most important connection tool is Collaborative Problem Solving itself. Each of our trainers and coaches first needs to be self-aware

enough to understand how they are being perceived by others, and this is a thinking skill that we want to nurture in them. Then, they need to be open, ask questions, use empathy, and seek to understand the mindset, culture, and needs of their audience wherever they are coaching or training. Observing, listening to, and really understanding how folks are absorbing the CPS philosophy and approach will help us appreciate and respond to their concerns in a way that can resonate more strongly for them.

In Closing

We knew we had succeeded in shifting our Youth Villages culture to CPS when, at the annual Youth Villages Employee Conference, references to CPS were naturally woven into the staff skits and presentations from all over the country. It was a joy to see so many of the workshops offered at conference have some CPS connection or focus. The best indication of our successful implementation, however, came in the closing session of our conference, during which our CEO interviewed a family that had just completed our services. A young man and his aunt, who raised him, both spoke eloquently about how learning the Collaborative Problem Solving approach had changed their relationship with one another and had helped each of them shape happier and more satisfying lives. The aunt shared that she had been angry and closed off toward her nephew and that the experience of having our staff take the time to listen, empathize, and support her was really the key to her being able to regulate herself enough that she could do the same with her nephew. This so clearly describes the power of the CPS approach and affirms the importance of bringing CPS to all of the clients we serve across our large organization.

Chapter 7
Implementing and Practicing Collaborative Problem Solving with Integrity

Alisha R. Pollastri and Arielle Wezdenko

How do I know if an individual is doing CPS "right," and how can I support the practice of good CPS in my organization or school? Integrity[1] to an intervention is the degree to which an individual is practicing that intervention the way it was intended [1, 2]. Measurement of integrity is an important aspect of implementation. In fact, the most reputable repositories of evidence-based programs and practices require a method of integrity measurement in order to obtain the

[1] Throughout the literature on this topic, *the terms integrity* and *fidelity* often are used interchangeably. For the purpose of continuity, we use *integrity* in this chapter, even if we are reviewing work that has been done under other terms.

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highest level of support as an evidence-based practice. In this chapter, we will help the reader understand the importance of maintaining adequate integrity to the CPS approach and will describe the tools available for assessing CPS integrity.

When examining integrity to an intervention, there are several dimensions to consider. *Adherence* refers to ensuring that all components of the intervention are being delivered. *Quality*, or *competence*, refers to how well an intervention is delivered, such as if the main program components are delivered clearly and correctly [3]. *Dosage*, or *exposure*, refers to the amount of intervention that the client receives, in other words, whether the client is receiving the recommended frequency and duration of intervention [4]. Finally, *differentiation* is the degree to which the intervention is clearly distinguishable from comparison, control, or standard-of-care interventions [5].

The content and mode of delivery of an intervention is decided upon using evidence-based theories that developers believe will result in specific outcomes. Thus, delivering the content in the way it was intended to be delivered, in theory, optimizes the likelihood that a provider will attain the intended outcomes [1]. Efforts to bridge the gap between science and application have placed increasing focus on dissemination and implementation of evidence-based practices into community settings. Thus, at every stage of evaluating an experimental intervention, it is critical to assess integrity to the approach as it was developed. At the first stage, when the intervention is being tested on what is likely a small number of individuals in a very controlled setting, it is critical to assess integrity because when you assess that an experimental practice is delivered as intended, you are then able to make valid inferences from these studies about the effectiveness (or lack thereof) of that experimental practice. Then, once an intervention is found to be effective in a controlled setting, and later tests of the intervention are done in community settings, it is important to assess integrity to be sure that practitioners are replicating the original (proven) practice correctly. Then if it is found that the intervention worked in a controlled set-

ting but not in the community, you can be sure that the difference was due to a factor in the setting or the population, rather than with the delivery of the intervention itself.

From an evaluation perspective, then, it is necessary to develop an adequate way to assess integrity even before preparing to evaluate outcomes related to the approach; you must show you are actually practicing the approach as intended before you can know whether your effects are due to the approach! In an extreme example, let's imagine that the (fictional) Sunrise Program trained its entire staff in CPS and provided weekly coaching, while the (equally fictional) Sunset Program continued care as usual. Six months later, administrators noticed that at the Sunrise Program, rates of staff turnover had decreased dramatically and staff reported lower rates of stress and burnout, while turnover, staff stress, and burnout rates at the Sunset Program showed no change. What is the likelihood that this improvement in outcomes occurred as a result of staff learning and using CPS? What if I told you that we measured integrity and found that staff at Sunrise Program understood and were using CPS frequently with youth in their care and that the quality of their delivery matched the training almost perfectly? Hopefully, you would report with confidence that the differences between these two programs were due to CPS. How would your answer change if I told you that we measured integrity and found that the staff, despite training, were doing little to no CPS with the youth in their care? Hopefully, your confidence is now wavering! Perhaps the changes in turnover, stress, and burnout were due to another factor (like a change in leadership, or a different training), or perhaps it was the "breathing" time that the CPS coaching sessions allowed (or the donuts that the director brought to coaching sessions), but not CPS itself. Now let's imagine that I told you that we actually didn't measure integrity at the Sunrise Program; we just assumed the staff were doing the intervention with adequate integrity by the time we measured the outcomes. How, then, would you know whether the changes in turnover, stress, and burnout could be confidently attributed to the intervention? You

couldn't. As this example illustrates, without assessing integrity to the intervention, an evaluator may misinterpret outcome data. For instance, a false-negative finding might occur if program was not implemented with integrity, the evaluator assumed it was, and outcomes were poor. In this case, the evaluator, and thus the clinical team, may prematurely dismiss an intervention as "not working," when it was them who were not working! Conversely, a false-positive finding might occur if the intervention is not implemented correctly, the evaluator assumed it was, and outcomes were good. In this case, the intervention would be celebrated, or even published, as an effective practice, and other similar programs may waste resources implementing it without success. Perhaps it was an extraneous variable that caused the effect, like in the case of the Sunrise Program, or it may have been that the "incorrect" variation of the program is what caused the effect. In either of these cases, measuring integrity data would have resulted in more accurate conclusions and saved resources.

In addition to supporting claims that a new practice or approach affected outcomes, measuring integrity has other practical advantages. Stakeholders (purchasers, providers, consumers) can use integrity data to discern whether the program purchased was delivered and received as intended [6]. Clinical supervisors can use integrity data to inform areas in need of support in their supervisees [7]. In this way, monitoring integrity during supervision creates a feedback loop that can be used to ultimately improve integrity. Finally, program administrators can use individual-level integrity data to allocate training resources to those staff who need extra support, or to particular areas of training that don't seem to be sticking, in order to stretch and maximize every training dollar.

Despite the above arguments for the importance of integrity measurement, there are few interventions that have reliable and validated measures [2, 8]. At Think:Kids, we have been developing strategies and tools that can be used to assess whether an individual, or even a whole orga-

nization, is "doing CPS well." We teach these strategies and tools to individuals and organizations looking to implement CPS well and will begin using themselves every time we study outcomes of CPS in a new setting. In the rest of this chapter, we will talk more about these recent efforts and tell you what tools are currently available for this purpose.

Assessing Integrity to CPS

As discussed previously, measuring integrity should include attention to *adherence* (are all components of CPS being delivered?), *quality/competence* (how well are the CPS components being delivered?), *dosage/exposure* (are clients[2] receiving the recommended frequency and duration of CPS components?), and *differentiation* (are practitioners avoiding use of other approaches that are theoretically opposed?). At Think:Kids, we have developed formal and informal ways of assessing integrity of CPS by examining practice at the level of the individual practitioner and at the level of the organization.

Whether you are focusing on the individual and/or the organization, CPS integrity should be assessed by an individual who is, him or herself, an expert in the approach. Ideally, this would be a CPS Certified Trainer who has some experience coaching individuals and systems on implementation, but that is not always practical or possible. The minimum requirement for an integrity evaluator should be completion of Tier 2 training. However, this alone shouldn't be the sole prerequisite. Keep in mind that your integrity assessment can only be as good as the assessor's knowledge of CPS and ability to communicate constructively and poor or misguided

[2] Throughout this chapter, we will refer to the individual that is the target of CPS as a "client," with the understanding that in your setting, the client may be better described by "patient," "student," "resident," or something else.

assessment can be frustrating and confusing for CPS practitioners.

So where can you find the material that you will use as your "data," in order to assess integrity? Data for this purpose comes from a variety of sources, including direct observation of practitioners; audio or video recordings of practitioner-client interactions (with consent!); standard client records and documentation of client interactions; and CPS-specific documentation including the CPS Assessment and Planning Tool or the Plan B Tracking Sheet.[3] In deciding on your data source, you will want to consider a number of factors, including the reasons that you are assessing integrity, the rigor with which you want or need to do so, the staffing and time that are available for integrity assessment, the technology available (e.g., recording equipment or electronic record keeping systems), and any specific features of your setting that may make particular types of data easier or harder to capture. For instance, in some settings, such as in residential treatment units, CPS becomes part of every interaction, and thus trying to collect video recordings of Plan B conversations may be less practical compared to educational or outpatient settings where Plan B conversations tend to be more bounded. In settings that have electronic health records, it may be practical to pull random samples of standard documentation on a regular schedule and monitor integrity in this way. For settings in which it's impossible to do observation of clients or review of documentation, none of these may be practical or even possible. For these settings, we have created written vignettes to which practitioners can respond. Evaluators then assess to what extent each practitioner responds to the fictional vignette in a CPS-consistent way. (A study of the correlation between integrity ratings on this type of vignette measure and direct observation is being conducted as this chapter goes to press. While integrity ratings on this measure may not be perfectly correlated with integrity to

[3] Many tools like these are available, for free, from www.thinkkids.org.

CPS with a real client, we expect that is correlated to some degree and is still better than nothing!) Once you know what type(s) of data you will be using to evaluate CPS integrity, you can pick the integrity tool(s) that are right for you. We continue to develop and evaluate a variety of integrity tools, and information on the latest tools can be found on our website or by contacting our Research and Evaluation team at Think:Kids. A sample of assessment methods and tools are described below, which can be used alone or in combination. The most current version of each tool is available by contacting Think:Kids. Table 7.1 compares these different methods and tools on a number of important factors (Video 7.1).

Expert Coding

If you have a CPS expert who has extra time on his or her hands, the gold standard method for assessing integrity to a practice is to have an expert in that practice observe practitioners with the patients, students, or clients in their care. In addition to needing an available expert, you will need a quantitative method for that expert to rate his or her observations. For this purpose, we have developed a coding system called the CPS Manualized Treatment Integrity Coding System (CPS MEtRICS), consisting of the CPS Treatment Integrity Manual (CPS-TIM) and corresponding CPS Treatment Integrity Rating Form (TIRF). This coding system requires that the CPS expert observe an interaction between practitioner and client and rate which CPS components (and which contraindicated components) occur (*adherence* and *differentiation*) and to what degree of quality they occur (*competence*), during the interaction, in 5-min increments. By observing random interactions over time, the rater can also combine ratings to understand the frequency or quantity of CPS that is being delivered (*dosing*). These observations could be live, but the method works better with video or audio recording, so the rater can stop or rewind the interaction when necessary. Because this method is costly due to staff time needed,

TABLE 7.1 A comparison of methods for assessing CPS integrity

Method	Relevant tool(s)	Assesses individual integrity	Assesses organizational integrity	Assesses adherence	Assesses quality	Assesses dosage	Assesses differentiation	Cost in time and staffing	Max quality if used alone
Expert coding	CPS Manualized Treatment Integrity Coding System (CPS MEtRICS)	X		X	X	X	X	High	Excellent
Self- or supervisor report	CPS Treatment Integrity Rating Form, Short version (CPS TIRFS)	X		X	X	X	X	Low	Limited
Document review	Document Integrity Rating Form	X	X	X	X	X	X	Moderate	Good
Fictional vignette	CPS Knowledge Assessment, Part A	X		X	X		X	Low	Limited
Organizational integrity assessment	Site Self-Study		X	X		X	X	Low	Good

and because expert coders must be trained to a level of high inter-rater reliability, it is frequently reserved for times when extremely precise integrity ratings are needed, such as in clinical trials and other research evaluations, or when a staff member is pursuing CPS Certification, in which case these expert ratings can be completed by Think:Kids staff and relayed back to the practitioner for the purpose of increasing the practitioner's integrity to reach an integrity benchmark.

Supervisor or Practitioner Report

Many organizations either don't have the in-house CPS expertise or available staff time to use the gold standard method of expert coding. In this case, another option is to have supervisors or even the practitioner himself or herself complete self-report ratings. For this purpose, we have developed the CPS Treatment Integrity Rating Form – Short version (CPS TIRFS). This rating form assesses *adherence* to, and *competence* in delivering, the same CPS components that are covered in the full CPS-TIM and CPS TIRF and monitors *differentiation* from contraindicated practices. Over time, data from multiple CPS TIRFSs can also be used to calculate *dosage*. Rather than rating in 5-min increments, the rater provides a single global rating for each component, summing up impressions from an entire interaction. Supervisors are asked to complete the CPS TIRFS after providing supervision to a practitioner in which a CPS case is reviewed, or after reviewing a recorded CPS interaction. A practitioner is asked to complete the CPS TIRFS immediately after a session or interaction in which he or she used CPS. The major disadvantage in this method is that the ratings will only be as good as the rater. Thus, the supervisor-rated TIRFS should only be used when supervisors are very knowledgeable about CPS, and the practitioner-rated TIRFS should only be used if the practitioner is very knowledgeable about at CPS and the organization wants to gather information on frequency of different components used or on dosage across programs. While in most organizations this method may not give precise enough integrity information for use in research and

evaluation, it can provide an excellent tool for increasing integrity during supervision. For instance, a practitioner and supervisor could both complete a CPS TIRFS about the practitioner's recorded session and then discuss places where one or both saw areas for improvement in integrity.

Document Review

The two methods discussed above work best in settings where CPS interactions occur in bounded sessions: outpatient or in-home therapy, educational settings, or meetings with probation officers. In milieu settings, in which clients and staff live in a therapeutic community, CPS interactions are likely to occur in a series of very small interactions that continue over long periods of time. In those settings, it tends to be harder to find, and rate, distinct CPS interactions. For instance, the assessment phase of CPS, which in outpatient or in-home settings often occurs during a therapy session with a caregiver, may happen only in documentation or in a staff team meeting. Even proactive Plan B conversations are more likely be spread over time rather than bounded, with the collection of information about the client's concern occurring in a series of quiet moment during a meal or during teeth brushing. In these settings, rating-bounded CPS interactions may not be practical. Supervisor-rated CPS TIRFS may work if the supervisor has very close observation of the staff member or gets detailed reports of interactions over time. However, what we have found works better in these settings is to use documentation reviews to assess and monitor integrity. This typically needs to be customized to the organization, because every organization's documentation practices are different (not to mention state regulations!). The first step is to review and revise current documentation practices, including treatment plans, shift reports, daily progress notes, behavior plans, etc., to make sure that the documentation permits, and even encourages, documentation of lagging skills, unmet expectations and triggers, Plans to be used, and tracking of Plan B conversations and enacted solutions. Once CPS-consistent

documentation is in place, supervisors that have advanced CPS skills can plan how they will pull and review documentation and provide feedback to staff on lapses in integrity that can be observed in documentation. For instance, review of a treatment plan may find that a particular staff member is listing challenging behaviors in the section reserved for triggers and unmet expectations. A discussion about this may help identify that this staff member needs refresher training on the basics of CPS assessment. Review of a behavior plan and daily progress note may find that although a solution for a particular trigger was discussed and put in practice on Tuesday, milieu staff used Plan A the following day for that trigger, which led to a youth's aggressive behavior and a physical restraint. A discussion about this may lead to a new way to communicate enacted solutions to staff on different shifts. Document review works best for the purpose of internal quality control; however, ratings of particular staff teams' documentation over time could also be matched with outcomes for that team. Though typically used in a more qualitative fashion for the purpose of supervision, organization-specific rating forms can be designed to collect more quantitative data on integrity. Either way, document review provides information on *adherence*, *competence*, *dosage*, and *differentiation*.

Fictional Vignette

Although it does not provide a view into how a practitioner responds in a real-world interaction with a client, sometimes you may simply want to evaluate whether a practitioner has learned the content of the CPS approach and understands the basics of how to deliver that content in an interaction. One very low-cost option for doing so is to ask the practitioner to respond to fictional vignettes in which typical clients appear in typical situations. The practitioners' responses can then be rated based on a rubric that addresses *adherence*, *quality*, and *differentiation*. We have developed one such set of vignettes for use with youth, called the CPS Knowledge Assessment

Part A (Part B is a multiple-choice content assessment that can be given at the same time). Plans to create standardized video vignettes are underway. An organization interested in this method may decide to develop their own vignettes that represent situations more customized to their own setting.

Organizational Integrity Assessment

CPS is not only a way of intervening with challenging individuals but is also a philosophy about the reason for challenging behavior. Thus, when an entire therapeutic or educational program implements CPS, it is not only individual practitioners' interactions with their clients or students that change. An organization may notice other aspects of their work changing, including the way all staff talk about and interact with clients (and each other), documentation practices, standard operating procedures for "misbehavior," and professional development schedules and practices. Once CPS becomes fully embedded in the program, staff may see observable signs of the CPS philosophy in every aspect of the organization; in one case, we saw an organization's mission statement change in response to adopting CPS! Thus, focusing integrity assessment only on individual practitioners may result in missing important aspects of "doing CPS well." In order to assess, monitor, and improve these organization-wide factors that, when done with high integrity, can support practitioner-level integrity, we have developed a checklist of these factors. For example, items on this checklist include "Is there an organization-wide stance on critical incidents that is consistent with CPS?" and "Is there a lack of motivational point and level systems?" Staff or leadership teams can use this checklist informally to see how well their organization has been setting their practitioners up for success with CPS and can identify areas for improvement at the system level. Additionally, sites can request extensive consultation around organization-wide CPS integrity that includes a detailed review of documentation, interviews with staff, a review of audio and video recordings, and a site visit by a CPS expert

that is external to their organization. Outcomes of this assessment include detailed feedback and opportunities for additional consultation to improve organization-wide integrity, and sites that reach an integrity benchmark can be designated a "CPS Associate Site" or "CPS Certified Site."

Monitoring and Improving Integrity in Your Organization

If you are implementing CPS, we encourage you to use the techniques and tools described here to measure, and track, and improve the implementation of CPS in your practice and/or in your organization. Doing so will allow you to know whether the outcomes you see (whether good or disappointing) are likely to be related to the use of CPS and will also allow you to target additional training and coaching where needed. In this way, you can maximize integrity by monitoring integrity.

Although some have found that integrity is an important factor in assuring positive clinical outcomes when practices are delivered in community contexts (e.g., [9]), others have found that flexibility is beneficial, especially in complex settings [10–12]. So how can we get the benefits of integrity, as argued above, yet be flexible enough to accommodate the many different settings and populations in which we are finding CPS to be useful? We would actually argue that flexibility is built into the CPS approach and that part of doing CPS with integrity is responding flexibly to the needs, the stated concerns, and the skill limitations of the client and/or caregiver.

With this in mind, as you use the integrity assessment tools reviewed in this chapter, or you design your own, note that rigid adherence to particular components is sometimes not possible or optimal because services need to be adapted/tailored to specific settings or to client populations. For example, some clients may be of a particular developmental level or culture that calls for some components to be used more than

others. Or in short-term placements, clients may be assessed, and then only selected elements of intervention can be implemented in the time available, so it wouldn't make sense to assess adherence to every component of CPS or to strict dosage requirements.

It may be hard for an individual or organization that is new to CPS to know which components of CPS should be rigidly adhered to and which can be more flexible. In fact, this can be a challenge even for CPS experts. In these cases, remember that this is still a relatively new approach and we continue to learn how to adapt the approach across settings, populations, and individuals. Research will continue to guide us, and administrators and clinical staff should come together with CPS trainers and coaches to make informed decisions about how best to assess integrity in a way that is structured and yet flexible to each setting.

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Chapter 8
Research and Evaluation of CPS Outcomes

Alisha R. Pollastri and Lu Wang

One year ago, you began training your staff in Collaborative Problem Solving (CPS). During the past year, you have spent training dollars and allocated professional development time to CPS. Your staff have spent hours in weekly CPS coaching groups. Your leadership staff have met many times to discuss how operating procedures and documentation needed to change to support CPS and monitor integrity in practice, and work-groups spent time making those changes. As with other similar program changes, the direct and indirect costs of adopting CPS in your organization were significant.

As the first year ends, you call the staff together and ask the group, "So, has CPS worked?" Some of the staff respond with a resounding, "Yes!" They describe clients or students that they don't believe would have benefitted from the old practice. A

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few, however, say that they believe they would have done just as well with the previous practice, and all the extra effort wasn't worth it. Many staff are unsure; they recognize that it was a lot of work to learn this new approach and like the changes in culture that they sense, but they don't quite know whether it "worked." They recognize that each of them only knew their own caseload or classroom; they don't have a good understanding of how the group did overall.[1] So you take their comments to the relevant stakeholders (perhaps a board of directors, or your funders, or maybe a parent organization), and they ask you the following questions: Was CPS worth the cost? Are there particular staff who are using the new program well and others who could use more training? Are there particular clients or students who benefited and others who didn't benefit as much? How will you answer their questions?

When we introduce CPS to a new organization or school, we usually take a moment to ask members of leadership how they plan to measure whether CPS has the intended effects. Quite often, in response to this question, we get a quizzical look or a furrowed brow. Even when administrators of educational, correctional, and mental health programs have been trained on the importance of outcome evaluation, they may not know where to start to evaluate their own outcomes. The purpose of this chapter is to demystify the process of outcome evaluation for those who are looking to implement CPS (or any new program or practice) and who want to monitor outcomes to know if it is "working." First we will briefly review the outcomes that have already been measured and related findings. Then we will outline the six steps you will need to follow to conduct basic outcome evaluation in your school or organization in order to answer your questions about whether, and how, CPS is working for you. Finally, for those who have more traditional research resources available, as well as the desire to advance our understanding of the

[1] Additionally, research tells us we grossly overestimate our own abilities and the improvement of our clients (see [19]). It is apparently very difficult to be accurate judges of our own work, regardless of which approach we use!

approach more generally, we outline those areas that are in need of further research exploration and understanding.

What Do We Already Know About Outcomes Related to CPS?

Because of programs that have carefully evaluated outcomes before and after implementing CPS, we already have an understanding of some of the outcomes that can be affected if we implement CPS well and ways others have evaluated these outcomes. This past work can inform your efforts to evaluate outcomes by helping you think of the particular outcomes you may want to evaluate and the methods and measures you should use. In some cases, you may want to choose outcomes that have already been explored, and in other cases, you may want to choose to examine new outcomes, either because those are the outcomes in which you are interested or because you want to further our understanding of the approach. Following is a summary of research on the effectiveness of the CPS approach, organized by setting (for a review, see [14]). Although CPS is increasingly being used in young adult and adult settings, the vast majority of the completed studies have been completed in youth settings.

Outpatient and In-Home Treatment

Evaluations of CPS in outpatient and in-home settings have found that CPS is effective for reducing symptoms of ADHD, oppositional behaviors, and parenting stress and for improving relationships between parents and their children [4, 7, 11]. CPS has been found effective with individual families (outpatient and in-home) and in outpatient parent groups. Preliminary research suggests that the key mechanism behind treatment effects may be children's improved executive functioning skills [9]. A randomized controlled trial suggested that CPS is at least as effective as a standard behavioral parent-training model for improving youth behavioral symptoms [7].

Inpatient and Residential Settings

Evidence in inpatient settings suggests that CPS is effective to reduce the use of physical and mechanical restraints and seclusions [8, 13]. Such reductions in restrictive practices can contribute to significant cost savings [12, 15]. In addition to externalizing symptoms, the use of CPS has been associated with improved social skills, increased community engagement, and fewer internalizing symptoms (for a review, see [15]).

Educational Settings

Using CPS in educational settings has been consistently associated with reductions in disciplinary outcomes such as physical restraints, seclusion, suspensions, and alternative placements. Teachers who learn CPS have reported less stress and improved confidence and relationships with students [17]. CPS has also been associated with improved student attendance and family participation. More recent research suggests that students who received CPS in school exhibited improved skills in the areas of behavior regulation and emotional control [18].

Correctional Settings

Preliminary results suggest that the use of CPS in youth corrections can decrease violent outbursts, restrictive interventions such as seclusion, and staff injury and the use of CPS has also been associated with decreased recidivism rates [14].

Six Simple Steps for Evaluating Your Outcomes

While *research studies*, including randomized controlled trials, are intended to contribute to an understanding of whether the practice or approach being studied is better than another in general, *outcome evaluations* are intended to measure the process or delivery of care for a particular organization. Some

reasons to conduct an outcome evaluation include (1) to determine whether you are seeing benefits of the program (and, if not, to know you need to make a change); (2) to identify subsets of staff or patients that are not getting the maximum benefit, in order to inform decisions about further training or supplemental interventions needed; and (3) to justify costs to stakeholders on whom you are dependent for approvals and funding.

Designing and conducting an evaluation with reasonable scope are not as difficult as they may seem, and there are many relatively simple but scientifically sound projects that you can conduct with basic knowledge of research methods and simple statistics. Good information can be gleaned from relatively simple evaluation by following best practices and by being aware of the limitations of the type of evaluation design that you choose. Below we outline the steps of such an evaluation, and we use a fictional case example to demonstrate how you can plan and conduct a successful outcome evaluation, so that when someone asks you, "Did it work?" you will be confident in your answer. If you are fortunate to be in a district or agency that has a research or evaluation department, and you are already monitoring outcomes, you may find that your program is already following many of the recommendations here, though you still may find some helpful tips.

Step One: Decide What to Measure

Why did your organization turn to CPS? What are you hoping will be different in a year, or two, or five? Perhaps you are trying to decrease the use of restraint or seclusion. Maybe you are frustrated by low staff morale and high turnover. Or you could be trying to build clients' executive functioning skills to decrease repeat admissions or recidivism. Once you have clarified what you are hoping will be different as a result of CPS, you know what you will need to measure. This is called your *variable of interest*. It is best to pick a few rather than just one if possible, so as to not depend too much on one

outcome. However, if you pick too many, you improve your chance of a false positive; odds tell us that the more factors you measure, the more likely at least one factor will show improvement just by chance alone. So we recommend picking three to five variables of interest.

There are a few things to consider as you determine your variable of interest, which are outlined below and also summarized in Table 8.1. First, consider the time that you have for this project, and try to pick a factor that will change quite a bit over that time. For instance, if you only have 3 months to see change, you may want to measure something that is likely to change earlier in implementation (such as staff attitudes) rather than something that takes longer to change (such as clients' skill development).

Second, to increase the power of detecting changes, you can pick a variable that will change a lot, increase the number of participants you are surveying, and/or increase the number of timepoints to measure. For example, if you will survey only 20 clients, you will need an outcome variable that will change a lot in proportion to its natural variability across individuals, or you should take frequent measurement; if you will survey hundreds of clients and/or you will measure progress monthly for 6 months, you will be able to use an outcome variable in which the change is smaller.

Third, at least some of your variables of interest should be *proximal* to your implementation. A proximal outcome is one that is more directly impacted by your intervention, rather than one that is a *distal*, or downstream, effect of the intervention. For instance, while you might hope that standardized test scores will be affected by implementing CPS at your school, a more proximal outcome is the number of times students are sent out of class to the office, because frequency of office referrals is more directly impacted by the intervention. You could also examine test scores as a secondary variable, to explore whether there are downstream effects of time in class to test scores; but you must keep in mind that test scores are impacted by other factors unrelated to the use of CPS (e.g., curriculum or staff changes), so it will not only be more dif-

Table 8.1 Commonly measured variables of interest for evaluating CPS outcomes

Level	Variables of interest	Type[a]			Time to change	Recommended measurements	
		T	PO	DO		Think:Kids[b]	Other common methods[c]
Individual clients							
	Functional thinking skills			x	Long	TSI	BRIEF2, CAFAS, BASC3
	Ability to solve problems and meet expectations		x		Moderate		Observations or CBCL
	Frequency of challenging behaviors			x	Moderate	CPS-APT	Observations or CBCL/ BASC
Caregivers							
	Skill-not-will mind-set	x			Short	CPS-AIM	Observations and CPS integrity monitoring tools

(continued)

Table 8.1 (continued)

Level	Variables of interest	Type[a]			Time to change	Recommended measurements	
		T	PO	DO		Think:Kids[b]	Other common methods[c]
	Stress/burnout			x	Moderate	CPS-AIM	PSI, ITS
	Skill at CPS delivery	x			Moderate	CPS-AIM	Observations and CPS integrity monitoring tools
	Perception of competence			x	Moderate	CPS-AIM	
	Hopefulness and perception of positive impact			x	Moderate	CPS-AIM	
Dyad							
	Relationship			x	Short to moderate	CPS-AIM	PCRI
Organization							
	Quality and frequency of CPS	x			Moderate		Observations and CPS integrity monitoring tools

Restrictive or exclusionary disciplinary practices	x	Short	Site record on restraints, seclusions, school office referrals, detentions, suspensions
Staff turnover	x	Long	Site records on turnover rates
Attendance and engagement	x	Moderate	Site records on attendance
Academic success	x	Long	Scores on standardized tests

BASC3 Behavior Assessment Scale for Children-3rd (Reynolds and Kamphaus 2015), *BRIEF2* Behavior Rating Inventory of Executive Functions-2nd [6], *CAFAS* Child and Adolescent Functional Assessment Scale [10], *CBCL* Child Behavior Checklist [3], *PSI* Parenting Stress Index [1], *ITS* Index of Teaching Stress [2], *PCRI* Parent-Child Relationship Inventory (PCRI; [5])

[a]Variable: *T* target, *PO* proximal outcome, *DO* distal outcome

[b]Measures are available from Think:Kids; more information in Box 8.1 of this chapter

[c]Other measures are available either free or at a cost from the author or publisher

ficult to detect change due to the intervention, but without a comparison group, you may be less confident that change is due to CPS.

Finally, in addition to proximal and distal outcomes, you will want to be sure to measure the *targets* of your intervention. These are the specific indicators that your intervention is being delivered successfully. For instance, the targets of CPS include the skill with which the practitioners or educators are having Plan B conversations, or the degree to which the staff believe in the "skill-not-will" philosophy of CPS. If you don't observe positive change in your outcome variables, it will be important to know whether the intervention was delivered but didn't have the intended impact, or the intervention was not adequately delivered. By measuring these direct targets, you protect yourself against discarding an intervention that, if delivered better, could have accomplished the expected outcomes.

Step Two: Pick a Measurement Tool

For each variable of interest you identify, your next task will be to decide the best way to measure it. Some variables are best measured via independent observation (e.g., how many times in 1 h does a staff member use threats of consequences for misbehavior?). Other variables are best measured via questionnaires, also known as surveys (e.g., what is the quality of the relationship between parent and child in each family receiving treatment?). Still other variables can be captured through record reviews (e.g., how many suspensions were given in each month of the school year?).

In selecting a measurement tool, consider whether your variable of interest is subjective (based on the opinion or feelings of the reporter) or objective (an unbiased report or count). If the variable is objective, try to directly measure that factor whenever possible. For example, if you seek to track reductions in challenging behavior over time, you could ask staff to rate the severity of a client's challenging behavior, but this would be a subjective measure of an objective factor. You

are likely to get better objective information by directly measuring the frequency of the client's challenging behavior. You may choose to measure reductions in behavioral problems both ways; the concordance of the two types of measures (or lack thereof) would be interesting as well. For any subjective measure, consider who the best person is to do the reporting. Should the client complete a self-report? Should the parent be the reporter? A staff member? An independent observer? Your answer will be different depending on your variable of interest. You may even decide that multiple reporters on the same variable would be useful information to have. For example, if a parent reports improved parent-child relationship after introduction of CPS but the child reports no change, this may impact the delivery of the program moving forward.

If you determine that the best measurement tool to capture data about your variable of interest is a questionnaire, then you will need to find a valid and reliable questionnaire to use. It is not advisable to design your own questionnaire, because making sure it is valid and reliable can be a long and complicated process. There are many ways to find existing questionnaires, and many can be used at no cost (others need to be purchased from the developer or publisher, so be sure to check). One of the best ways to identify questionnaires is to look for academic articles that have been published about that variable in a similar population to yours and see whether the questionnaire used would work for you (Google Scholar at scholar.google.com is a good free way to search academic articles and read abstracts or sometimes even full articles). Online searches on your variable of interest and the words "survey," "questionnaire," or "measure" may also work.

Some variables of interest are specific to CPS or would require a combination of existing measures to obtain a comprehensive assessment. In these cases, Think:Kids has developed some questionnaires that are freely available on the Think:Kids website or by request. Brief descriptions and psychometric properties of those questionnaires are in Box 8.1.

Step Three: Plan Data Collection

There are yet more decisions as you plan data collection. First, you need to decide who your participants will be and how many you will need. Whom you choose as your participants will be guided by the question you are trying to answer – whose responses you want to assess and to whom you want to apply the findings. If you only have the time or financial resources to collect data from half of the staff members, selecting those who are most motivated would be biased, and conclusions drawn from your project would be overly optimistic. Similarly, selecting all boys while the organization serves both boys and girls may also be biased, in that results from your project may only be applicable to boys, and this would compromise the generalizability of your findings. Thus, to avoid selection bias, collect a random sample of all possible participants, such as all staff members or all of your clients. As a general rule, the more participants you have, the more confident you can be that your results are true. If this is a "pilot" project, completed simply to see whether you can detect any change at all, you may only need a sample with a small number of participants, perhaps between 10 and 30. But if this is your one chance to document outcomes in your organization, collect information on as many participants as you can with the resources you have.

Second, how and when will data be collected? If you are using a questionnaire, perhaps you will ask parents to complete it at intake and discharge. If you are collecting observations, consider who will be completing them. Note that if you are looking at change in *individuals* over time, then you will need to collect data from each individual at least twice, while if you are looking at change in your *organization* over time, then you need to collect data once prior to the introduction of CPS and at least once after CPS implementation is in full swing. Since evaluation of outcomes usually includes some measure of change, it is ideal to also measure the same variables of interest in a comparison group that is not exposed to CPS; this could be a comparable agency or another school in

your district. While not always possible to identify and measure outcomes in a comparison group, doing so will help you rule out the possibility that the change that occurred was due to some other factor besides the change in approach, including changes in staff or typical development in target participants.

Third, determine who will do the actual work. If you have a Quality Improvement (QI) or Research and Evaluation department, you have likely been working with them to design this project, and they will be doing the data collection and maintaining your database. If not, ensure that you or your staff have the bandwidth to conduct the project. We have also found it very useful to contact local graduate and undergraduate programs in psychology, education, and statistics, to involve volunteer interns willing to do the legwork on a project in order to get experience and mentorship in a real-world setting.

Finally, does your organization have any policies related to data collection and outcome evaluation? Is there an internal ethics board that reviews projects like these? Make sure you have necessary permissions from your organization and guardians (if relevant), particularly if collecting or using protected health information or audio/video recordings as part of your evaluation.

Step Four: Collect Data

The good news is that if you have done Step Three well, Step Four will likely be the easiest. The bad news is that it will likely take the longest. Additionally, you may want to consider the following question: Would you prefer to take twice as much time as planned or collect data on half as many participants as planned? Often one or the other will end up being the case! This is even more likely if you need to obtain consent from guardians or if you are conducting observations: two tasks that always take longer than planned. Tenacity is key however, because without this important step, you have no project.

If possible, avoid human error by using technology during data collection and data entry. One way to avoid human error is by conducting surveys with online tools like SurveyMonkey, Google Forms, or Research Electronic Data Capture (REDCap). Just be sure to think through the security requirements if you will be collecting protected health or educational information.

Step Five: Analyze Data

Once your data are collected, entered into a database, and checked for errors, it is time to analyze your data to see if the outcomes you measured indicate that your variable of interest changed in response to the introduction of CPS. There are two types of statistics: descriptive statistics, in which you report sums, averages, and ranges for the data you collected, and inferential statistics, which allow you to discuss whether your results were significant or reliable enough such that the results were unlikely to occur by chance alone. Depending on the size and purpose of your project, descriptive statistics may be all you need. For example, in one published evaluation of CPS, the number of physical restraints in an inpatient psychiatric unit decreased from 281 restraints in the 9 months prior to CPS to 1 restraint in the 15 months following CPS training [8]. If those were the descriptive statistics you were bringing to your stakeholders, it is unlikely that they will ask whether these results were statistically significant. In this case, descriptive statistics speak for themselves!

In other cases, you may want to conduct basic inferential statistical tests (such as t-tests, chi-squares, or analyses of variance) to see whether the changes you observed are stable enough to claim they may be due to the introduction of CPS. If you don't know how to do these types of tests, have no fear; there are options! First, there are many online resources for learning basic statistical analyses, including Khan Academy and Coursera. Second (and often more desirable), you can enlist help from someone else in your organi-

zation who knows how to do this type of work or a graduate student in your area (check local colleges for education, psychology, and statistics programs) who is willing to help in exchange for putting this consultation work on their resume.

There are a few common mistakes to watch out for, whether you are looking at descriptive or inferential results. First, beware of false positives, or the mistaken impression that CPS caused change in your variable of interest. As mentioned earlier, having a comparison group that is similar to your intervention site except that it did not receive CPS will help avoid false positives that are due to change occurring in response to other variables. Additionally, if you have measured how well individual staff implemented CPS (i.e., CPS integrity), then you should see that outcomes for staff with low integrity were not as strong as those with high integrity. This is another way to increase confidence in a positive result. And of course, unless you conducted a true experiment, you should always remember the cardinal rule of outcome evaluation: *correlation does not equal causation*. That is, you can rarely be positively sure that it was the intervention that *caused* a correlated outcome, only that the intervention and change in the outcome occurred at the same time. So be sure to think through any other explanation for why the change could have occurred.

Second, beware of false negatives, or the mistaken impression that your intervention was *not* associated with change in your variable of interest. This might occur if your measure wasn't sensitive enough or you didn't survey a large enough sample. Additionally, false negatives occur when there is another variable that dilutes the effect of your intervention. For instance, if for some reason CPS only resulted in positive outcomes for boys in your agency, but you measured and reported outcomes for a combined-sex sample, it is possible that the results for the girls would dilute the boys' results enough that their outcomes would look unchanged. How do you combat this problem? Be sure to measure all the variables (including sex, age, and other demographics) that you think may impact response to CPS, and look at change across

all subgroups before determining that your intervention did not significantly change a variable of interest.

Step Six: Present Your Results to the Right People

Even if your results are very interesting, they may not have the impact you are hoping for if you don't present the results to people that have the power to act in response to them. As you consider to whom you should present your results, ponder the following questions: What was the purpose of your evaluation? Who are your key stakeholders? Who can enact change if that is what is needed? Can results be used to encourage others? Could these results be published in order to inform a larger community of the results? (Video 8.1)

Be sure to target the level of your presentation correctly to the audience, providing information in a way that is neither too complicated nor too simple. Use graphs and other visuals liberally, because a picture really does paint a thousand words. But importantly, don't use visual tools to misrepresent or exaggerate the outcomes, and be honest about limitations that may exist in your methods or results.

What if your results are "negative?" That is, what if your results indicate that CPS did not have the effects you were hoping for? If you believe it is a true negative, and not a false-negative result due to an error in the evaluation or analyses (see Step Five for more information on this), it is just as important to present these results to the right people! However, before you do so, consider some possible reasons why change did not occur, and be ready to present those as well. Were staff using CPS with high integrity? Could there be something particular to your population or organization that made standard CPS not as impactful as expected? Are there other variables that seem to have changed instead of your identified variables of interest and that are worthy of their own evaluation? These explanations will help the leaders in your organization, as well as your CPS trainers and coaches, decide how to move forward to improve CPS imple-

mentation and to maximize the chance of observing your intended outcomes.

Evaluation Case Example

Now let's turn to an example of a program like yours that has decided to evaluate outcomes related to CPS. We will assume that the fictional Sunrise Program has an implementation team overseeing the adoption of CPS, supervisors monitoring and coaching staffs' use of CPS in practice, and staff that will be learning to use CPS with children. Also, we will assume that Sunrise Program will be using a system of self-report, documentation review, and coaching to assess and monitor integrity of CPS (see Chap. 7 for details), so that they can confidently determine whether any outcomes can be attributed to CPS.

The first step is to decide what to measure. The CPS implementation team considers both the goals of implementing CPS and the logistics (such as practical timeline and how many staff/clients can be recruited). Together they decide to measure outcomes over the first 6 months of implementing CPS. In particular, they want to make sure staff's adherence to the CPS philosophy of "skill not will" is increasing and that there are reductions in youths' challenging behaviors. They are also concerned about the high number of restraints in the last 2 years and would like to see this improve. The implementation team identifies three variables of interest: staff's philosophy, youths' challenging behavior, and number of restraints. This list includes a mix of target and outcome variables.

Next, they will pick their measurement tools. They decide to use the CPS-AIM, available from Think:Kids, to measure staffs' adherence to CPS philosophy. They will track the frequency of youths' challenging behavior with a checklist of frequently observed challenging behaviors (e.g., physical aggression, verbal aggression, non-compliance with spoken request) that staff can complete at the end of every shift. Since they are interested in seeing whether the frequency of chal-

lenging behaviors decreases across all youth in their care, they don't need to collect this information for every youth, but rather they can use a single behavior checklist to capture any challenging behaviors observed by any child during the shift. The staff are pleased with this solution, because the last thing they want is a lot more paperwork! Finally, all restraints are logged in the electronic health record system as critical incidents, so the Sunrise staff don't need to do anything different to make sure this information is collected. So far so good!

Decisions related to the third step, planning data collection, are directly shaped by the first two steps. Sunrise Program wants to measure their staff's mind-set shift and the youths' behavioral changes, so their participants will include both staff members and clients. With the questions above in mind, the implementation team at Sunrise Program decides to select a random sample of half of their staff that are about to receive CPS training and measure "skill-not-will" mind-set prior to and immediately after CPS training and then 6 months later to check whether the philosophy is sustained. Each of the staff selected will also complete the checklist of challenging behaviors daily for 2 weeks before CPS training and then for the 6 months afterward. They talk to the administrator of a local graduate program in psychology and enlist the help of a graduate student who is looking for real-world research experience. This student will make sure the data collection tools are being completed and will also pull the records for critical incidents from the electronic health records and add this information to the data spreadsheet. The members of the CPS implementation team are hopeful that their staff would be more adherent to "skill-not-will" mind-set after training and, even more so 6 months later, after continuous supervision and coaching. They also expect to see fewer incidents of challenging behavior over time and, consequently, a decreasing rate of restraints over the 6-month period.

Step Four is about the data collection itself, to ensure that data collection goes as planned. Since the Sunrise Program has a policy that all subjects of research must provide informed consent whether or not identifiable information is

being collected from them, the implementation team asks for consent from both staff and the guardians of the youth who will be observed before any data collection begins. Then, to reduce human error and because identifiable health information would not be collected, all responses are collected using a freely available online survey tool. The team creates an online version of the CPS-AIM on this survey tool, sends the links to all participating staff via email, and asks them to complete the survey prior to and immediately after the CPS training. They also create separate survey pages for each staff to enter frequency of challenging behaviors that they observe every day for 6 months. Finally, 6 months post-CPS training, they email the participating staff links to the CPS-AIM online survey again, for another assessment of staff's mindset. In practice, it is common that staff may forget to enter certain data at expected time. Therefore, the graduate student intern reminds the staff of data entry and keeps track of each staff's data completion status every week.

With all the efforts above, 6 months into the project, Sunrise Program has the data ready for Step Five – data analysis. Since a few members of the CPS implementation team at the Sunrise Program are competent and confident in conducting descriptive analyses (such as calculating mean values for all variables and graphing the outcome variables against factors that may impact the outcomes), they conduct these basic analyses before asking their graduate intern to complete any inferential analyses. Descriptive statistics provide a quick and intuitive picture of results and help the team to generate ideas of what to test with inferential statistics. First, they provide tables containing information about the sample (staff and clients) in terms of their age, gender, race, and years of employment (for staff) or length of treatment (for clients). They calculate the mean values and range for each of the demographics and find that this sample of staff is representative of all staff in their program in terms of their demographics. Then they plot the scores of staff's adherence to CPS philosophy on the three timepoints (prior to, immediately after, and 6 months after CPS training) and notice a

steady upward slope that may suggest reliable changes of staff's mind-set. They also graph the frequency of clients' behavioral problems from week to week over the 6-month period and notice a clear and steady trend of reduction in youths' challenging behaviors across time. Finally, they generate a similar graph for the number of restraints in the program over the 6 months and find a similar reduction over time. The team is optimistic; however, they turn the data over to their graduate intern to complete inferential statistics in order to check (1) whether the changes they graphed are statistically reliable/significant; (2) whether these changes are related to CPS or some other factors, by evaluating outcomes in relation to staffs' CPS integrity (as detailed in Chap. 7); and (3) whether the observed changes differ by staff's or clients' demographics, such as gender and race. And we are fortunate that this example is a fictional one: nearly all of the results are significant, correlated with CPS integrity, and relevant for all demographic groups!

For the sixth step, the CPS implementation team at Sunrise Program wants to share the findings with senior leadership, who can enact any suggested changes, as well as the staff and coaches who are providing the service. In order to avoid overwhelming the audience, they present their graphs and supplement the observable trends with information on statistical significance. They also focus on implications of the results, in terms of changes for staff (such as documenting their CPS integrity as a regular weekly routine), changes for coaches, and changes for the whole program moving forward, so leadership can make informed and actionable decisions.

Advancing Our Understanding of CPS

While most individuals reading this chapter are invested in conducting outcome evaluations solely for their own quality assurance purposes, some may also be interested in advancing the understanding of the CPS approach more generally; to contribute to the science of the approach itself. Systematic research on CPS is important, because it is through this

research on the approach that we can inform continued model development and knowledge about targeting CPS appropriately in the pursuit of reduced rates of externalizing disorders and improved functioning in those who exhibit lagging neurocognitive skills: outcomes that promise great benefits for individuals, their caregivers, and society at large. For those readers, we present information on three areas that are ripe for research on CPS.

Research with Comparison Groups

As mentioned earlier, evaluations that examine change from before to after CPS implementation are limited in their ability to rule out other factors that may have contributed to the change. These other factors are called *confounding variables*. If you are measuring change over time in your *organization* before and after the introduction of CPS, some possible confounding variables could be changes in staff or changes in the local or national economy that impact the severity of challenging behaviors exhibited by the individuals in your agency or educational setting. Alternatively, if you are measuring change over time in *individuals* before and after they are exposed to CPS, one important confounding variable is the normal growth and development that occurs over time. In outcome evaluation projects that are designed for the purpose of quality assurance in a single setting, it is often not possible to rule out these factors, and so we recognize that limitation when we discuss our results. However, in research studies that purport to contribute to an improved and generalizable understanding of the approach itself, it is even more important to rule out confounding variables. Thus, those conducting research on CPS should prioritize the identification of comparison groups within or outside the target organization.

There are very good arguments against using randomized controlled trials that pit practices against one another in order to study the effectiveness of interventions like CPS (e.g., see [20]); however, the use of waitlist control groups can be particularly helpful to ensure that improvements in skill

development and symptoms in a CPS group are beyond what would be expected with the passing of time and normal human development. Additionally, within-organization comparison groups (e.g., one teaching "team" versus another or one clinical "unit" versus another) can protect against false positives due to organizational changes. Since randomization in inpatient, residential, and educational settings can be particularly difficult, quasi-experimental designs (comparison of groups in which members are not randomized) are often all that is possible.

Long-Term Follow-Up

While studies of within-subjects change due to CPS typically have included measurement before and after exposure to the approach, very few have included additional measurement after the treatment ends (for exceptions, see [7, 11]). Although we would expect long-lasting change since two of the hypothesized mechanisms of CPS include neurocognitive skill growth and changes in caregiver perspective, there is little empirical data regarding how long the positive effects of CPS last after an individual has been discharged from treatment. Additionally, evidence of sustained change has become one of the common criteria for being designated an evidence-based practice. Thus, a priority for research in the coming years will be long-term follow-up of individuals exposed to CPS, including measurement of symptoms and attitudes of caregivers.

Moderators and Mediators

Most existing research on CPS has focused on measurement of outcomes that can be affected through the use of the approach. However, these studies of mean change across scores of children and caregivers are limited in their ability to ensure that any one individual is likely to be helped by CPS. As we progress through the second decade of CPS research, it will be necessary to better balance the study of

behavioral/disciplinary outcomes with study of factors that also help us better understand *for whom* CPS works (moderators) and *how* (mediators). These studies can happen either in conjunction with, or separate from, more traditional studies on outcomes.

Future investigations might explore whether there are moderators, such as age, diagnosis, socioeconomic status, cultural background, or parenting style, that predict the success of CPS in reducing challenging behavior. Some of the questions that we may want to answer with these studies include: What caregiver factors make CPS more or less impactful? Is CPS more or less effective when used with individuals with particular skills profiles? Are outcomes different for individuals for whom cognitive skill deficits arise from chronic trauma versus genetic temperament? Can we improve outcomes even more through supplementing intervention with adjunct services? With results from these investigations, CPS interventions can be modified to better target treatment to individuals that it will benefit the most and will allow us to allocate resources to identify other approaches that work better for others.

To date, we have a number of hypotheses regarding how and why CPS works, none of which have received adequate research attention. We presume that reductions in disciplinary action such as suspensions, restraints, and seclusions follow decreased oppositional behaviors. However, it is possible that staff trained in CPS are less likely to enact restrictive interventions in response to challenging behavior once they are trained to view such behavior as a product of lagging skills as opposed to oppositionality. Similarly, we presume that reductions in oppositional behavior result from improvements in neurocognitive skills targeted by CPS: emotion regulation, attention and working memory, cognitive flexibility, language/communication, and social skills. But it is also possible that individuals exposed to CPS feel more understood and are more likely to meet the expectations of their newly empathic caregivers. All these should be the focus of future research.

Conclusion

In sum, every organization or system that is newly implementing CPS (or implementing any new program or practice!) should determine the outcomes they seek to affect and make a plan to evaluate change in those outcomes. There are simple ways to evaluate outcomes even with scarce resources, and knowing whether CPS is working, how well it is working, and for whom it is working will provide your organization with information needed to maximize your investment in CPS training and coaching.

Much is already known about the outcomes we can expect to change by implementing CPS, and your evaluation projects can benefit from that existing knowledge. However, our understanding of the CPS approach can continue to grow with more research using comparison groups, long-term follow-up, and exploration of mediators and moderators. Those who have the ability to conduct projects that address these gaps in the evidence base can help us increase our confidence in, and understanding of, the CPS approach.

Box 8.1 Recommended Think:Kids Measures

Thinking Skills Inventory (TSI)

Could this individual's trouble with problem solving be due to trouble expressing their feelings and concerns using language? Are your clients getting better at regulating their emotions when frustrated? Thinking skills, including cognitive flexibility, attention and working memory, language and communication, social thinking, and emotion regulation, are important for adaptive behavior, and these skills are trained and practiced via the Plan B conversations in CPS. The Thinking Skills Inventory (TSI) assesses these thinking skills. The TSI is a 26-item, caregiver-report questionnaire that can be completed in 5 min. All items have a 5-point response

format, ranging from 1 = consistent strength, 2 = sometimes a strength, 3 = depends, and 4 = sometimes difficult to 5 = consistently difficult. Items are arranged in five scales that reflect strength or difficulty in five domains of thinking skills, including attention and working memory (seven items), language and communication (four items), emotion regulation (four items), cognitive flexibility (four items), and social thinking (seven items), with higher scores indicating more difficulty with the corresponding skills. The reliability and validity of the TSI have been examined using a clinical sample of 384 children ages 5–18. The internal consistency of each subscale ranged from α = 0.84 to 0.91. Validity of the TSI was examined by correlating scores of the TSI to an array of commonly used measures of the corresponding traits. Scales of the TSI were moderately to strongly correlated with the existing caregiver-report measures of the same skills, with correlations ranging from 0.54 to 0.74 [21].

Collaborative Problem Solving Adherence and Impact Measures (CPS-AIM)

When parents, educators, or clinical staff learn CPS, you might expect certain changes in their attitudes and behaviors over time. For instance, you may expect that they will increasingly adhere to the "skill-not-will" philosophy in CPS and they may perceive themselves as more competent at handling challenging behavior, feel less burnout, and perceive an improved relationship with the individuals in their care. These variables of interest are targeted in the CPS-AIM. There are three CPS-AIM versions: for parents, educators, and staff in clinical systems. All items on the CPS-AIM are rated on a 7-point scale, from strongly disagree to strongly agree. The three versions differ in the number of items and content and are outlined below.

- CPS-AIM-Parent (CPS-AIM-P) includes 20 items. It covers three core scales and three practice-related scales. The three core scales are hypothesized to improve when using CPS: (1) philosophy, caregivers' adherence to the "skill-not-will" mind-set that children's behavior arises from skill deficits rather than poor motivation (four items), with higher scores indicating more adherence; (2) prediction, caregivers' ability to better predict behavioral problems as occurring when situational demands exceed the child's skills (three items), with higher scores representing better skills at predicting challenging behavior; and (3) parental stress, the degree of perceived parenting stress (four items), with higher scores indicating less stress. Psychometric properties of the three core scales of CPS-AIM-P were estimated based on a sample of 202 parents attending an 8-session parent group training to learn the CPS approach. These groups were offered at Think:Kids for families with 3- to 18-year-old children exhibiting significant behavioral symptoms. The internal consistency was $\alpha = 0.87, 0.82$, and 0.89, for philosophy, prediction, and parental stress, respectively. The three optional practice-related scales of the CPS-AIM-P include three items in each scale to track caregivers' use of CPS practices in managing their child's unmet expectations at home. The three practice-related scales focus on the three CPS "plans," or ways a parent may react to their child's unmet expectations and misbehavior, including Plan A, Plan B, and Plan C. The practice-related scales reflect how often caregivers practice Plan A, Plan B, and Plan C at home.
- CPS-AIM-Educators (CPS-AIM-E) includes 25 items, grouped into 4 scales, including (1) philosophy, assessing educators' adherence to the "skill-not-will" mind-set of CPS that students' behavior arise from

skill deficits rather than poor motivation (7 items), with higher scores indicating more adherence; (2) perceived positive impact, examining the degree to which educators believe they are positively impacting their students' lives (9 items), with higher scores suggesting more positive feelings; (3) perceived burnout, measuring the degree of perceived stress and burnout (4 items), with higher scores indicating more burnout; and (4) perceived CPS competence, evaluating educators' perceived competence of CPS skills (5 items). This scale is only used if educators have been using CPS for some time, and higher scores on this scale mean higher confidence in their CPS skills as perceived by the educators. Psychometric properties of CPS-AIM-E (excluding the perceived CPS competence scale due to lack of CPS practice) were estimated based on a sample of 301 educators. The internal consistency of the scales was 0.81, 0.86, and 0.78, for philosophy, perceived positive impact, and perceived burnout scale, respectively.

- CPS-AIM-Systems (CPS-AIM-S) is appropriate for staff in clinical systems such as inpatient units and residential treatment centers. This survey has 24 items, grouped into 4 scales that are very similar to CPS-AIM-E, including (1) philosophy, staff's adherence to the "skill-not-will" mind-set (7 items), with higher scores indicating more adherence; (2) perceived positive impact, staff's self-report on how much they believe they are positively impacting their clients' life (7 items), with higher scores representing more positive feelings; (3) burnout, the degree of perceived burnout and stress (5 items), with higher ratings indicating more burnout feelings; and (4) perceived CPS competence (5 items), with higher scores representing more perceived efficacy in using CPS. CPS-AIM-S was evaluated using a sample of 666

direct care staff in various clinical systems, with and without exposure to CPS. The internal consistency was 0.73, 0.86, 0.75, and 0.72, for philosophy, perceived positive impact, perceived burnout, and perceived CPS competence scale, respectively.

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Chapter 9
Using CPS to Foster Employee Success

Michael J. G. Hone

After facilitating the implementation of Collaborative Problem Solving (CPS) in multiple organizations for a number of years, it soon became apparent that the approach was also applicable in the context of managing day-to-day operations in a workplace environment. In each setting, we had been asking direct care staff to reconsider and shift their view on why children have difficulty managing their behavior and following through with expectations. The natural next step was to apply the approach to these same staff, shifting our thinking about why employees might be having difficulty meeting expectations.

Managing staff performance in the workplace can have significant costs – in terms of both financial cost and morale. Financial costs may be incurred when consulting with a human resource expert, obtaining legal advice, and, in more serious cases, costs of court or arbitration if the disciplined

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employee challenges the employer's decision. In a unionized environment, disciplinary actions are often subject to grievance procedures that result in financial and human resource costs to the employer. Then if an employee is terminated, there are often onboarding costs associated with bringing in replacement employees, including training costs and dedicated time for the new employee to acquaint them to the organization. Costs to morale can be equally important. Employers may not be able to justify a disciplinary decision to other staff, and in turn the disciplined employee can be in a position of messenger with their colleagues. Similarly, when an employer takes frequent disciplinary action, this can result in other employees beginning to wonder if they will be next, invariably impacting their sense of competence and security. When disciplinary issues are not handled well, the fallout may include high staff turnover, internal conflict, low productivity, and negative corporate image [1]. Taking into consideration these costs, it leads one to question the effectiveness of traditional workplace discipline in terms of improving performance, as well as whether there is a less costly option that enables employees to do better.

In this chapter, I describe the ways in which the Collaborative Problem Solving approach provides a more effective option to performance management and how CPS can significantly reduce financial and morale costs. First, I will discuss how the CPS philosophy applies to the workplace, and then I will discuss the process of setting clear and realistic expectations at work. Next, I will discuss the applicability of the CPS Assessment and Planning Tool (CPS-APT) on the job, and finally I will discuss how to use Plans A, B, and C in managing staff performance and what the Plans achieve when implemented with fidelity.

The CPS Philosophy at Work

As discussed in Chap. 1, inherent in CPS is the philosophy that "people do well if they can," which stands in harsh contrast to the conventional wisdom that people do well if they

want to badly enough. The CPS philosophy challenges the notion that *misbehavior*, or lack of compliance, is purposeful and goal oriented. Instead, the philosophy suggests that non-compliant individuals are struggling with lagging cognitive skills that get in the way of being able to meet the particular expectations in front of them. These cognitive skills, which include language and communication, attention and working memory, emotion and self-regulation, cognitive flexibility, and social thinking skills, are crucial to effective functioning in all types of settings. These skills are relevant to misbehaving children or individuals in clinical distress but are equally relevant for adults in relationships and in the workplace.

A key shift in thinking is required in order to use CPS as a framework for understanding staff behavior and unmet expectations in the workplace. This shift in thinking is similar to the shift in thinking required when using CPS as an approach to understand and work with non-compliant children and clinical populations. In particular, the required shift includes viewing unmet expectations in the workplace as driven not by purposeful or escape/avoidant behavior but rather as a result of a skill deficit. Employers who have made this shift in thinking view their employees as doing well if they *can* rather than if they *want to*. What follows is a shift away from using traditional disciplinary approaches to increase compliance in the workplace, akin to the shift away from using traditional disciplinary approaches to increase compliance in children that are exhibiting challenging behaviors.

Setting Expectations at Work

One key factor for the success of CPS, whether working with children, clinical populations, or adults in the workplace, is ensuring that expectations are clear and realistic. In the workplace, this means making sure that the expectations of the employee are outlined concretely and are realistic in the context of the skill set that the employee has. Outlining an expectation clearly means making sure the individual

employee is aware of the "who, what, when, why, and how" related to the expectation. When expectations are placed on an employee, the employer needs to provide clarity related to who is responsible for the particular expectation, what needs to be done, by when it must be done, why it is necessary, and how it is to be done (if determining how is not the job of the employee). Being clear about these components of an expectation will increase the likelihood that the expectation will be met the way the employer intended. For example, a typical expectation in a mental health setting is that a treatment plan is developed for each child receiving service. In order to facilitate this expectation being met to the employer's satisfaction, an employee would do best to understand the following components of the expectation:

1. **What needs to be done?** A treatment plan that summarizes the goals that will be worked on during the course of treatment.
2. **Who will contribute?** The staff member who completed the intake and any staff who have worked directly with the family may have input; the lead clinician is responsible for compiling information into the formal plan.
3. **When should it be complete?** First treatment plan is to be completed within 30 days of admission to a particular service.
4. **Why it is necessary?** Treatment plans provide a guide for the family during and following service delivery so as to guide and measure the gains of treatment during and after services.
5. **How it is to be done?** A treatment plan is to be developed in partnership with the parent, child, and any other relevant actors in the child's life. Goals should be measurable and achievable with a timeline specific to each goal. Each goal should build on the strengths of the child and family and should resonate with the child and parent.

The more detail that can be provided for how the expectation should be met, the greater likelihood of an employee's success. For instance, instructions for how the employee can

develop a measurable goal, and more guidance related to what an achievable goal looks like when completed, would lead to a better chance that treatment plans would be submitted with satisfactory goals. Providing this level of detail for each expectation may take additional time for a supervisor but may take significantly less time than having to manage an employee who is consistently failing to meet expectations.

The second requirement of an expectation is that it is realistic in the context of the employee's skill set. For example, expecting a mental health clinician to repair a computer will likely not be successful unless that clinician has been trained on computer repair or has learned how to repair computers on his or her own. Thus, setting computer repair as an expectation would not be realistic and thus likely not feasible on the part of that employee. Similarly, some types of administrative work, supervisory tasks, and facility management may be outside the skill sets of certain staff, despite how often you may call on your staff to cover these types of activities. By knowing your staffs' skills and limitations, then only setting realistic expectations, you are setting yourself, and your employees, up for success.

Taken together, an employer's first step if expectations aren't being met is to ensure that the expectations are clear and realistic and, if not, make them so. This eliminates a good number of instances of "non-compliance" that in fact aren't non-compliance at all.

Assessment of Lagging Skills

If you have set clear and realistic expectations, but your employee is still not meeting those expectations, then what can you do? The CPS Assessment and Planning Tool (CPS-APT, available at www.thinkkids.org) can be used to better understand potential contributors to unmet expectations. This tool is grounded in the neurosciences and includes a checklist of skill deficits that can contribute to common challenges that children – and adults – have in day-to-day functioning. As noted

earlier these skills fall into five categories: language and communication, attention and working memory, emotion and self-regulation, cognitive flexibility, and social thinking skills. All of these skills are critical in a work environment in order to successfully meet expectations, no matter what role the individual has within that organization.

Language and communication skills are integral to being able to function in the workplace. These skills include understanding and processing spoken words with adequate speed; understanding and following conversations well enough to respond; expressing concerns, needs, or thoughts in words; and being able to tell someone what is bothering you. Without these skills, a number of errors related to workplace expectations could easily occur. An employee who struggles with these skills could potentially have difficulty understanding what is expected of him/her, may not be able to follow conversations about expectations adequately, and also might not know how best to ask for help when he/she becomes confused with what is expected.

Attention and working memory skills are also instrumental to workplace success. Sticking with tasks that require sustained attention; doing things in a logical sequence or order; keeping track of time; assessing how long a task will take; being able to reflect on multiple thoughts and ideas at the same time; maintaining focus and concentration; ignoring irrelevant noises, people, or other stimuli; tuning things out when necessary; and considering a range of solutions to a problem are all critical to being able to meet job requirements. For instance, being able to carry a caseload of multiple clients in a mental health setting with a variety of deadlines for paperwork related to each client requires the capacity to focus attention on various tasks, accurately predicting how long a particular task(s) will take and being able to reflect on multiple thoughts and ideas at the same time. Without skills in this area, the employee will invariably fail to meet some of their expectations.

Emotion and self-regulation skills include being able to manage emotional response to frustration so as to think

rationally, managing irritability well enough to respond appropriately to others, managing anxiety well enough to respond adaptively, being able to think before responding, considering the likely outcomes or consequences of actions, and adjusting his/her arousal level to meet the demands of a situation. Again, these are crucial skills needed in most work environments. For example, in a position in which an employee has contact with clients or consumers, that employee needs to be able to manage irritability and frustration, especially when the consumer is agitated. If these skills are lagging, an employee will likely not be able to think before responding or may not adjust his or her arousal level to meet the demand of the particular situation, thus failing to meet the expectations of the job.

Cognitive flexibility skills entail handling transitions; shifting easily from one task to another; seeing "shades of gray" rather than thinking only in "black-and-white"; thinking hypothetically; envisioning different possibilities; handling deviations from rules, routines, and original plans; handling unpredictability, ambiguity, uncertainty, and novelty; shifting away from an original idea, solution, or plan; taking into account situational factors that may mean a change in plans; interpreting information accurately; and avoiding overgeneralizing or personalizing. In most children's mental health, educational, and correctional settings, deviating from the routines and original plan is commonplace and an expected part of the job. An employee who struggles with flexibility will have a very challenging time managing expectations of that work environment. In particular, the unpredictability would result in a number of challenges for the employee, potentially resulting in a lack of capacity to move forward in an adaptive way.

Social thinking skills are also very important in a workplace. These skills include paying attention to verbal and nonverbal social cues; accurately interpreting nonverbal social cues; knowing how to start conversations, enter groups, and connect with others appropriately; seeking attention in appropriate ways; understanding how his or her behavior

affects other people; understanding how he or she is coming across or being perceived by others; and being able to empathize with others and appreciate others' perspectives or points of view. An employee who struggles with these skills invariably will struggle in the workplace. Take, for example, an employee, who is unable to understand nonverbal social cues, has difficulty connecting with others, and is not able to see how she is coming across or is perceived by others. This individual will have difficulty connecting both with clients/consumers and with other staff, may feel like an outcast in the workplace, and would likely find all interactions (including those with the employer) to be confusing and challenging.

Understanding these skills and the interplay they have with functioning in a work environment provides employers with a more compassionate view of employees who are struggling to meet their job expectations. If your employee is consistently having a hard time meeting expectations, review the CPS-APT, and see if you can't take some educated guesses about what skills struggles may be getting in the way for that employee. Then, when you truly believe that *employees do well if they can* and you have some hypotheses about what is getting in the way, you'll find yourself wondering what employers can do to help employees who have lagging skills meet expectations and thus ensure the success of the organization. The next section describes how a CPS-consistent option can do exactly that and perhaps provide some other benefits along the way.

Traditional Workplace Discipline

In most settings, the traditional approach to addressing employees who have not met the expectations of an employment contract includes progressive discipline as a means to facilitate having those expectations met. This typically involves clarifying the expectations (often in writing) and then systematically addressing failure to meet expectations by applying incrementally heavier doses of punishment.

This could include verbal warnings, written warnings, suspensions with and without pay, and ultimately termination of the employment contract. While, in the best case, this process could garner success by serving to clarify expectations that were not previously clear, in the worst case, progressive discipline is a punitive and frustrating process for an employee who is lacking critical neurocognitive skills that may be needed to adequately get the job done. In fact, traditional progressive discipline has been referred to as "America's criminal justice system brought into the workplace," by a leading employment consultant, who then goes on to say, "The basic premise of this traditional discipline system is that crime must be followed by punishment. With its constant quest to 'make the punishment fit the crime,' it attempts to provide an awkward mix of retribution and rehabilitation" [4].

Traditional progressive discipline in the workplace is akin to applying traditional operant strategies with children in order to achieve compliance; heavier doses of discipline are applied in an effort to curb undesirable behaviors or motivate the individual to behave differently. The assumption inherent in both these situations is that the failure to meet expectations is purposeful and goal oriented on the part of the child or employee. If an employee lacks motivation to behave better, then the employer should apply consequences to motivate the employee to do better. But in our experience, it is very rare to find an employee that doesn't wish to do better and to meet their employer's expectations. When employees aren't doing well, it's usually skill, not will, that is to blame. Motivational approaches such as progressive discipline, then, are misaligned with the source of the problem. And considering the significant effects on finances and morale mentioned previously, using any punitive approach with underperforming employees represents a missed opportunity on the part of the employer to save costs by investing time in building the lagging skills in that particular individual (or accommodating in a matter that enables the expectation to be met) while keeping the employee in the position and the morale in the

workplace positive. Using CPS to manage performance in the workplace does exactly this; it goes beyond traditional progressive discipline to help an employer understand all the options available when responding to unmet expectations – just like when we are working with challenging youth, these options are still Plan A, Plan B, and Plan C. Before I outline what each of these Plans looks like in the workplace, let's review what goals we should have when we respond to unmet expectations at work.

The Goals of Successful Workplace Discipline

What does successful workplace discipline accomplish? First and foremost, we hope that our disciplinary approach works to get our expectations, or job requirements, met. There are likely to be demands from funders, from regulators, and/or from the consumers of the services offered by the organization, and in order to meet the needs of these stakeholders, getting expectations met is instrumental in an organization's continued viability. Importantly, successfully getting those expectations met does not just mean doing so with a short-term fix. Success occurs only when we ensure that problems are solved durably, with solutions that enable the employee to meet requirements on an ongoing basis.

Second, a good disciplinary approach will create, or restore, a helping relationship between employer and employee. Often, the relationship between an underperforming employee and a supervisor can be strained, and for the sake of improving morale and sustaining a generally pleasant workplace, part of addressing unmet expectations should be making sure the relationship between employer and employee is a positive and helpful one.

Our third goal should be to build any lagging skills that may be getting in the way of the employee's ability to meet the expectations. These may be specific job-related skills, such as how to use particular therapeutic approaches or job-related software, or they may be more general cognitive skills,

such as organizing tasks related to a large caseload or maintaining emotional control when working with collateral providers.

Fourth, when we are addressing unmet expectations in the workplace, we must also eliminate any undesirable behaviors that the employee is engaging in. Undesirable behavior in the workplace comes in many forms, for example, work avoidance, taking unauthorized overtime to get the job done, passing work to a less qualified staff member, exploding at managers or colleagues, or, in extreme cases, lying, falsifying, or taking credit for others' work. These behaviors often represent an employee's best attempts (albeit not adaptive ones) to cope when they cannot meet the expectations that have been set and when they are faced with, or fear, a negative response on the part of the employer. These undesirable behaviors can be damaging to everyone associated with the organization, and thus any good disciplinary response to unmet expectations should also put a stop to these undesirable behaviors.

Finally, our fifth goal is to support the intrinsic motivation of our employees. The greatest asset to an organization is an employee one who is intrinsically motivated, or internally driven, for success. These employees often work harder, are more collegial, and are happier at work.

We will keep these five goals in mind as we review the different options for responding when faced with an underperforming employee. For each of these options (Plans A, B, and C), I will describe what the plan looks like in the workplace, so we can better understand the impact and implications.

Plan A

Plan A is one of the three plans in the Collaborative Problem Solving approach. When working with children or clinical populations, this plan is primarily about getting the caregiver's expectations met through imposition of will and can include telling someone "you must" or "if you do, you will get

The Five Goals of Successful Workplace Discipline	Plan A	Plan B	Plan C
Attempt to get job requirements met (durably)	×	×	
Create or restore a helping relationship between employer and employee		×	
Build lagging skills		×	
Eliminate undesirable behaviors		×	×
Support intrinsic motivation for success		×	

FIGURE 9.1 The five goals of successful workplace discipline

[insert reward]." In the workplace, this means getting the employer's expectation met through insistence, rewards, or threats of punishment. Progressive discipline in the workplace, as described earlier, is a common Plan A approach, as is any zero-tolerance policy.

As can be seen in Fig. 9.1, Plan A does attempt to get job requirements met and can sometimes be successful at getting them met. However, because after Plan A, an employee understands the reason for their performance as due to external, rather than internal, reasons, even when the employee performs successfully, he or she can actually become demotivated, bored, alienated, and reactive rather than proactive in the future [3]. Additionally, remember that success occurs only when problems are solved durably, with solutions that enable the employee to meet requirements on an ongoing basis. Solving a problem with a short-term fix or incentive that doesn't work in the long term is not cost-effective and often creates more frustration for supervisors, the underperforming employee, and his or her coworkers, who may be left picking up the slack. Additionally, if the employee does not have the skills necessary (specific or general) to meet the job requirements, the use of imposition of will, incentives, or threats of punishment will not only be ineffective in getting the expectations met, but it will cause the employee to become increasingly frustrated, at the risk of meeting the other four goals.

Considering these costs, a Plan A approach to managing underperforming employees should be used sparingly. There may be occasions at work where Plan A is inevitable and perhaps even necessary, for example, in circumstances where fraudulent or unethical behavior has occurred, and thus the risk of reoccurrence is too great. However, workplaces run by authoritarian leaders have poorer commitment and productivity and greater worker burnout [2], all of which can lead to generally unpleasant, unmotivated employees and high turnover. Thus, it is not only more humane but also cost-effective for managers to be seen as helpful and collaborative. Thus, whenever possible (and when termination has not occurred), the use of Plan A in the short term should be followed soon after with the use of Plan B. This will allow the employer and the employee to explore solutions that will help ensure that the circumstances do not occur again.

In sum, while Plan A may meet the goal of attempting to get the job requirement met durably, it doesn't guarantee it, may backfire, and does not address any of the other goals we outlined as important for successful workplace discipline (see Fig. 9.1). Plan A is clearly not conducive to good morale and a positive work environment and should be used sparingly.

Plan C

Plan C is another option for responding to unmet expectations. This plan entails dropping an expectation in the short-term. For example, when working with an employee who is having difficulty with a number of expectations, a decision may be made to allow for one or two of those expectations to be dropped while others are addressed. If the employee is engaging in undesirable behaviors in response to not being able to meet expectations (e.g., lying, taking unauthorized overtime to get the work done, exploding at managers or peers), letting the employee know that the employer is dropping the expectation will reduce those behaviors and give employer and employee time to work together on a plan for

success. As illustrated in Fig. 9.1, however, reducing undesirable behavior is the only one of our stated goals that is met by Plan C. An expectation that is dropped is unlikely to be met, dropping the requirement doesn't build any of the skills the employee needs to meet it, and while it doesn't hurt the employee's relationship with the employer or their intrinsic motivation, Plan C alone does nothing to support either. Thus, Plan C is a useful short-term solution, but expectations that have been addressed with Plan C can and should be addressed with Plan B eventually.

Plan B

The third option for responding to unmet expectations is Plan B or solving the problem collaboratively with the underperforming employee. Plan B provides the employer with an opportunity to understand the employee's perspective about what is getting in the way of a particular expectation being met. This is followed by the employer sharing their concern or perspective and then by both employer and employee working together to find a mutually satisfactory solution to address both sets of concerns or perspectives.

By using Plan B with underperforming employees, we are first and foremost attempting to get the job requirements met. Rather than doing so through imposition of will, insistence, or incentives, however, this is done collaboratively and flexibly, sometimes accommodating particular needs of the employee (e.g., for time, training, or additional support), which increases the chance that the solution will be durable over the long term and eliminates any undesirable behaviors that were being used in response. In inquiring about, and then addressing, the employee's needs, the employer has the opportunity to be seen as an empathic helper, someone interested in supporting the success of his or her employees. This is especially useful when the relationship between the supervisor and the employee has been strained as a result of having used one of the traditional mechanisms of progressive disci-

pline for previously unmet expectations. Also important in the Plan B process is the chance to build lagging skills. Not only can Collaborative Problem Solving reveal the need for additional training to build specific job skills, but as described in detail in Chap. 2, many repetitions of Plan B function to increase capacity in general cognitive skills like attention and working memory, cognitive flexibility, emotion and self-regulation, language and communication, and social thinking skills. Moreover, science tells us now that the adult brain is much more plastic than originally thought and that contrary to our prior understanding, the adult brain can and does develop, adapt, and change [5, p. 29] (Video 9.1).

Thus, as outlined above, Plan B addresses the first four of the goals of successful workplace discipline (see Fig. 9.1), by attempting to get the job requirements met durably, creating or restoring a helping relationship, building lagging skills, and eliminating undesirable behaviors. Does it also build intrinsic motivation to succeed? The work of Deci and Ryan [3] and Daniel Pink [6] has contributed to our understanding of factors that are proven to increase employees' intrinsic motivation. Three of those factors are the employees' feelings of competence, autonomy, and mastery. When using Plan B, an employer helps an employee to meet the job requirements in question and also helps the employee to build cognitive skills that he or she will use to solve future problems, thus improving the employee's sense of competence and mastery. Additionally, when the employer empowers staff to help solve their own problems, this shifts the locus of control from external ("I do this because my employer said to") to internal ("I do this because I decided it is what will work best"), enabling employees to have control and influence on the solutions they will use to meet expectations. By collaborating with the employer on solutions that will work to get everyone's needs met, the employee takes ownership of the process of planning for success, increasing the employee's sense of autonomy in managing their own job expectations. Furthermore, while Plan B increases intrinsic motivation for success through increasing feelings of mastery, competence,

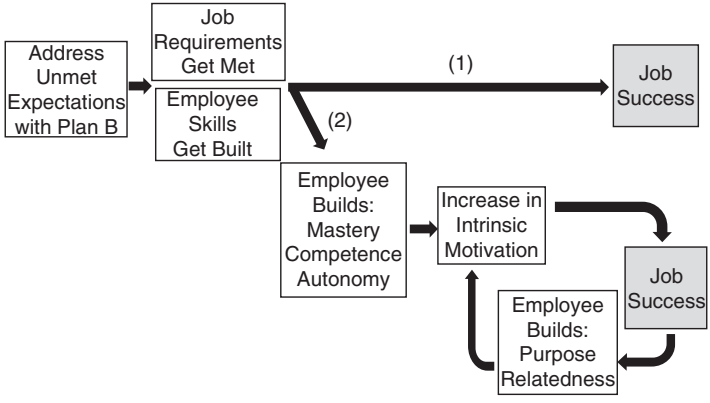

FIGURE 9.2 How addressing unmet expectations with Plan B leads to job success (1) directly through improved performance and (2) indirectly through increased intrinsic motivation for success

and autonomy, this also sets in motion a self-perpetuating cycle with other downstream effects that benefit an employee's intrinsic motivation and success. The job success then in turn contributes to two more factors that improve an employee's intrinsic motivation: Success at work supports the employees' connection to other individuals and to the community and provides them with a feeling that they are part of something larger. These senses of relatedness [3] and purpose [6] further contribute to increasing intrinsic motivation for employees in the workplace. This is illustrated in Fig. 9.2.

Case Study

The following is an illustrative example of the application of the Plan B process during individual supervision in a clinical setting. Jamie[1] had always been a very committed and dedicated employee of the organization and had received very

[1] This is a true story, but the name of the employee and some details have been changed to protect the individual's privacy.

positive feedback from clients, colleagues, and supervisors. This included meeting client needs without hesitation, impacting substantially on the family system and improving the outcomes for children that she had served. However, Jamie had many challenges getting the administrative pieces of her job completed, including documentation related to all the clinical work she was doing. Jamie's managers had made many attempts to impose their will, including insistence, coercion, and incentives. An increasingly progressive list of disciplinary and arbitrary solutions proposed by managers had limited impact on increasing Jamie's compliance with administrative expectations, and eventually she even began avoiding her supervisors and occasionally canceling clinical supervision.

While this was occurring, the organization had moved into the final stages of implementing Collaborative Problem Solving across all of its programs. A decision was made to pause the progressive discipline process with Jamie, as she was quickly moving toward termination of her employment, which would have been a significant loss to her and also to the organization given the competencies she had working directly with her clients. After some discussion, the employer made a decision to approach the expectations that Jamie was not meeting in the same way she expected staff to address unmet expectations with the children and families they work with. Jamie and her supervisor engaged in several Plan B conversations about getting treatment plans completed and handed in by their due dates, one of several specific unmet expectations related to paperwork requirements. During these discussions, Jamie noted that she had completed the paperwork, however was not able to hand it in. With further probing and discussion, the supervisor learned that Jamie had a difficult time handing in work that she believed was not "just perfect." Her perspective was clearly getting in the way of her meeting the expectations around handing in her work. Through the Plan B process, Jamie was able to articulate what was getting in her way, was able to hear from her supervisor why it was important for her to meet the expectations, and later was able to come up with a solution that met both

concerns/perspectives. Specifically, an agreement was reached that Jamie could submit her treatment plans in draft format to meet the particular deadline and then was allowed a longer period of time to finalize her draft if she so wished. Over time, Jamie began to meet the expected deadlines and was able to shift her thinking from needing to submit "the perfect" document to being able to submit a very complete and comprehensive document (that quite frankly her supervisor believed to be perfect).

This process of Plan B with Jamie mirrors that of Plan B with children and clinical populations. The only difference is who the Plan B participants are. The first step in a Plan B with employees is to empathize and to clarify the employee's concern or perspective. The key ingredient in the first step is to begin the conversation with a neutral statement that summarizes the problem to be solved. It is highly advisable to let the employee know that this conversation is not going to result in unilateral disciplinary action; rather it is a conversation to understand what might be getting in the way of the expectation getting met. In Jamie's case, the supervisor began individual supervision with "Hi, Jamie, I was hoping to spend some time chatting with you today about getting paperwork in on time. I also want you to know that you are not in trouble, and I am guessing there is a really good reason that your paperwork is not getting in on time. Can you tell me what's up?" This reassurance puts the employee at ease and keeps them regulated.

Once the supervisor understands the employee's concern, the next step is to share the employer's concern. When doing so, it is advisable that the concern be clearly articulated and not simply a restatement of the expectation. In Jamie's case, the supervisor's concern was not simply "The paperwork must be done on time" but, rather, "These deadlines are in place because we need to meet accreditation standards and funder expectations related to paperwork." This is followed with an invitation to brainstorm solutions that can address both sets of concerns/perspectives in a mutually agreeable way. Here, it was important to ensure that the solution

addressed both sets of concerns or perspectives; otherwise that solution would not have been durable, and ultimately the expectations would continue to be unmet. The invitation to brainstorm solutions sounded like "What can we do so you don't feel forced to hand in an imperfect product, and so we meet the requirements of our accreditors and funders?"

Remember that, like with Jamie, it may take multiple problem-solving conversations to get to a solution that works. This process is, however, worth it. In the end, the job requirement was being met durably, the relationship between Jamie and her supervisor was repaired, Jamie had practiced and built skills like flexibility and frustration tolerance, she stopped engaging in undesirable behaviors like avoiding her supervisor, and Jamie had a greater sense of competence, job mastery, and autonomy, leading to greater intrinsic motivation for success. A situation that had almost led to termination of an otherwise excellent clinician was reversed, and Jamie remains one of our most committed employees.

Conclusion

Progressive discipline in the workplace has been a long-standing mechanism to manage employees in an effort to increase compliance with rules and expectations. Sadly, this strategy fails to take into consideration key components as articulated throughout this chapter. Specifically, that employees typically want to do well rather than the conventional thinking that lack of compliance is a result of the employee wanting to avoid a task or expectation. Moreover, meeting expectations requires a substantial set of skills and understanding of the expectation at hand. As employers, is it not incumbent upon us to work with our employees to enable getting the best product from them? We do know that the typical progressive discipline rarely achieves its intended outcome of improving performance. Instead it often has financial costs and significant costs to morale in the work environment. Building skills through Plan B conversations to increase

capacity to meet expectations from my perspective certainly lends itself better to morale in the workplace and protects investment already made in the employee by equipping to do better rather than disciplining and hoping that results in increased skills!

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Epilogue

It has been nearly 20 years since we began attempting to implement Collaborative Problem Solving in various types of systems, ranging from inpatient psychiatry to general education settings. During that time, we have been a part of some notably successful partnerships, have suffered some failed implementation attempts, and have experienced everything in between.

In recent years, we noticed that we had amassed enough experience to be able to identify patterns that characterized the more successful and less successful projects. More and more, we began following those patterns that had led to success and laying to rest any of our implementation practices that didn't work for CPS. Not surprisingly, our lived experience in these past decades closely mirrors the recommendations for best practices flowing from Implementation Science, a field that was in its infancy when we began. As Dr. Duda and her colleagues remind us in Chap. 3, having an effective intervention like Collaborative Problem Solving does not ensure successful outcomes. Success rests equally on employing effective implementation methods.

This book attempts to map these experiences, and those of our partners, onto best practices in implementation in a way that can be shared and replicated in other organizations. We hope that by having this information, you will avoid some of

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our previous pitfalls and maximize the chances of successful outcomes for youth and families.

Much has been written about how to practice the Collaborative Problem Solving approach in different settings. We are now pleased to have provided a resource on how to implement those practices effectively.

- J. Stuart Ablon

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