

Child-Centered Play Therapy

William Schultz

Minnesota School of Professional Psychology at Argosy
University

1. Introduction

This article highlights the role of play in therapeutic work with children. After providing an illustrative case study and discussing the theory of play therapy, I review outcome studies and discuss some important normative treatment implications of this data. The data reviewed here supports the view that play has an important developmental role in children experiencing emotional and behavioral difficulties. Interventions which use play-based therapy offer promising benefits when compared to biologically driven, medication-based interventions.

2. An Illustrative Case Study: Henry¹

“Henry” is a nine-year-old Hispanic boy from a low-income family. His referral information states that he had numerous emotional and behavioral problems at home and school. He frequently stole from family members, classmates, teachers, and even his friends. He exhibited a variety of impulsive behavior, from throwing tantrums at home to storming out of his classroom at school to becoming aggressive with anyone who got in his way.

An intake interview with Henry’s guardian revealed that Henry was a middle child of four siblings. Henry’s mother was in jail and his father did not live with his family and had little contact. The family had a long record of interactions with the police.

When my therapy with Henry began, Henry usually played games such as Jenga and checkers. After around a month of playing games, Henry’s play interests changed to pretend cooking and he used the play kitchen set to cook a variety of meals. Soon after, Henry invited me to cook with him. He told me I needed to cook well so that we could feed all of the customers and keep them happy. He emphasized that if a customer became upset with me, he would keep me safe. After several weeks of primarily cooking-focused play, Henry transitioned to playing in the sand tray—a 3x3 foot table with a 6-inch deep sand pit. In the sand tray, play usually focused on a family of toy turtles

¹ This is a fictional case study with elements commonly found in my clinical work.

and their interactions with a variety of other animals. Typical themes of play included the baby turtle seeing things the mother and father turtle could not (and the disputes that arose because of this incongruity); the mother and father turtle being abducted—for one reason or another—from the pit; and other animals befriending, attacking, feeding, or playing with the turtle family. Henry often identified with a small plastic bird that had the power to turn invisible and fly over the sand and that commented on the interactions of the turtle family and their environment.

In the midst of this three-month development in the play therapy room, Henry's teachers and school staff reported that his emotional dysregulation and problematic behavior had almost entirely disappeared.

3. Child-Centered Play Therapy

Child-centered play therapy (CCPT) is a form of client-centered therapy. Like most psychotherapies, CCPT postulates underlying psychotherapeutic mechanisms of change which are primarily responsible for emotional and behavioral changes. In contrast to more directive psychotherapies, such as cognitive-behavioral therapy (CBT), which emphasize belief modification, behavior modification, and skill building as crucial mechanisms,² CCPT posits that *play*—within a secure environment and in the presence of an accepting therapist—is the primary mechanism of change. An examination of the concepts “play,” “secure environment,” and “accepting therapist” will illuminate this mechanism.

Play is a “deceptively simple” concept which is difficult to define.³ One reason play is challenging to define is that it seems to include a wide variety of behaviors. For instance, sensorimotor play is characterized by repeated interactions with an object(s), such as a one-year-old putting a star-shaped block into a star-shaped slot.⁴ Rough-and-tumble play includes behavior such as climbing, chasing, and play fighting.⁵ Fantasy and pretend

² Robert D. Friedberg and Jessica M. McClure, *Clinical Practice of Cognitive Therapy with Children and Adolescents: The Nuts and Bolts* (New York: Guilford Publications, 2015).

³ Karen Stagnitti, “Understanding Play: The Implications for Play Assessment,” *Australian Occupational Therapy Journal* 51, no. 1 (2004), pp. 3-12; Robert Fagen, *Animal Play Behavior* (New York: Oxford University Press, 1981).

⁴ Angeline S. Lillard, “The Development of Play,” in *Handbook of Child Psychology and Developmental Science, Cognitive Processes*, ed. Richard M. Lerner, Lynn S. Liben, and Ulrich Mueller (New York: Wiley & Sons, 2015), pp. 425-68.

⁵ Peter K. Smith, “Play Fighting and Real Fighting,” in *New Aspects of Human Ethology*, ed. Alain Schmitt et al. (New York: Plenum Press, 1997), pp. 47-64.

play typically unfold in narrative sequences and often involve props (for example, dolls, miniatures, a toy stove).⁶

Many attempts have been made to refine and integrate the concept of play. One approach is to integrate behavior with consequences. For example, sometimes play fighting and real fighting are difficult to distinguish. However, if two children remain together and friendly after the conclusion of a “fight,” then it is best characterized as play rather than aggression.⁷ Another influential observation is that play behavior does not appear to serve an immediate purpose. From this perspective, non-instrumentality is a central characteristic of play.⁸

Even if we assume that non-instrumentality is a necessary feature of play, it is also true that children benefit from it in many ways. For instance, play encourages self-regulation of attention, emotion, and behavior.⁹ That is, it provides children a time during which they, not their parents, teachers, or instructional materials, guide experience and decision making. This type of experience encourages the development of metacognitive and self-regulatory skills which, in turn, support the growth of other skills such as problem solving.¹⁰ Self-regulated experience can also be important in educational development. For example, literacy education necessarily includes structured instruction in letter recognition, decoding, and reading. Yet, it is also important to give children space and time to experiment with their newly developing literacy skills outside of structured instruction, because this setting allows children to broaden and deepen their understanding in a way that is more effective than “top-down didactic transmission.”¹¹ The beneficial effects of play have been documented in math,¹² geometric knowledge,¹³ and general

⁶ Anthony D. Pellegrini and Peter K. Smith, “The Development of Play During Childhood: Forms and Possible Functions,” *Child Psychology and Psychiatry Review* 3, no. 2 (1998), pp. 51-57.

⁷ Ibid.

⁸ Johan Huizinga, *Homo Ludens: A Study of the Play-Element in Culture* (New York: Routledge, 1950).

⁹ Ageliki Nicolopoulou, “The Alarming Disappearance of Play from Early Childhood Education,” *Human Development* 53, no. 1 (2010), pp. 1-4.

¹⁰ David Whitebread, Penny Coltman, Helen Jameson, and Rachel Lander, “Play, Cognition and Self-Regulation: What Exactly Are Children Learning When They Learn Through Play?” *Play and Learning in Educational Settings* 26, no. 2 (2009), pp. 40-50.

¹¹ Nicolopoulou, “The Alarming Disappearance of Play from Early Childhood Education,” p. 2.

¹² Julie Sarama and Douglas H. Clements, *Early Childhood Mathematics Education Research: Learning Trajectories for Young Children* (New York: Routledge, 2009).

academic achievement¹⁴ as well as in emotional competence¹⁵ and social competence.¹⁶

In the context of CCPT the central features of play are that it is an intrinsically motivated activity that is intrinsically complete.¹⁷ That is, the client initiates play for his own purposes for its own sake. To the greatest extent possible, the therapist allows the child to dictate the course of each therapy session, such as choosing the type of play to participate in and following along within that form of play. In the example of Henry discussed above, play includes activities ranging from participating in board games to pretend cooking to activities in the sand tray.

A secure environment is the physically safe space of the play-therapy room. More importantly for an emotionally troubled child is that the child can predict and understand what unfolds within a play-therapy room. It is hoped that the child quickly learns that he is in control of the play-therapy room—that this is his space to *be*.

Intimately related to a secure environment is the presence of an accepting therapist.¹⁸ Virginia Axline, a pioneer of CCPT, describes an accepting therapist's approach to working with a child as follows: In the play-therapy room, "no one criticizes what he does, no one nags, or suggests, or goads. . . . He can say anything that he feels like saying—and he is accepted completely. He can play with the toys in any way that he likes to—and he is accepted completely. He can hate and he can love and he can be as indifferent as the Great Stone Face—and he is still accepted completely."¹⁹

¹³ Kelly R Fisher, Kathy Hirsh-Pasek, Nora Newcombe, and Roberta M. Golinkoff, "Taking Shape: Supporting Preschoolers' Acquisition of Geometric Knowledge Through Guided Play," *Child Development* 84, no. 6 (2013), pp. 1872-78.

¹⁴ Pedro J. Blanco, Dee C. Ray, and Ryan Holliman, "Long-Term Child Centered Play Therapy and Academic Achievement of Children: A Follow-Up Study," *International Journal of Play Therapy* 21, no. 1 (2012), pp. 1-13.

¹⁵ Eric W. Linsey and Malinda J. Colwell, "Preschoolers' Emotional Competence: Links to Pretend and Physical Play," *Child Study Journal* 33, no. 1 (2003), pp. 39-53.

¹⁶ Emma Newton and Vickii Jenvey, "Play and Theory of Mind: Associations with Social Competence in Young Children," *Early Child Development and Care* 181, no. 6 (2011), pp. 761-73.

¹⁷ Kevin J. O'Connor, *The Play Therapy Primer* (Hoboken, NJ: John Wiley & Sons Inc, 2000), p. 4.

¹⁸ David A. Crenshaw and Sueann Kenney-Noziska, "Therapeutic Presence in Play Therapy," *International Journal of Play Therapy* 23, no. 1 (2014), pp. 31-43.

¹⁹ Virginia Axline, *Play Therapy*, rev. ed. (New York: Ballantine, 1969), p. 16.

This radically accepting attitude is likely an unusual experience for a troubled child. In most circumstances, such as when the child is at home or at school, the child experiences a variety of demands. These demands can range from simple and probably unavoidable demands—such as eating, sleeping, and complying with commands—to complicated processes such as navigating the emotional demands placed upon him by his guardians, siblings, friends, and teachers.²⁰ Consider, for example, the emotional demands faced by a child raised by an abusive father. Imagine the awareness a child likely develops in this context: noticing the triggers and cues that tend to precede abusive situations and developing an awareness of behavioral strategies to placate the father or avoid confrontation. Regardless of the particular demands on a particular child, due to the formative stage of children, demands are especially powerful experiences which are related to long-term neural, emotional, behavioral, and social development.²¹

Enter the accepting play therapist. The therapist does not bring to the child more demands. The therapist does not “demand” that the child learn emotion-regulation techniques or cognitive-reframing strategies. The therapist does not demand that the child immediately or quickly adopt new feelings or new behaviors. The therapist holds a space for the child to manifest his own identify *separate* from the problems the child typically experiences, and then bears witness to that manifestation.²² Underlying this approach is the belief that the child “has within himself . . . the ability to solve his own problems.”²³ As a result, the therapist “grants the individual the permissiveness to be himself; it accepts that self completely, without evaluation or pressure to change.”²⁴

From this perspective, a therapist’s essential functions in therapy are to pay attention to the client, unconditionally accept the client,²⁵ communicate that attention and acceptance to the client (that is, demonstrate attention by

²⁰ Eliana Gil, *The Healing Power of Play: Working with Abused Children* (New York: Guilford Press, 1991).

²¹ R. L. Gaskill, and B. D. Perry, “The Neurobiological Power of Play: Using the Neurosequential Model of Therapeutics to Guide Play in the Healing Process,” in *Creative Arts and Play Therapy for Attachment Problems*, ed. C. Malchiodi and D. Crenshaw (New York: Guilford Press, 2014), pp. 178-94.

²² Brie A. Turns and Jonathan Kimmes, “‘I’m NOT the Problem!’ Externalizing Children’s ‘Problems’ Using Play Therapy and Developmental Considerations,” *Contemporary Family Therapy* 36, no. 1 (2014), pp. 135-47.

²³ Axline, *Play Therapy*, p. 15.

²⁴ *Ibid.*

²⁵ Ethical guidelines and state laws prohibit the “unconditional acceptance” of behavior that poses significant risk of injury to self or others.

stating factual descriptions of the child's behavior; for example, "You are paying close attention to what you're cooking in your frypan"), and demonstrate acceptance by adopting a non-judgmental attitude (that is, non-judgmentally commenting; for example, "The dinosaur killed the baby elephant even though the elephant asked it not to"). This non-directive approach nurtures a secure and warm relationship with the client.²⁶

Underneath this non-directive assumption that a client has the ability to solve his own problems is belief in a developmental trajectory inherent within human beings which will unfold predictably unless obstructed.²⁷ This trajectory includes physical, cognitive, emotional, social, and play development. For instance, if a child's emotional development is obstructed because of a traumatic event or a chronically abusive relationship, the assumption underlying CCPT is that a child's inherent developmental drives can overcome the obstruction as long he is given the time and space to do so.

The inclusion of play development is instructive because it points to a central tenet of play therapy: children process their inner experience through play.²⁸ Thus, as a child's inner experience deepens and matures, so does his play. For example, researchers have identified the relationship between the typical developmental milestones and various types of play activities. For instance, while manipulation of the physical environment is a predominant form of play for very young children, pretend play becomes dominant in children ages two through six. By age five, children's play typically includes multi-faceted fantasy which incorporates a variety of toys or other props.

Researchers have also identified familiar patterns in the progression of play within play therapy.²⁹ The case study of Henry is a good example of this progression. As therapy progressed and our relationship deepened, Henry's play transformed. At first, Henry was reluctant to speak with me and we mostly played games. As our relationship grew, Henry transitioned from board games to pretend cooking to incorporating me into his pretend cooking within a narrative (keeping customers happy) to the sand tray in which in-depth scenarios, usually involving families, were played out. This process highlights the development of the therapeutic relationship and the child processing his experiences. That is, as Henry's trust in me grew, so did his emotional openness, evidenced by his incorporating me into his stories and

²⁶ O'Connor, *The Play Therapy Primer*, p. 31.

²⁷ *Ibid.*, p. 91.

²⁸ Sue C. Bratton, Dee Ray, Tammy Rhine, and Leslie Jones, "The Efficacy of Play Therapy with Children: A Meta-Analytic Review of Treatment Outcomes," *Professional Psychology: Research and Practice* 36, no. 4 (2005), pp. 376-90.

²⁹ Virginia Ryan and Andrew Edge, "The Role of Play Themes in Non-Directive Play Therapy," *Clinical Child Psychology and Psychiatry* 17, no. 3 (2012), pp. 354-69.

involving me in the family dynamics of the miniatures in the sand tray. This transition within the play-therapy room was accompanied by a dramatic reduction of Henry's problematic behavior at home and school. The case example of Henry is not unique and it is a process that is supported by research, which will be examined below.

4. Why Does Play Work in Therapy?

Researchers are not sure why play contributes to positive treatment outcomes.³⁰ Play is almost certainly effective for a variety of reasons that are common to all forms of therapy, such as the therapeutic alliance and consistent and compassionate attention to the child.³¹ However, there are numerous theories about why play specifically is a beneficial therapeutic intervention.³² Three prominent possibilities are reviewed below.

First, there is a large body of research which strongly suggests a relationship between self-expression and well-being.³³ This research typically links self-expression to personal autonomy and self-determination, which both contribute to well-being.³⁴ Thus, therapeutic interventions which foster conditions for self-expression, such as a trusting and caring therapeutic relationship, could be expected to improve well-being. This is, in fact, what a wide variety of psychotherapy research has identified.³⁵ Understandably, child and adult self-expression in psychotherapy differs. Unlike many adults, children generally “do not have the vocabulary to accurately express their emotions or their understanding of situations.”³⁶ As a result, children use play to communicate: “Toys are their words, and play is their language.”³⁷ Thus,

³⁰ Charles E. Schaefer and Athena A. Drewes, eds., *The Therapeutic Powers of Play: 20 Core Agents of Change* (New York: John Wiley & Sons, 2013).

³¹ Bruce E. Wampold and Zac E. Imel, *The Great Psychotherapy Debate: The Evidence for What Makes Psychotherapy Work* (New York: Routledge, 2015).

³² Athena A. Drewes and Charles E. Schaefer, “How Play Therapy Causes Therapeutic Change,” in *The Therapeutic Powers of Play*, ed. Schaefer and Drewes, pp. 1-5.

³³ C. Welzel and R. Inglehart, “Agency, Values, and Well-Being: A Human Development Model,” *Social Indicators Research* 97, no. 1 (2010), pp. 43-63.

³⁴ E. L. Deci and R. M. Ryan, “The ‘What’ and ‘Why’ of Goal Pursuits: Human Needs and the Self-Determination of Behavior,” *Psychological Inquiry* 11, no. 4 (2000), pp. 227-68.

³⁵ Wampold and Imel, *The Great Psychotherapy Debate*.

³⁶ Mary M. Bennett and Stephanie Eberts, “Self-Expression,” in *The Therapeutic Powers of Play*, ed. Schaefer and Drewes, pp. 11-23.

³⁷ *Ibid.*, p. 23.

some of CCPT's psychotherapeutic effectiveness is likely related to creating an environment in which children can express themselves in a developmentally appropriate way.

Another possible mechanism contributing to the effectiveness of play is its role in developing self-regulation. Self-regulation encompasses an individual's ability to control and moderate pleasant and unpleasant emotions, and it contributes to an individual's sense of self.³⁸ Self-regulation is strongly associated with feelings of subjective well-being as well as better health and goal achievement.³⁹ Self-regulation includes processes such as response inhibition, cognitive flexibility, self-monitoring, and shifting focus.⁴⁰ Crucially, children develop response inhibition, cognitive flexibility, etc. via play.⁴¹ For instance, toddlers often grab, manipulate, take apart, and reassemble objects or toys. This process is rudimentary cognitive flexibility. As children grow older and their play moves beyond simple object manipulation to imaginative and narrative play, they recruit and develop deeper levels of cognitive flexibility, self-monitoring, and focusing—as well as practice a variety of other cognitive processes, such as working memory. As a result, play in CCPT likely contributes to positive therapeutic outcomes in part because it creates a space in which children develop self-regulatory skills which, in turn, decrease emotional dysregulation and increase a sense of well-being.

A third possible reason for play's effectiveness is its cathartic properties. Catharsis is the release or discharge of emotion. In the context of CCPT, catharsis is most frequently related to emotions resulting from traumatic experiences.⁴² Children who have experienced traumatic events,

³⁸ Kalevi Korpela, Marketta Kyttä, and Terry Hartig, "Restorative Experience, Self-Regulation, and Children's Place Preferences," *Journal of Environmental Psychology* 22, no. 4 (2002), pp. 387-98.

³⁹ Albert Bandura, "Social Cognitive Theory of Self-Regulation," *Organizational Behavior and Human Decision Processes* 50, no. 2 (1991), pp. 248-87; Carsten Wrosch et al., "Adaptive Self-Regulation of Unattainable Goals: Goal Disengagement, Goal Reengagement, and Subjective Well-Being," *Personality and Social Psychology Bulletin* 29, no. 12 (2003), pp. 1494-1508.

⁴⁰ Marcie Yeager and Daniel Yeager, "Self-Regulation," in *The Therapeutic Powers of Play*, ed. Schaefer and Drewes, pp. 269-92.

⁴¹ Laura E. Berk, Trisha D. Mann, and Amy T. Ogan, "Make-Believe Play: Wellspring for Development of Self-Regulation," in *Play = Learning: How Play Motivates and Enhances Children's Cognitive and Social-Emotional Growth*, ed. Dorothy Singer, Roberta Golinkoff, and Kathy Hirsh-Pasek (Oxford: Oxford University Press, 2006), pp. 74-100; Cynthia L. Elias and Laura E. Berk, "Self-Regulation in Young Children: Is There a Role for Sociodramatic Play?" *Early Childhood Research Quarterly* 17, no. 2 (2002), pp. 216-38.

⁴² Athena A. Drewes and Charles E. Schaefer, "Catharsis," in *The Therapeutic Powers*

such as natural disasters, kidnapping, domestic violence, abuse, etc. often reenact the events during play therapy.⁴³ Crucially, these reenactments occur in the safe context of the play-therapy office and the therapist's presence. Furthermore, the reenactments often involve slight modifications which emphasize the child's control instead of his powerlessness in the original traumatic situation. These two factors combine to foster in a child an increased sense of security and mastery over situations and emotions that were previously experienced as unsafe, uncontrollable, and overwhelming. As a result, a child's previously held unpleasant emotions related to their trauma are discharged and transformed into newer, more manageable states: "In the safety of the playroom, the child can verbally or physically express and release emotional tensions. . . . This termination of 'unfinished business' prevents future emotional arousal."⁴⁴

5. CCPT Outcomes

The first meta-analysis of play therapy was conducted in 2001.⁴⁵ This meta-analysis reviewed forty-two studies of play therapy. The results indicated that play therapy produced an effect size of 0.66, which indicates that play therapy had an effect size comparable to other forms of child psychotherapy. This finding is congruent with the "common-factors" psychotherapy research which supports the view that the type or technique of therapy is less important than factors that are common to all forms of psychotherapy, such as goal consensus, the therapeutic alliance, empathy, and expectations.⁴⁶

Subsequent meta-analyses attempted to increase their scope and to include more recent and rigorous controlled studies. The largest meta-analysis of CCPT examined ninety-three controlled studies which identified treatment outcomes over a variety of domains, such as behavior, social adjustment and functioning, and self-concept.⁴⁷ In sum, this meta-analysis identified a mean

of Play, ed. Schaefer and Drewes, pp. 71-80.

⁴³ Yumiko Ogawa, "Childhood Trauma and Play Therapy Intervention for Traumatized Children," *Journal of Professional Counseling, Practice, Theory, & Research* 32, no. 1 (2004), pp. 19-29.

⁴⁴ Drewes and Chaefer, "Catharsis," in *The Therapeutic Powers of Play*, ed. Schaefer and Drewes, p. 96.

⁴⁵ Michael Leblanc and Martin Ritchie, "A Meta-Analysis of Play Therapy Outcomes," *Counselling Psychology Quarterly* 14, no. 2 (2001), pp. 149-63.

⁴⁶ Wampold and Imel, *The Great Psychotherapy Debate*.

⁴⁷ Bratton, Ray, Rhine, and Jones, "The Efficacy of Play Therapy with Children," pp. 376-90.

effect size of 0.80—generally considered a large treatment effect.⁴⁸ Interestingly, and at odds with common-factors predictions, this meta-analysis identified significant differences in effect size between non-directive and directive play therapies. The mean effect size for non-directive play therapies was 0.92 while the mean effect size for directive play therapies was 0.71, which is a statistically significant difference. The authors of the meta-analysis argue that, at the least, their data supports the practice of CCPT and possibly suggests reasons to prefer CCPT over more directive therapies. Yet, the authors note that there are some limitations to their meta-analysis, such as the fact that some of the included studies lacked rigor and called for further research.

Subsequent meta-analyses have found less impressive results, which are more congruent with the common-factors psychotherapy research. Two of the most recent meta-analyses, published in 2015, identified effect sizes between 0.21 to 0.38⁴⁹ and 0.47.⁵⁰ When compared to previous meta-analyses, the significant decrease in the effect size was almost certainly the result of including studies with stricter methodology and more specific estimates of effect sizes. Nevertheless, while subsequent meta-analyses were unable to make a strict comparison between treatment types due to methodological reasons, their findings suggest that CCPT may provide superior treatment effects when compared to other forms of therapy and that it is at least as effective as other interventions (for example, behavioral therapy). CCPT research continues to expand, focusing on diverse populations, specific and comorbid diagnoses, and the mediators and moderators of change.⁵¹

The outcomes reviewed above suggest that CCPT has powerful effects on children's emotional states and behavior. These effects are important to consider when planning interventions to assist children who are experiencing distress or behavioral problems. This is especially true because there is a tendency to biologize children's distress and problematic behavior, resulting in a tendency to intervene with medication instead of psychosocial interventions such as CCPT. I discuss below the increasing trend in explaining

⁴⁸ Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. (Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers, 1988).

⁴⁹ Dee C. Ray, Stephen A. Armstrong, Richard S. Balkin, and Kimberly M. Jayne, "Child-Centered Play Therapy in the Schools: Review and Meta-Analysis," *Psychology in the Schools* 52, no. 2 (2015), pp. 107-23.

⁵⁰ Yung-Wei Lin and Sue C. Bratton, "A Meta-Analytic Review of Child-Centered Play Therapy Approaches," *Journal of Counseling & Development* 93, no. 1 (2015), pp. 45-58.

⁵¹ Sue C. Bratton, "The Empirical Support for Play Therapy: Strengths and Limitations," in *Handbook of Play Therapy*, ed. Kevin J. O'Connor, Charles E. Schaefer, and Lisa D. Braverman (Hoboken, NJ: Wiley, 2016), pp. 651-68.

distress and problematic behavior via biology, some reasons this tendency is clinically problematic, and how an approach that integrates CCPT and other psychosocial interventions can more comprehensively and humanely assist children.

6. Biologizing Distress and Problematic Behavior

There is a pronounced trend to seek primarily or exclusively biological explanations of distress and problematic behavior. To illustrate this, consider that when the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) was published in 2013, many of its producers had mixed feelings about it. Many of those responsible for creating the DSM-5 had hoped that neuroscience, genetics, and other biological sciences would significantly inform the diagnostic criteria.⁵² Yet, the DSM-5 states that there are no x-rays, lab tests, or biomarkers for psychiatric disorders such as major depressive disorder (MDD), attention-deficit hyperactivity disorder (ADHD), generalized anxiety disorder (GAD), or any other psychiatric disorder.⁵³ In fact, Thomas Insel, until recently the head of the National Institute of Mental Health (NIMH), laments that researchers and clinicians have no clinically actionable biomarkers for any psychiatric disorder; even the biological markers associated with psychiatric disorders have seldom been replicable.⁵⁴

Nevertheless, as it became increasingly clear that the DSM-5 would not integrate biomarkers, the NIMH undertook a new research program: the Research Domain Criteria Project (RDoC).⁵⁵ Many factors motivated launching the RDoC.⁵⁶ One of the most important is that it appears that those responsible for the RDoC endorse a form of physicalism which implies that the brain is responsible for psychological experience and, as a result, disordered psychological function is the result of disordered brain function.⁵⁷

⁵² B. J. Casey et al., “DSM-5 and RDoC: Progress in Psychiatry Research?” *Nature Reviews Neuroscience* 14, no. 11 (2013), pp. 810-14.

⁵³ Colin A. Ross, “Biology and Genetics in DSM-5,” *Ethical Human Psychology and Psychiatry* 15, no. 3 (2013), pp. 195-98.

⁵⁴ Thomas A. Insel, “A Different Way of Thinking,” *New Scientist* 227, no. 3035 (2015), p. 5.

⁵⁵ Thomas Insel et al., “Research Domain Criteria (RDoC): Toward a New Classification Framework for Research on Mental Disorders,” *American Journal of Psychiatry* 167, no. 7 (2010), pp. 748-51.

⁵⁶ For instance, it is hoped that the RDoC can solve an important problem with the DSM-5. Many DSM-5 diagnostic categories have difficulty obtaining consistent diagnoses from multiple clinicians. That is, different clinicians frequently diagnosis the same client with a different DSM-5 diagnosis. Another motivation is related to the emphasis on precision medicine in medical fields.

⁵⁷ See Brett J. Deacon, “The Biomedical Model of Mental Disorder: A Critical

This sort of thinking can be seen in studies that attempt to link divergent brain activity with psychiatric disorders. There are thousands of such studies. For example, one recent study found statistically significant results indicating that children and adolescents who have been diagnosed with ADHD, oppositional defiant disorder, and conduct disorder have, on average, smaller brain structure and reduced brain activity in brain areas such as the bilateral amygdala, bilateral insula, and right striatum.⁵⁸ The study's authors suggest that their findings will one day provide an integrated brain model which will both explain and suggest treatment of these disorders, such as giving stimulant medication to children who have reduced brain activity.

The development of the RDoC has resulted in numerous articles identifying and lamenting its overemphasis on biology, an emphasis which poses important research and clinical implications.⁵⁹ For example, one author worries that "investigators operating within the RDoC framework must be careful not to confuse biological mediation with biological etiology. . . . For example, in principle, a psychological condition could be triggered largely by psychosocial factors, such as childhood sexual or physical abuse. Although this condition would of course be mediated by brain circuitry, its etiology would be primarily environmental."⁶⁰ This author elsewhere claims that the RDoC's emphasis on disordered brains causing psychiatric problems is akin to placing an emphasis on gravity causing airplane crashes—true, but not informative. Others worry that it is not presently possible, and may never be possible, to understand the complex, dynamic causal loops which exist

Analysis of Its Validity, Utility, and Effects on Psychotherapy Research," *Clinical Psychology Review* 33, no. 7 (2013), pp. 846-61; Kenneth S. Kendler, "Toward a Philosophical Structure for Psychiatry," *American Journal of Psychiatry* 162, no. 3 (2005), pp. 433-40; and Henrik Walter, "The Third Wave of Biological Psychiatry," *Frontiers in Psychology* 4 (2013), pp 1-8.

⁵⁸ Siri Noordermeer, Marjolein Luman, and Jaap Oosterlaan, "A Systematic Review and Meta-analysis of Neuroimaging in Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) Taking Attention-Deficit Hyperactivity Disorder (ADHD) into Account," *Neuropsychology Review* 26, no. 1 (2016), pp. 44-72.

⁵⁹ Amitai Abramovitch and A. Schweiger, "Misuse of Cognitive Neuropsychology in Psychiatry Research: The Intoxicating Appeal of Neo-Reductionism," *Behavior Therapist* 38, no. 7 (2015), pp. 187-91; Scott O. Lilienfeld, "The Research Domain Criteria (RDoC): An Analysis of Methodological and Conceptual Challenges," *Behaviour Research and Therapy* 62 (2014), pp. 129-39; Scott O. Lilienfeld and Michael T. Treadway, "Clashing Diagnostic Approaches: DSM-ICD Versus RDoC," *Annual Review of Clinical Psychology* 12 (2016), pp. 435-63; Joal Paris and Laurence J. Kirmayer, "The National Institute of Mental Health Research Domain Criteria: A Bridge Too Far," *The Journal of Nervous and Mental Disease* 204, no. 1 (2016), pp. 26-32.

⁶⁰ Lilienfeld, "The Research Domain Criteria (RDoC)," p. 132.

between cognition, belief, brain function, and psychiatric problems.⁶¹ Still others express concern that the RDoC is very unlikely to succeed because of the irreducible social component of psychiatric disorders.⁶² These concerns lead to deep questions in the philosophy of mind and the philosophy of science (which won't be answered here). It's clear that many scholars in the field have noted an increasing trend to rely on biological explanations in psychiatry.

7. Negative Consequences of Biologizing Distress

This increased tendency to understand psychiatric disorders from a primarily biological perspective has significant clinical implications. Two implications are reviewed here. First, consider the relationship between emphasis on biological etiologies of psychiatric disorders and medication use. Numerous studies have found that the more that mental health practitioners, mental health patients, and the public endorse a biological etiology of psychiatric disorders, the more likely they are to endorse medication.⁶³ To illustrate this, consider ADHD, one of the most commonly diagnosed psychiatric disorders among children.⁶⁴ The Centers for Disease Control (CDC) has identified that, despite newer recommendations that children should first be treated with psychological and/or social interventions, they are often immediately treated with ADHD medication⁶⁵ and, unfortunately,

⁶¹ Thomas Fuchs, "The Brain—A Mediating Organ," *Journal of Consciousness Studies* 18, nos. 7-8 (2011), pp. 196-221.

⁶² Owen Whooley, "Nosological Reflections, the Failure of DSM-5, the Emergence of RDoC, and the Decontextualization of Mental Distress," *Society and Mental Health* 4, no. 2 (2014), pp. 92-110.

⁶³ Matthew S. Lebowitz, "Biological Conceptualizations of Mental Disorders among Affected Individuals: A Review of Correlates and Consequences," *Clinical Psychology* 21, no. 1 (2014), pp. 67-83; John Read et al., "Beliefs of People Taking Antidepressants about Causes of Depression and Reasons for Increased Prescribing Rates," *Journal of Affective Disorders* 168 (2014), pp. 236-42.

It is almost certainly true that other important factors influence the emphasis on medication over psychosocial interventions, such as the power and influence of pharmaceutical companies and the relative lesser emphasis placed on psychosocial intervention research for psychiatric disorders. Nevertheless, the reliance on medication is pervasive and importantly linked to biological etiologies.

⁶⁴ B. D. Fulton et al., "National Variation of ADHD Diagnostic Prevalence and Medication Use: Health Care Providers and Education Policies," *Psychiatric Services* 60, no. 8 (2009), pp. 1075-83.

⁶⁵ S. N. Visser et al., "Vital Signs: National and State-Specific Patterns of Attention Deficit/Hyperactivity Disorder Treatment among Insured Children Aged 2-5 Years—United States, 2008–2014," *Morbidity and Mortality Weekly Report* 65 (2016), pp. 443–50.

sometimes with antipsychotics.⁶⁶ Research has shown that parents who believe less in psychological causes of ADHD are significantly more likely to treat their children with medication.⁶⁷ Another line of evidence supporting the increased preference for medication can be seen in cultural practices. For instance, in France, where understanding of childhood psychiatric disorders often more comprehensively integrates psychological and social information about children's context, only about .5% percent of children are diagnosed with ADHD and treated with medication.⁶⁸ This is significantly less than the 9% of children diagnosed with ADHD and treated with medication in the United States.⁶⁹

This emphasis on medication is concerning.⁷⁰ First, medications have a variety of negative side-effects. For instance, a recent study identified that Ritalin—a common ADHD medication—significantly increases the risk of myocardial infarction and arrhythmias during the initial phases of treatment.⁷¹ The study's authors emphasize that medication should be used only after alternative treatments have been considered. Many other studies have identified other adverse reactions to ADHD medication, such as loss of appetite, growth disruption (in height and weight), sleep disturbance, mood disruption, stomach pain, psychotic symptoms, and higher rates of adolescent and adult obesity.⁷² In addition to these negative side-effects, the long-term

⁶⁶ Minji Sohn, Daniela C. Moga, Karen Blumenschein, and Jeffery Talbert, "National Trends in Off-Label Use of Atypical Antipsychotics in Children and Adolescents in the United States," *Medicine* 95, no. 23 (2016), accessed online at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907659/>.

⁶⁷ C. Johnston et al., "Treatment Choices and Experiences in Attention Deficit and Hyperactivity Disorder: Relations to Parents' Beliefs and Attributions," *Child: Care, Health and Development* 31, no. 6 (2005), pp. 669-77.

⁶⁸ Marilyn Wedge, *A Disease Called Childhood: Why ADHD Became an American Epidemic* (New York: Avery, 2016).

⁶⁹ Note that the rate of diagnosis appears similar in both countries; it is the prevalence of various treatments that is different.

⁷⁰ I limit my discussion here to ADHD medication. It should be noted, though, that antidepressant and antipsychotic medication also commonly have significant negative side-effects, sometimes very severe ones.

⁷¹ Ju-Young Shin, Elizabeth E. Roughead, Byung-Joo Park, and Nicole L. Pratt, "Cardiovascular Safety of Methylphenidate among Children and Young People with Attention-Deficit/Hyperactivity Disorder (ADHD): Nationwide Self Controlled Case Series Study," *British Medical Journal* 353 (2016), accessed online at: <http://www.bmj.com/content/353/bmj.i2550>.

⁷² See Samuele Cortese et al., "Practitioner Review: Current Best Practice in the

effects of ADHD medication are relatively unknown and may pose other serious risks.⁷³

The second concern is the relationship between biological etiologies and prognostic pessimism. This concern is based on a relatively new body of evidence which has identified that individuals who endorse biological etiologies of their psychiatric conditions are significantly more likely to have increased levels of prognostic pessimism. That is, they believe that their symptoms are likely to occur at increased levels for longer periods of time.⁷⁴ The leading hypothesis explaining this phenomenon is that individuals who more strongly endorse biological etiologies of psychiatric disorders are also more likely to adopt essentialist views of themselves and their psychological states. This view holds that our psychological/emotional states are relatively immutable.⁷⁵ This is of significant clinical concern because whether individuals expect that they will or can get better, has a significant effect on whether they do get better. Thus, individuals with increased levels of prognostic pessimism will likely have decreased levels of clinical improvement.⁷⁶ Consider these facts in combination with data which found

Management of Adverse Events During Treatment with ADHD Medications in Children and Adolescents,” *Journal of Child Psychology and Psychiatry* 54, no. 3 (2013), pp. 227-46; Eric Konofal, Michel Lecendreux, and Samuele Cortese, “Sleep and ADHD,” *Sleep Medicine* 11, no. 7 (2010), pp. 652-58; L. E. MacKenzie et al., “Stimulant Medication and Psychotic Symptoms in Offspring of Parents With Mental Illness,” *Pediatrics* 137, no. 1 (2016), pp. 1-10; Brian Schwartz et al., “Attention Deficit Disorder, Stimulant Use, and Childhood Body Mass Index Trajectory,” *Pediatrics* 133, no. 4 (2014), pp. 668-76.

⁷³ Florence T. Bourgeois, Jeong Min Kim, and Kenneth D. Mandl, “Pre-market Safety and Efficacy Studies for ADHD Medications in Children,” *Plos One* 9, no. 7 (2014), accessed online at: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0102249>.

⁷⁴ See Brett J. Deacon, “The Biomedical Model of Mental Disorder: A Critical Analysis of Its Validity, Utility, and Effects on Psychotherapy Research,” *Clinical Psychology Review* 33, no. 7 (2013), pp. 846-61; Lebowitz, “Biological Conceptualizations of Mental Disorders among Affected Individuals”; William Schultz, “Neuroessentialism: Theoretical and Clinical Considerations,” *Journal of Humanistic Psychology* (December 2015), accessed online at: doi: 10.1177/0022167815617296.

⁷⁵ Nick Haslam and Erlend P. Kvaale, “Biogenetic Explanations of Mental Disorder: The Mixed-Blessings Model,” *Current Directions in Psychological Science* 24, no. 5 (2015), pp. 399-404.

⁷⁶ Michael Constantino, Rebecca M. Ametrano, and Roger P. Greenberg, “Clinician Interventions and Participant Characteristics that Foster Adaptive Patient Expectations for Psychotherapy and Psychotherapeutic Change,” *Psychotherapy* 49, no. 4 (2012), pp. 557-69.

that, among children aged eight to eighteen, “brain differences” were listed as the cause of ADHD by 92% of respondents, a far higher percentage than any other causal story, such as parenting (32%), low effort (23%), or stress (65%).⁷⁷

8. An Alternative

The negative consequences described above are especially worthy of consideration because there is general agreement that psychosocial interventions, such as CCPT and other therapies, are as effective as medication for many childhood and adolescent psychiatric disorders.⁷⁸ In addition, psychosocial interventions appear more comprehensively and humanely to account for the distress and disturbance of individuals. Consider, for instance, the emotional and behavioral problems experienced by many foster children. These children often come from troubled backgrounds and have fewer psychosocial, emotional, and financial resources available to them than do others. Unfortunately, they are also medicated, often with powerful antipsychotics being used off-label and at high rates.⁷⁹ At first glance, it is unlikely that these children suffer from a higher rate of brain disorders. Instead, it is more likely that their distress and behavioral problems are largely a reaction to their challenging environments. To claim that these children are experiencing difficulty because of disordered brains seems to sweep the relevant psychosocial factors under the rug. While medications may

⁷⁷ Daniel Coleman et al., “Children’s Beliefs about Causes of Childhood Depression and ADHD: A Study of Stigmatization,” *Psychiatric Services* 60, no. 7 (2009), pp. 950-57.

⁷⁸ See Jennifer N. Baggerly, Dee C. Ray, and Sue C. Bratton, eds., *Child-Centered Play Therapy Research: The Evidence Base for Effective Practice* (Hoboken, NJ: John Wiley & Sons, 2010); Alicia L. Fedewa et al., “Does Psychotherapy Work with School-Aged Youth? A Meta-Analytic Examination of Moderator Variables that Influence Therapeutic Outcomes,” *Journal of School Psychology* 56 (2016), pp. 59-87; William E. Pelham Jr. et al., “Behavioral Versus Behavioral and Pharmacological Treatment in ADHD Children Attending a Summer Treatment Program,” *Journal of Abnormal Child Psychology* 28, no. 6 (2000), pp. 507-25; William E. Pelham Jr. and Gregory A. Fabiano, “Evidence-Based Psychosocial Treatments for Attention-Deficit/Hyperactivity Disorder,” *Journal of Clinical Child & Adolescent Psychology* 37, no. 1 (2008), pp. 184-214; Dee Ray, Sue Bratton, Tammy Rhine, and Leslie Jones, “The Effectiveness of Play Therapy: Responding to the Critics,” *International Journal of Play Therapy* 10, no. 1 (2001), pp. 85-108; John R. Weisz, Carolyn A. McCarty, and Sylvia M. Valeri, “Effects of Psychotherapy for Depression in Children and Adolescents: A Meta-Analysis,” *Psychological Bulletin* 132, no. 1 (2006), pp. 132-49.

⁷⁹ Stephen Crystal et al., “Rapid Growth of Antipsychotic Prescriptions For Children Who Are Publicly Insured Has Ceased, But Concerns Remain,” *Health Affairs* 35, no. 6 (2016), pp. 974-82.

be useful in controlling problematic symptoms, psychological approaches (such as CCPT) are also effective. In addition, they significantly avoid the negative effects of focusing primarily or exclusively on biological explanations of distress and problematic behavior. It is thus worth emphasizing the power and beneficial effects of Child-Centered Play Therapy to children (and their parents) who are experiencing psychiatric problems.

