

What Have We Learned About Treating Children with High- Functioning Autism Spectrum Disorder in Psychodynamic Therapy?

The Catherine Shropshire Hardman Symposium for the Advancement
of Clinical Psychoanalysis and Interdisciplinary Scholarship

Geoff Goodman, Ph.D.
Emory University Psychoanalytic Institute
Emory School of Medicine
March 25, 2023

Purposes of this Presentation

- Application of single-case quantitative research to understanding psychotherapy process of children diagnosed with high-functioning autism spectrum disorder (HFASD)
- Child Psychotherapy Q-Set (CPQ) is used as the method for highlighting features of this process
- Promoting mentalization seems to be a promising strategy for treating children with HFASD
- Successful therapists know *when* to promote mentalizations and when to provide support based on patient cues

High-Functioning Autism Spectrum Disorder (HFASD)

- Diagnosed in preschool years (Khouzam et al., 2004)
- Key features of HFASD are “intact cognitive and verbal abilities but who demonstrated a severity of social interaction, a failure of communication and an intense absorption in certain subjects” (Kestenbaum, 2008, p. 280)
- “Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers”

(American Psychiatric Association, 2013, p. 50)

Linking ASD to Mentalization Deficits

- Mentalization is defined as “the capacity to conceive of conscious and unconscious mental states in oneself and others” (Fonagy, 1991, p. 681)
- Children with ASD perform more poorly on a mental state recognition task than matched controls (Baron-Cohen et al., 1994).
- Mentalization-informed therapy has been used to improve psychosocial functioning and emotion regulation in this population (e.g., Goodman et al., 2015; Malberg, 2021; Ramires et al., 2020)
- Could promoting mentalization be the “secret sauce” that will improve these children’s socioemotional health?

Process Measure Used: Child Psychotherapy Q-Set (CPQ; Schneider, 2004)

- Definition of psychotherapy process restricted to a vocabulary of 100 items characterizing process
 - Common vocabulary to articulate different types of process
 - Arrangement of items can serve as operational definition of a treatment model's process
- Q-methodology mechanics
 - 100 items distributed in nine piles, forming a normal distribution (5-8-12-16-18-16-12-8-5)
 - CPQ applied to full 45-minute video-recorded sessions
 - CPQ applied to sessions of children ages 3 – 13
 - Three categories of items
 - Therapist attitudes and behaviors (1/3)
 - Patient attitudes and behaviors (1/3)
 - Therapist—patient interactions (1/3)

Goodman Lab

- Participants
 - 6-year-old boy diagnosed with HFASD (Goodman & Athey-Lloyd, 2011)
 - Two graduate student therapists
 - First year of treatment = female therapist
 - Second year of treatment = male therapist
 - Clinical supervisor = male psychoanalyst licensed for 16 years

Goodman Lab (continued)

- Measures
 - CPQ (Schneider, 2004)
 - Mean interrater reliability of .77 (range = .53 – .84)
 - Social Cognition and Object Relations Scale Q-Set (SCORS-Q; Westen, 1996)
 - Mean interrater reliability of .86 (range = .67 – .79)
 - Childhood Autism Rating Scale-2-HF (2nd ed.; CARS-2-HF; Schopler et al., 2010)
 - Mean interrater reliability of .75 (range = .53 – .93)
 - Segmented Working Alliance Inventory-Observer Form (S-WAI-O; Berk et al., 2010)
 - Mean interrater reliability of .87 (range = .52 – .97)
 - California Child Q-Set (CCQ; Block, 1980; J. H. Block & Block, 1980)
 - Mean interrater reliability of .71 (range = .48 – .97)
 - California Adult Q-Set (CAQ; Block, 1978)
 - Mean interrater reliability of .85 (range = .67 – .95)

Goodman Lab (continued)

- Procedure
 - Once weekly individual, mentalization-informed child psychotherapy
 - $N = 52$ sessions over two-year period
 - CPQ used to assess interaction structures (ISs) and session prototypes
 - SCORS-Q used to assess understanding of social causality observed in session
 - CARS-2-HF used to assess HFASD symptoms observed in session
 - S-WAI-O used to assess working alliance, ruptures, and repairs observed in session
 - CCQ used to assess child prosocial features observed in session
 - CAQ used to assess therapist ego-resiliency observed in session
 - All video-recorded sessions were coded (CPQ, CARS-2-HF, S-WAI-O) or transcribed verbatim and coded (SCORS-Q, CCQ, CAQ)

Goodman Lab (continued)

Results of 2011 Article (Goodman & Athey-Lloyd, 2011)

Table 1. Ten Most Characteristic CPQ Items Across 52 Sessions

CPQ Item	Mean
Item 31: T asks for more information or elaboration.	8.25
Item 65: T clarifies, restates, or rephrases C's communication.	8.07
Item 97: T emphasizes verbalization of internal states and affects.	8.01
Item 71: C engages in make-believe play.	7.74
Item 77: T's interaction with the C is sensitive to C's level of development.	7.58
Item 6: T is sensitive to C's feelings.	7.47
Item 3: T's remarks are aimed at encouraging C's speech.	7.31
Item 29: The quality of C's play is fluid, absorbed.	7.21
Item 81: T emphasizes feelings to help C experience them more deeply.	7.21
Item 28: T accurately perceives the therapeutic process.	7.15

Table 2. Ten Least Characteristic CPQ Items Across 52 Sessions

CPQ Item	Mean
Item 9: T is nonresponsive (vs. affectively engaged).	1.53
Item 18: T is judgmental and conveys lack of acceptance.	2.13
Item 17: T actively exerts control over the interaction.	2.72
Item 89: T acts to strengthen defenses.	2.75
Item 57: T attempts to modify distortions in C's beliefs.	2.78
Item 37: T behaves in a didactic manner.	2.84
Item 95: C's play lacks spontaneity.	2.88
Item 51: C attributes own characteristics or feelings to T.	3.30
Item 55: T directly rewards desirable behaviors.	3.33
Item 32: C achieves a new understanding or insight.	3.34

Goodman Lab (continued)

Results of 2011 Article (continued)

- Four interaction structures (patterns of reciprocal therapist-patient interaction) identified through principal components factor analysis

Table 3. Goodman and Athey-Lloyd (2011) Interaction Structures

1. Reassuring, Supportive, Nondirective Therapist with a Compliant, Curious Child Building Insight and Positive Feelings ($\alpha = .91$)
2. Helpful, Mentalizing, Confident Therapist with Expressive, Comfortable, Help-seeking Child ($\alpha = .92$)
3. Judgmental, Misattuned Therapist with Distant, Emotionally Disconnected, Misunderstood Child ($\alpha = .88$)
4. Accepting Therapist with Playful, Competitive Child ($\alpha = .82$)

- IS 3 increased, while IS 1 decreased across both years
- IS 3 increased, while IS 1 decreased across year 1
- IS 1 and IS 4 both decreased across year 2
- IS 4 was more prominent than IS 2, which was more prominent than IS 1 and IS 3

Goodman Lab (continued)

Results of 2015 Article (Goodman, Reed, & Athey-Lloyd, 2015)

- Adherence to mentalizing principles (as determined by correlating session ratings with expert prototypical ratings of mentalizing principles using the CPQ) = no change over time
- Adherence to play therapy principles decreased over time

Goodman Lab (continued)

Results of 2017 Article (Goodman, Chung, Fischel, & Athey-Lloyd, 2017)

- We used simulation modeling analysis (SMA)—time-series analysis
- Therapist 1: three weeks after therapist-patient rupture, HFASD symptoms *decreased*
- Therapist 2: two weeks after therapist-patient repair, adherence to play therapy process increased
- Therapist 2: one week after HFASD symptoms increased, working alliance worsened, and adherence to play therapy process decreased

Goodman Lab (continued)

Results of Julia Lynford's Dissertation (2019)

- Child prosocial features (CCQ) are negatively correlated with IS 3 (“judgmental, misattuned therapist with distant, emotionally disconnected, misunderstood child”)
- Child prosocial features are positively correlated with adherence to mentalizing and play therapy process
- Therapist ego-resiliency (CAQ) is also negatively correlated with IS 3
- Therapist ego-resiliency is positively correlated with child prosocial features and adherence to mentalizing and play therapy process

Goodman Lab (continued)

Results of 2022 Presentation (Goodman, Youniss, Blum, & Dent, 2022)

- Child's understanding of social causality (SCORS-Q) is negatively correlated with HFASD symptoms
- Therapist as benevolent force, obviating need to rely on distance-promoting HFASD symptoms

Ramires Lab (Brazil)

- Participants
 - 8-year-old boy diagnosed with HFASD
 - Master's-level clinical psychologist = female therapist
 - Clinical supervisor = female psychoanalytic therapist licensed for 30 years

Ramires Lab (continued)

- Measures
 - CPQ (Schneider, 2004)
 - Mean interrater reliability of .71 (range = .58 – .82)
 - Rorschach Comprehensive System (Exner, 2003)
 - Mean interrater reliability of .86 (range = .81 – .93)

Ramires Lab (continued)

- Procedure
 - Once weekly individual, mentalization-informed child psychotherapy (sessions 1-82)
 - Twice weekly (sessions 83-151)
 - Over 43-month period
 - CPQ used to assess interaction structures and adherence to session prototypes
 - Rorschach Comprehensive System used to assess implicit mentalization at beginning and end of treatment
 - Every other video-recorded session was coded with the CPQ ($N = 75$ out of 121 sessions)

Ramires Lab (continued)

Results of 2015 Article (Ramires, Carvalho, Schmidt, Fiorini, & Goodman, 2015)

Table 4. Ten Most Characteristic CPQ Items of Peter's Psychotherapy

CPQ Item	Mean
Item 23: Therapy session has a specific focus or theme.	8.22
Item 39: C is competitive, rivals with T.	7.86
Item 56: C is distant from his or her feelings.	7.82
Item 58: C appears willing to examine thoughts, reactions, or motivations related to problems.	7.75
Item 64: C draws T into play.	7.68
Item 95: C's play lacks spontaneity.	7.45
Item 88: Material of the hour is meaningful and relevant to C's conflicts.	7.01
Item 40: C communicates without affect.	6.93
Item 6: T is sensitive to C's feelings.	6.92
Item 77: T's interaction with C is sensitive to C's level of development.	6.70

Table 5. Ten Least Characteristic CPQ Items of Peter's Psychotherapy

CPQ Item	Mean
Item 71: C engages in make-believe play.	2.13
Item 53: C conveys awareness of own internal difficulties.	2.69
Item 18: T is judgmental and conveys lack of acceptance.	2.69
Item 32: C achieves a new understanding or insight.	2.79
Item 17: T actively exerts control over the interaction.	2.85
Item 10: C seeks greater intimacy with the T.	2.92
Item 36: T points out C's use of defenses.	2.98
Item 46: T interprets the meaning of C's play.	3.10
Item 9: T is nonresponsive [vs. affectively engaged].	3.14
Item 5: C has difficulty understanding T's comments.	3.56

Table 1. Ten Most Characteristic CPQ Items Across 52 Sessions

CPQ Item	Mean
Item 31: T asks for more information or elaboration.	8.25
Item 65: T clarifies, restates, or rephrases C's communication.	8.07
Item 97: T emphasizes verbalization of internal states and affects.	8.01
Item 71: C engages in make-believe play.	7.74
Item 77: T's interaction with the C is sensitive to C's level of development.	7.58
Item 6: T is sensitive to C's feelings.	7.47
Item 3: T's remarks are aimed at encouraging C's speech.	7.31
Item 29: The quality of C's play is fluid, absorbed.	7.21
Item 81: T emphasizes feelings to help C experience them more deeply.	7.21
Item 28: T accurately perceives the therapeutic process.	7.15

Table 2. Ten Least Characteristic CPQ Items Across 52 Sessions

CPQ Item	Mean
Item 9: T is nonresponsive (vs. affectively engaged).	1.53
Item 18: T is judgmental and conveys lack of acceptance.	2.13
Item 17: T actively exerts control over the interaction.	2.72
Item 89: T acts to strengthen defenses.	2.75
Item 57: T attempts to modify distortions in C's beliefs.	2.78
Item 37: T behaves in a didactic manner.	2.84
Item 95: C's play lacks spontaneity.	2.88
Item 51: C attributes own characteristics or feelings to T.	3.30
Item 55: T directly rewards desirable behaviors.	3.33
Item 32: C achieves a new understanding or insight.	3.34

Ramires Lab (continued)

Results of 2015 Article (continued)

Four Interaction Structures

**Table 6. Ramires et al. (2015, 2020)
Interaction Structures**

1. Resistant and Defensive Child with Uncertain, Unresponsive and Didactic Therapist ($\alpha = .95$)
2. Active, Confident and Lively Child, Competing with Connected and Reflective Therapist ($\alpha = .88$)
3. Articulated Child Seeking Proximity with an Active and Not Neutral Therapist ($\alpha = .74$)
4. Provocative, Hostile Child with Reassuring and Accepting Therapist ($\alpha = .65$)

**Table 3. Goodman and Athey-Lloyd (2011)
Interaction Structures**

1. Reassuring, Supportive, Nondirective Therapist with a Compliant, Curious Child Building Insight and Positive Feelings ($\alpha = .91$)
2. Helpful, Mentalizing, Confident Therapist with Expressive, Comfortable, Help-seeking Child ($\alpha = .92$)
3. Judgmental, Misattuned Therapist with Distant, Emotionally Disconnected, Misunderstood Child ($\alpha = .88$)
4. Accepting Therapist with Playful, Competitive Child ($\alpha = .82$)

**Table 7. Goodman (2015) Interaction
Structures**

1. Sensitive, Nonjudgmental Therapist with Motivated, Insightful, Admiring Child ($\alpha = .91$)
2. Interpretive Therapist with Passive-aggressive Child ($\alpha = .90$)
3. Humorous, Confident Therapist with Animated, Playful Child ($\alpha = .90$)
4. Structuring, Accommodating Therapist with Difficult, Angry Child ($\alpha = .84$)

Ramires Lab (continued)

Results of 2019 Article (Carvalho, Goodman, & Ramires, 2019)

- Adherence to mentalizing principles increased over time
- However, therapist's directly rewarding desirable behaviors became *more* characteristic of sessions
- Therapist's directly reassuring child became *more* characteristic of sessions

Ramires Lab (continued)

Results of 2020 Article (Ramires, Carvalho, Polli, Goodman, & Midgley, 2020)

- Comparison of three children (adjustment disorder with anxiety, disruptive mood dysregulation disorder, HFASD)
- Child with HFASD had most significant implicit mentalization impairments at baseline (Rorschach)
- IS 2 increased, while IS 1 decreased

Table 6. Ramires et al. (2015, 2020) Interaction Structures

1. Resistant and Defensive Child with Uncertain, Unresponsive and Didactic Therapist ($\alpha = .95$)
 2. Active, Confident and Lively Child, Competing with Connected and Reflective Therapist ($\alpha = .88$)
 3. Articulated Child Seeking Proximity with an Active and Not Neutral Therapist ($\alpha = .74$)
 4. Provocative, Hostile Child with Reassuring and Accepting Therapist ($\alpha = .65$)
- Adherence to mentalizing principles might be more important for mentalization-impaired children such as those with HFASD
 - More directive strategies used during moments of no mentalization

Conclusions About the Process Across These Two Children

- Most and least characteristic items appear somewhat different
- Nevertheless, the four interaction structures appear similar
- With more experienced therapist, adherence to mentalizing principles increased over time
 - Children with HFASD might require more alliance-building and support
 - Initial treatment phase—directly rewarding, directly reassuring
- Autism symptom changes can trigger changes in therapeutic alliance and session adherence
- Therapist ego-resiliency, child prosocial features, and adherence to mentalizing principles are all associated with each other
- Child's understanding of social causality might obviate need to rely on distance-promoting HFASD symptoms
- Children with HFASD can react negatively to therapist-initiated separation

Limitations

- Single-case studies (waiting for aggregation; Jones, 2000)
- Many variables come from same source—recycled session video-recordings
 - Informants—parents, teachers, therapist, child
 - Shared variance—increase in Type I error
- Inexperienced therapists (Goodman's lab)
- HFASD symptoms assessed only in sessions

Future Directions for Research

- Do changes in interaction structures in child's treatment precede or follow changes in interaction structures in a parent's treatment?
- Do interaction structures and adherence to session prototypes change according to treatment phase?
 - Do supportive interaction structures and session prototypes become less prominent?
 - Do mentalizing interaction structures and session prototypes become more prominent?
 - Can routine assessment procedures and candidate and student research coding teams become embedded in a child psychotherapy clinic?

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Baron-Cohen, S., Ring, H., Moriarty, J., Schmitz, B., Costa, D., & Ell, P. (1994). Recognition of mental state terms. Clinical findings in children with autism and a functional neuroimaging study of normal adults. *British Journal of Psychiatry*, *165*, 640-649.
- Berk, L., Eubanks-Carter, C., Muran, J. C., & Safran, J. D. (2010). *Segmented Working Alliance Observer Based Measure (S-WAI-O) manual*. (Unpublished training manual). Beth Israel Hospital, New York, NY.
- Block, J. (1978). *The Q-sort method in personality assessment and psychiatric research*. Palo Alto, CA: Consulting Psychologists. (Original work published 1961)
- Block, J. (1980). *The California Child Q-Set*. Palo Alto, CA: Consulting Psychologists.
- Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behavior. In W. A. Collins (Ed.), *Minnesota Symposia on Child Psychology* (Vol. 13, pp. 39-101). Hillsdale, NJ: Erlbaum.
- Carvalho, C., Goodman, G., & Ramires, V. R. R. (2019). Mentalization in child psychodynamic psychotherapy. *British Journal of Psychotherapy*, *35*, 468–483.
- Exner, J. E., Jr. (2003). *The Rorschach: A Comprehensive System* (4th ed.). New York, NY: Wiley.
- Fonagy, P. (1991). Thinking about thinking: Some clinical and theoretical considerations in the treatment of a borderline patient. *International Journal of Psycho-Analysis*, *72*, 639-656.

References (continued)

- Goodman, G. (2015). Interaction structures between a child and two therapists in the psychodynamic treatment of a child with borderline personality disorder. *Journal of Child Psychotherapy, 41*, 141-161.
- Goodman, G., & Athey-Lloyd, L. (2011). Interaction structures between a child and two therapists in the psychodynamic treatment of a child with Asperger's disorder. *Journal of Child Psychotherapy, 37*, 311-326.
- Goodman, G., Chung, H., Fischel, L., & Athey-Lloyd, L. (2017). Simulation modeling analysis of sequential relations among therapeutic alliance, symptoms, and adherence to child-centered play therapy between a child with autism spectrum disorder and two therapists. *Clinical Child Psychology and Psychiatry, 22*, 455-466.
- Goodman, G., Reed, P., & Athey-Lloyd, L. (2015). Mentalization and play therapy processes between two therapists and a child with Asperger's disorder. *International Journal of Play Therapy, 24*, 13-29.
- Goodman, G., Youniss, A., Blum, B., & Dent, V. (2022, July). *Understanding social causality as a mediator of the relation between adherence to mentalizing principles and autism symptoms in the treatment of a 6-year-old boy*. Paper presented at the meeting of the Society for Psychotherapy Research, Denver, CO.
- Jones, E. E. (2000). *Therapeutic action: A guide to psychoanalytic therapy*. Northvale, NJ: Jason Aronson.
- Kestenbaum, C. (2008). Autism, Asperger's and other oddities....Thoughts about treatment approaches. *Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry, 36*(2), 279-294.

References (continued)

- Khouzam, H., El-Gabalawi, F., Pirwani, N., & Priest, F. (2004). Asperger's disorder: A review of its diagnosis and treatment. *Comprehensive Psychiatry*, *45*(3), 184–191. [doi:10.1016/j.comppsy.2004.02.004](https://doi.org/10.1016/j.comppsy.2004.02.004)
- Lynford, J. (2019). *The contributions of therapist personality and child prosocial behavior in the play therapy of a boy with high-functioning autism spectrum disorder*. Unpublished doctoral dissertation, Clinical Psychology Doctoral Program, Long Island University, Brookville, NY.
- Malberg, N. (2021). Working with autistic children and their families from a Mentalization Based Therapy for Children (MBT-C) approach. *Psychoanalytic Perspectives: An International Journal of Integration and Innovation*, *18*, 22-42.
- Ramires, V. R. R., Carvalho, C., Polli, R. G., Goodman, G., & Midgley, N. (2020). The therapeutic process in psychodynamic therapy with children with different capacities for mentalizing. *Journal of Infant, Child, and Adolescent Psychotherapy*, *19*, 358-370.
- Ramires, V. R. R., Carvalho, C., Schmidt, F. M. D., Fiorini, G. P., & Goodman, G. (2015). Interaction structures in the psychodynamic therapy of a boy diagnosed with Asperger's disorder: A single-case study. *Research in Psychotherapy: Psychopathology, Process and Outcome*, *18*, 129-140.
- Schneider, C. (2004). The development of the child psychotherapy Q-set. (Doctoral dissertation, University of California, Berkeley, 2004). *Dissertation Abstracts International*, *65*(2-B), 1039.
- Schopler, E., van Bourgondien, M. E., Wellman, G. J., & Love, S. R. (2010). *Childhood Autism Rating Scale (CARS2) manual* (2nd ed.). Los Angeles, CA: Western Psychological Services.
- Westen, D. (1996). *Social Cognition and Object Relations Scale Q-Sort (SCORS-Q) for interview and narrative data*. Unpublished manuscript, Dept. of Psychiatry, Cambridge Hospital and Harvard Medical School, Cambridge, MA.