

Parent-Child Mutuality & Relationship-based Parenting: Evaluating Circle of Security- Parenting[®] Program Effectiveness

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THESIS DEFENSE

Introduction & Background

PART 01



Purpose

01

PARENTING

Parenting plays a crucial role in early childhood development.

02

ATTACHMENT

The initial relationship patterns between a caregiver and child establish the foundation of attachment

03

SECURITY

A lack of attachment in the parent-child dyad can lead to externalizing, internalizing, and/or maladaptive behavioural outcomes

Fearon et al., 2010; Kochanska et al., 2018;
Regueiro et al., 2020; Zeynel & Uzer, 2020

Circle of Security

AN ATTACHMENT FOCUSED
INTERVENTION

- There is an increasing need for parenting support that will enable caregivers to establish and maintain secure attachment relationships with their children.
- Circle of Security (COS) is both a framework that depicts attachment relationships between caregiver and child, and an attachment-based parenting intervention rooted in the strengths-focused approach (Powell et al., 2014)
- COS is available as an intensive 20-week psychotherapeutic program known as the Circle of Security Intensive (COS-I), and an 8-week preventative intervention known as Circle of Security Parenting—(COS-P).

Mutuality & Attachment

MEASURING RELATIONSHIP
QUALITY

- An important antecedent to secure attachment is caregiver contingent responsiveness which is explicitly measured by several constructs including sensitivity and mutuality (Ainsworth et al., 1978; Bornstein & Manian, 2013; Bowlby, 1969; Dunst & Kassow, 2008)
- Mutuality in the parent-child dyad is described as “the formation and maintenance of emotionally warm, mutually responsive and well-synchronized interactions” (Deater-Deckard & Petrill, 2004, p. 1171)
- Examining changes in mutuality may provide additional support for the use of attachment-focused interventions, such as COS-P, to increase parenting competences that contribute to increased attachment security

Positive Parenting & Attachment

MEASURING RELATIONSHIP
QUALITY

- Various dimensions of parenting have been operationalized to understand the influence parenting has in child development outcomes. Warmth and Control are frequently used as measures of parenting quality (Dallaire & Weinraub, 2005; Kuppens & Ceulemans, 2019; Power, 2013)
- Warmth typically includes measures of the affective quality of parenting practices whereas control refers to measures of demandingness and/or disciplinary practices utilized by parents (Power, 2013)
- Examining changes in parent positivity and negativity can enhance COS-P—researchers’ understanding of the specific parenting dimensions the intervention may influence, as well as the populations most likely to benefit from the program

Review of Related Literature

PART 02

Related Literature

01

FIRST HIGHLIGHT

Most of the research related to COSP—is focused on the 20 week intervention rather than the 8 week COSP—which is more accessible

02

SECOND HIGHLIGHT

Recent RCT's showed no change in attachment security after COSP—, however, changes in parental responsiveness, emotional availability, and caregiver representations of their child improved (Cassidy et al, 20 17; Risholm Mothander et al., 20 18)

03

THIRD HIGHLIGHT

Mutuality has never been measured as an independent construct within the COSP® literature

04

FOURTH HIGHLIGHT

Limited observational methods have been employed in COSP—research. Most observational research tools require highly specialized training and are both time and resource intensive to administer (Funamoto & Rinaldi, 20 14).

Research Questions

1.

Is there a change in observed parent-child mutuality as measured by the PARCHISY global rating scale following an 8-week COSP \acute{c} intervention?

2 .

Is there a change in observed parent positivity or negativity behaviours as measured by the PARCHISY global rating scale following an 8 -week COSP \acute{c} intervention?

Research Hypotheses

1.

There will be an increase in dyadic mutuality across tasks from T1 to T2

2 .

There will be an increase in parent positivity across tasks from T1 to T2

3 .

There will be a decrease in parent negativity across tasks from T1 to T2

Methods

PART 03

Methodology

RESEARCH DESIGN



Sample: Convenience sample recruited in Edmonton and rural Alberta



Measures: Observational measurement of parent-child interaction using PARCHISY



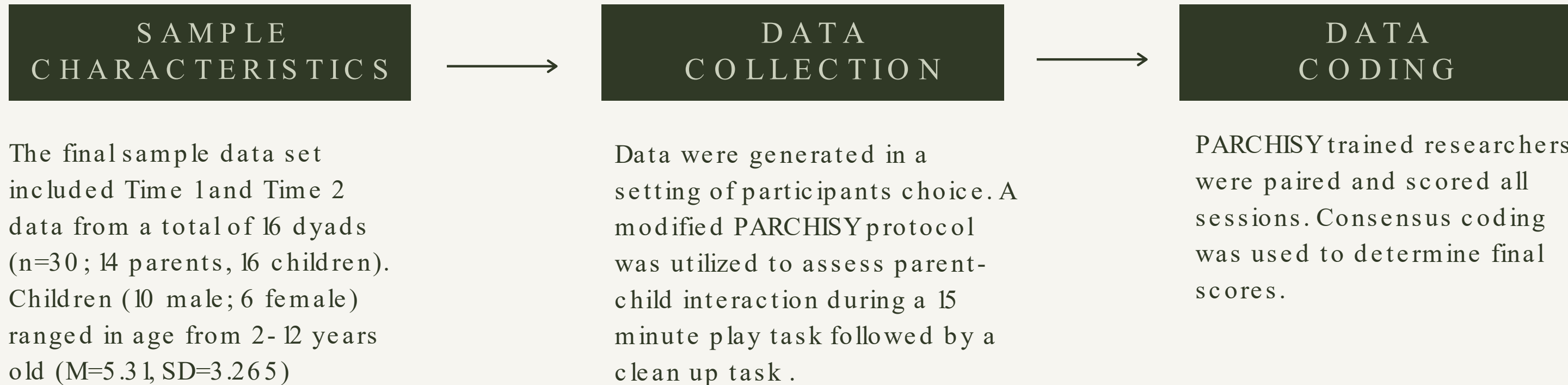
Design: Quasi-experimental pre-test/post-test Single group

PARCHISY & Study Measures

- 18 item global rating scale consisting of 3 subsections measuring parent/child/dyad behaviours. Items are rated on a 7-point Likert-type scale. (Deater-Deckard, 2000; Deater-Deckard, Pylas, & Petrill, 1997)
- Behaviours of interest: *parent responsiveness to child, child responsiveness to parent, dyad cooperation, dyad reciprocity, parent positive control, parent negative control, parent positive affect, parent negative affect, and dyadic conflict.*
- *Dyadic mutuality* is a composite score created from dyadic reciprocity, dyadic cooperation, parent responsiveness to child, and child responsiveness to parent.
- *Parent positivity* is a composite score of parent positive control and parent positive affect while *parent negativity* is a composite score of parent negative control and parent negative affect.
- Requires significantly less resources than many observational measurement tools and therefore has potential to be more widely adapted in the measurement of parent-child mutuality.

Data Generation

MANUALIZED OBSERVATION DATA



Methodology

VALIDITY & RELIABILITY



Data Analysis

MANUALIZED OBSERVATION DATA

DATA CLEANING

Cases were excluded based on attrition at T1 or incomplete intervention sessions. The assumption of normally distributed difference scores was examined for each of the variables of interest.



DATA ANALYSIS

Paired t-tests were used to compare sample means before and after COS-P intervention for the dyadic mutuality and parent positivity hypotheses and Wilcoxon Signed-Ranks was used for the negativity score during clean up.

Results

PART 04

Quantitative Results

RESEARCH FINDINGS
AND HIGHLIGHTS



01

DYADIC MUTUALITY

Statistically significant increase from T1 to T2 during the Clean up task, with a moderate effect size

02

PARENT POSITIVITY

Statistically significant increase from T1 to T2 during both play and clean up task, with large effect size for both tasks

03

PARENT NEGATIVITY

No statistically significant changes across tasks and small effect sizes

Significance of Results

0 1

0 2

0 3

0 4



This study adds support for the use of the COS-P— as a broadly applied community-level intervention for parents and their children and contributes to the growing body of literature exploring who might benefit most from the COS-P—intervention.

COSP—may influence the positive quality of parent-child interaction and subsequently enhance mutuality between parents and their children particularly during tasks that can challenge the dyadic relationship.

Support for the implementation of PARCHISY as an observational measurement strategy for researchers interested in examining dyadic changes that might be likely to occur following participation in COSP—.

Supports the recommendation that COSP—research can benefit from utilizing observational methods to examine changes in parenting quality across various tasks.

Limitations of Study

0 1

0 2

0 3

0 4



Lack of control group, small sample size, and timing of post-intervention follow up are limitations to current study. Pilot and exploratory nature must be emphasized.

Generalizability of findings may be limited due to the potential for sample bias as a result of convenience sampling.

Fidelity of all COSP—offerings at time of intervention delivery and dosing of COSP—classes at initial time of data gathering.

No other observational measures used alongside the PARCHISY to assess the quality of the dyadic interactions. No precedent of PARCHISY being used to assess parenting intervention efficacy.

Conclusion

PART 05

Study highlights

Significant discovery

Interpretation of findings

- OBSERVED PARENT-CHILD MUTUALITY & PARCHISY

Addresses gap in COSP—literature by examining changes in parent-child interaction and dyadic mutuality through observational measurement using PARCHISY.

- IDENTIFIED CHANGES IN PARENTING QUALITY & MUTUALITY

The results show preliminary support that COSP—may facilitate changes in parental warmth and control as well as increased dyadic mutuality during a challenging task.

- PILOT STUDY & CAUSAL OUTCOMES

No causal interpretations can be made, however, moderate and large effect sizes for changes in mutuality during clean up, and parent positivity during both play and clean up, suggest practical significance that should be explored in a future RCT.

Implications of the research

Areas of improvement

PRACTICAL APPLICATIONS

- This research adds to the growing body of COSP— literature addressing what impact COSP—may have on different populations.
- The use of PARCHISY as a scalable observational measurement tool and an examination of mutuality as a construct of interest, can be emphasized in future studies.

NOTES FOR FUTURE RESEARCH

Future COSP—research can consider:

- Implementing rigorous RCT design to ensure causal interpretations are possible.
- Longitudinal studies to examine the long-lasting changes that may occur following COSP— programming.
- Multiple sources of data collection including interview and self-report methods.
- Comparing observational instrumentation tools to further support observational findings.



Thank You!

References

PART 06

References

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Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Lawrence Erlbaum.

Bornstein, M. H., & Manian, N. (2013). Maternal responsiveness and sensitivity reconsidered: Some is more. *Development and Psychopathology*, 25(4 PART 1), 957–971. <https://doi.org/10.1017/S0954579413000308>

Bowlby, J. (1969). *Attachment and Loss, Vol. I: Attachment*. Attachment and Loss. New York: Basic Books.

Cassidy, J., Brett, B. B., Gross, J. T., Stern, J. A., Martin, D., Mohr, J., et al. (2017). Circle of Security—Parenting (COS-P): A randomized controlled trial in Head Start. *Developmental Psychopathology*, 29, 651–673.

Dallaire, D. H., & Weinraub, M. (2005). The stability of parenting behaviors over the first 6 years of life. *Early Childhood Research Quarterly*, 20(2), 201–219. doi:10.1016/j.jecresq.2005.04.008

Deater-Deckard, K., Pylas, M.V., & Petrill, S. (1997). *Parent–Child Interaction System (PARCHISY)*. London: Institute of Psychiatry. <https://doi.org/10.1080/0269993120151013087>

Deater-Deckard, K., & O'Connor, T. G. (2000). Parent-child mutuality in early childhood: Two behavioral genetic studies. *Developmental Psychology*, 36, 561–570. doi: 10.1037/00121649.36.5.561

Deater-Deckard, K., & Petrill, S. A. (2004). Parent-child dyadic mutuality and child behavior problems: An investigation of gene-environment processes. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 45(6), 1171–1179. <https://doi.org/10.1111/j.1469-7610.2004.00309.x>

Doane, G., & Varcoe, C. (2013). Relational practice and nursing obligations. In W.K. Cody (Ed.), *Philosophical and theoretical perspectives for advanced nursing practice* (5th ed., pp. 201–219). Burlington, MA: Jones and Bartlett.

Dunst, C. J., & Kassow, D. Z. (n.d.). *Caregiver Sensitivity, Contingent Social Responsiveness, and Secure Infant Attachment* (Vol. 5).

Fearon, R. P., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Lapsley, A. M., & Roisman, G. I. (2010). The significance of insecure attachment and disorganization in the development of children's externalizing behavior: A meta-analytic study. *Child Development*, 81(2), 435–456. <https://doi.org/10.1111/j.1467-8624.2009.01405.x>

Funamoto, A., & Rinaldi, C. M. (2015). Measuring parent-child mutuality: A review of current observational coding systems. *Infant Mental Health Journal*, 36(1), 3–11. <https://doi.org/10.1002/imhj.21481>

Hinde, R. A. & Stevenson-Hinde, J. (1987). Interpersonal relationships and child development. *Developmental Review*, 7, 1–21.

Huber, A., Hawkins, E and Cooper, G. (2018) Circle of Security. In Lebow J., Chambers A., Breunlin D. (eds) *Encyclopedia of Couple and Family Therapy*, Springer.

Kim, S., & Kochanska, G. (2012). Child temperament moderates effects of parent-child mutuality on self-regulation: A relationship-based path for emotionally negative infants. *Child Development*, 83(4), 1275–1289. doi: 10.1111/j.1467-8624.2012.01778.x

References

- Kochanska, G. (1997). Mutually responsive orientation between mothers and their young children: Implications for early socialization. *Child Development*, 68(1), 94-112. 27 / 27
- Kochanska, G., & Aksan, N. (2004). Development of mutual responsiveness between parents and their young children. *Child development*, 75(6), 1657–1676. <https://doi.org/10.1111/j.1467-8624.2004.00808.x>
- Kochanska, G., Aksan, N., Prisco, T. R., & Adams, E. E. (2008). Mother–child and father–child mutually responsive orientation in the first 2 years and children’s outcomes at preschool age: Mechanisms of influence. *Child Development*, 79, 30-44. doi: 10.1111/j.1467-8624.2007.01109.x
- Kochanska, G., Boldt, L. J., & Goffin, K. C. (2019). Early Relational Experience: A Foundation for the Unfolding Dynamics of Parent–Child Socialization. *Child Development Perspectives*, 13(1), 41–47. <https://doi.org/10.1111/cdep.12308>
- Kuczynski, L. (2003). Beyond bidirectionality: Bilateral conceptual frameworks for understanding dynamics in parent-child relations. In L. Kuczynski (Ed.), *Handbook of dynamics in parent-child relations* (pp. 3-24). Thousand Oaks: Sage Publications, Inc
- Kuppens, S., & Ceulemans, E. (2019). Parenting styles: A closer look at a well-known concept. *Journal of Child & Family Studies*, 28(1), 168–181. <https://doi.org/10.1007/s10826-018-1242-x>
- Lindsay, E., Mize, J., & Pettit, G. (1997). Mutuality in parent-child play: consequences for children’s peer competence. *Journal of Social and Personal Relationships*, 14(4), 523–538.
- Matias, C., O’connor, T. G., Futh, A., & Scott, S. (2014). Observational attachment theory-based parenting measures predict children’s attachment narratives independently from social learning theory-based measures. *Attachment & Human Development*, 16(1), 77–92. <https://doi.org/10.1080/14616734.2013.851333>
- Powell, B., Cooper, G., Hoffman, K., & Marvin, B. (2013). *The Circle of Security Intervention: Enhancing attachment in early parent-child relationships*. New York, NY: Guilford Press.
- Power T. G. (2013). Parenting dimensions and styles: a brief history and recommendations for future research. *Childhood obesity*, 9(s 1), S14–S21. <https://doi.org/10.1089/chi.2013.0034>
- Regueiro, S., Matte-Gagné, C., & Bernier, A. (2020). Patterns of growth in executive functioning during school years: Contributions of early mother–child attachment security and maternal autonomy support. *Journal of Experimental Child Psychology*, 200, 104934. <https://doi.org/10.1016/j.jecp.2020.104934>
- Stevenson-Hinde, J. (1990). Attachment Within Family Systems: An Overview. *Infant Mental Health Journal*, 11(3), 218–227.
- Van Der Voort, A., Juffer, F., & Bakermans-Kranenburg, M. J. (2014). Sensitive parenting is the foundation for secure attachment relationships and positive social-emotional development of children. *Journal of Children’s Services*, 9(2), 165–176. <https://doi.org/10.1108/JCS-12-2013-0038>
- Wright, L. M., Leahey, M. (1994). *Nurses and families: A guide to family assessment and intervention*, 2nd ed. Philadelphia: F.A. Davis
- Zeynel, Z., & Uzer, T. (2020). Adverse childhood experiences lead to trans-generational transmission of early maladaptive schemas. *Child Abuse and Neglect*, 99(October 2019), 104235. <https://doi.org/10.1016/j.chiabu.2019.104235>