Sources of Information about Supporting Early Childhood Co-Regulation

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Abstract

This *CASEmaker* bibliography includes selected references and information about supporting early childhood coregulation. Key characteristics of this social process start to develop during infancy and continue to change as a toddler develops self-regulation skills. Parents, family members, and other responsive caregivers influence a child's long-term ability to develop self-regulation skills and co-regulate effectively with others. Research provides evidence of effective strategies adults can use to help children develop social-emotional competencies through effective co-regulation. When a child experiences positive co-regulation, their emotional and behavioral development are positively impacted.

Introduction

Starting at birth, a child experiences an array of emotions and feelings, and in response, produces behaviors they may not understand. A common goal of parenting and educating young children is to help them develop their ability to control and direct their emotions. thoughts, and actions. Young children often learn this ability through the process of co-regulation with a caring, responsive adult. Co-regulating relationships evolve over time, with the child needing less support from the caregiver as the child matures and develops socialemotional competencies. Interactions between a caregiver and child impact a child's regulatory development, and the caregiver-child co-regulation patterns can influence the child's social-emotional outcomes positively or negatively (Lobo & Lunkenheimer, 2020). This CASEmaker provides selected references and information that define co-regulation, describes key roles of the child and parent in co-regulation, provides parenting strategies for helping the co-regulation process used to facilitate the child's social-emotional competencies, and describes positive child outcomes associated with co-regulation.

Definition of Co-Regulation

Broadly, co-regulation is a social process that occurs throughout the lifespan by which individuals attempt to maintain a balance between them in terms of respect for the individual emotional state and consideration for each

other's wishes and needs, along with anticipating their actions (Evans & Porter, 2009; Kostøl & Kovač, 2024). Co-regulation can vary based on the individuals and situations (Evans & Porter, 2009). The interactions may be symmetrical with the individuals sharing a joint focus of attention and mutually creating new actions in succession while interacting and anticipating the actions of the other. In contrast, the interactions may be disruptive with one individual attempting to disrupt the activity of the other in an inappropriate manner causing misinterpretation of the other's intent for interaction, or disregard for it. Early childhood professionals often discuss co-regulation within this second context whereby the child's ability to regulate becomes disrupted and the adult intentionally uses their calm, well-regulated nervous system to help the child calm and re-regulate.

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Developing co-regulation is closely related to developing self-regulation. Over time, as children practice reregulating with support from an adult, they learn to regulate themselves. Young children are dependent on parents and caregivers for their survival, and selfregulation emerges within the relational context of coregulation between children and their caregivers, with the caregiver providing most of the regulatory support at first. Over time, as the child's competencies increase, they take on a larger role within the co-regulation relationship when facilitated by caregivers intentionally modeling calm regulated interactions (Landry et al., 2000). Infants and young children also develop their knowledge of emotion by learning to make inferences about people's dynamically changing facial and vocal expressions in the context of their everyday lives (LoBue & Ogren, 2022). Through co-regulation children develop their understanding of emotions, which is usually stable by the age of 5 years (LoBue & Ogren, 2022). The following articles provide general information about co-regulation:

Kostøl, E. M. F., & Kovač, V. B. (2024). Co-regulation in dyadic parent–child relationships: A video analysis of well-functioning interactions. *Early Child Development and Care*, 194(1), 72-86. https://doi.org/10.1080/03004430.2023.2282357

LoBue, V., & Ogren, M. (2022). How the emotional environment shapes the emotional life of the child. *Policy Insights from the Behavioral and Brain Sciences*, *9*(1), 137-144. https://doi.org/10.1177/23727322211067264

Infant Stage of Co-Regulation

At birth, infants may display anger, pleasure, and sadness, along with fleeting capacity for self-comforting (Landy & Thompson, 2006). Infants are born with little or no ability to regulate their emotions or behaviors, and they depend on parents and other caregivers to help coregulate when their bodies are dysregulated or not calm. Infant cries are cues the infant needs an adult to help regulate their body or emotions (e.g., being fed to satisfy hunger or being held to ease fear) (Dossman & Gallagher, 2022). Co-regulation during infancy involves parents and caregivers supporting the infant in initial understanding and expression of feelings and behaviors and responding in predictable, supportive, and responsive ways that help the infant learn to self-regulate (Buhler-Wassmann & Hibel, 2021; LoBue & Ogren, 2022; Parlakian, 2024). Rutherford et al. (2015) describe biological connections between mothers and infants that make a mother more receptive to infant cries, able to quickly identify why their child is upset, and calm and soothe the infant faster. Young infants with limited language may copy the behaviors (smiling or cooing) of their parent which often

promotes co-regulation (Verde-Cagiao et al., 2022). Infants also co-regulate based on their expectation that a parent or caregiver will positively and appropriately respond to the infant's signals in future interactions, often resulting in secure attachment organization (Evans & Porter, 2009; Keil et al., 2024). The following references further describe infant co-regulation:

Buhler-Wassmann, A. C., & Hibel, L. C. (2021). Studying caregiver-infant co-regulation in dynamic, diverse cultural contexts: A call to action. *Infant Behavior and Development, 64,* Article 101586. https://doi.org/10.1016/j.infbeh.2021.101586

Evans, C. A., & Porter, C. L. (2009). The emergence of mother–infant co-regulation during the first year: Links to infants' developmental status and attachment. *Infant Behavior and Development*, 32(2), 147-158. https://doi.org/10.1016/j.infbeh.2008.12.005

Kiel, N., Samdan, G., Wienke, A. S., Reinelt, T., Pauen, S., Mathes, B., & Herzmann, C. (2024). From coregulation to self-regulation: Maternal soothing strategies and self-efficacy in relation to maternal reports of infant regulation at 3 and 7 months. *Infant Mental Health Journal*, 45(2), 135-152. https://doi.org/10.1002/imhj.22098

Prescription for Practice

Improve your knowledge and understanding about early childhood co-regulation and strategies that promote positive child outcomes with these resources:

Landy, S., & Thompson, E. (2006). *Pathways to competence for young children: A parenting program*. Paul H. Brookes Publishing.

Lobo, F. M., & Lunkenheimer, E. (2020). Understanding the parent-child coregulation patterns shaping child self-regulation. *Developmental Psychology*, *56*(6), 1121–1134. https://doi.org/10.1037/dev0000926

Paley, B., & Hajal, N. J. (2022). Conceptualizing emotion regulation and coregulation as family-level phenomena. *Clinical Child and Family Psychology Review*, 25(1), 19-43.

https://doi.org/10.1007/s10567-022-00378-4 Rutherford, H. J., Wallace, N. S., Laurent, H. K., & Mayes, L. C. (2015). Emotion regulation in parenthood. *Developmental Review, 36,* 1-14. https://doi.org/10.1016/j.dr.2014.12.008

Wass, S., Greenwood, E., Esposito, G., Smith, C., Necef, I., & Phillips, E. (2024). Annual Research Review: 'There, the dance is – at the still point of the turning world'– dynamic systems perspectives on coregulation and dysregulation during early development. *Journal of Child Psychology and Psychiatry*, 65(4), 481-507. https://doi.org/10.1111/jcpp.13960

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Toddler Stage of Co-Regulation

In toddlerhood, children are learning to explore and increasingly seeking independence from the adults that care for them. As toddlers create physical space between themselves and their caregiver, they transition from having their emotions primarily regulated by others to being able to increasingly regulate their own body and emotions (Kiel et al., 2020; Paley & Hajal, 2022). Although toddlers are beginning to use a variety of selfregulated behaviors, toddlers still require a degree of coregulation from their parent or other caregivers (e.g., physical assistance meeting needs, comforting and soothing for toddler's distress) (Cloud et al., 2025). The emotional climate of the family also influences the toddler's development of co-regulation through both observations and experiences (Edvoll et al., 2023). In addition to the physical comfort adults provide, toddlers learn what are appropriate and inappropriate reactions to different emotions by observing regulated caregivers' and siblings' behaviors, (Kiel et al., 2020). Toddler coregulation is further discussed in the following references:

- Cloud, Z. C., Kehoe, C. E., Treyvaud, K., Wright, B., & Havighurst, S. S. (2025). Improving emotional availability in Australian mother-toddler dyads via the Tuning in to Toddlers parenting program. *Scientific Reports, 15*(1), Article 4588. https://doi.org/10.1038/s41598-024-80827-y
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Parent and Family Influence on Co-Regulation

Early in life, parents and other family members are the primary sources of co-regulation support for the young child. Caring adults provide responsive warmth to calm the child, modeling to increase the child's self-regulation skills, and support by decreasing environmental stressors (such as insufficient sleep time, lack of predictable routine) so that stress does not exceed the child's self-regulation skills (Dossman & Gallagher, 2022). These key regulatory supports require the adult to be attuned to the child's feelings and needs and respond in ways that teach the child about appropriate emotion expression (Ogren et al., 2018) and how to use their

environment to meet their needs (Lobo & Lunkenheimer, 2020).

The responsiveness of parents and family members determine how well a child is able to develop selfregulation and co-regulation skills. The adults within the family who remain well-regulated caregivers and are not overwhelmed by their own emotions are more apt to have a positive influence of the young child's emerging selfregulation skills (Paley & Hajal, 2022). Rutherford et al. (2015) explain parents' own emotional regulation influences their ability to positively co-regulate with their child. A parent that recognizes emotions at lower intensity self-regulates easier and in turn models regulation effectively for their children (Rutherford et al., 2015). When caregivers have lower awareness of their own emotions and become overwhelmed easily, they are less likely to notice and help their child regulate their emotions, which can stunt the development of the child's social-emotional competencies (Edvoll et al., 2023; Paley & Hajal, 2022; Urizar & Muñoz, 2022; Wass et al., 2024). The child-family member relationships are bidirectional, so the child's interactive behaviors influence how family members behave in response, which influences in turn how the child interacts, and vice versa (Paley & Hajal, 2022; Wass et al., 2024). The following references discuss how parents and family members influence a child's ability to co-regulate.

- Edvoll, M., Kehoe, C. E., Trøan, A. S., Harlem, T. E., & Havighurst, S. S. (2023). The relations between parent and toddler emotion regulation. *Mental Health & Prevention*, *30*, Article 200266. https://doi.org/10.1016/j.mhp.2023.200266
- Paley, B., & Hajal, N. J. (2022). Conceptualizing emotion regulation and co-regulation as family-level phenomena. *Clinical Child and Family Psychology Review*, 25(1), 19-43. https://doi.org/10.1007/s10567-022-00378-4
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- Wass, S., Greenwood, E., Esposito, G., Smith, C., Necef, I., & Phillips, E. (2024). Annual Research Review: 'There, the dance is at the still point of the turning world'– dynamic systems perspectives on coregulation and dysregulation during early development. *Journal of Child Psychology and Psychiatry*, 65(4), 481-507. https://doi.org/10.1111/jcpp.13960



Strategies to Promote Co-Regulation

Specific responsive caregiving strategies are associated with promoting positive child self-regulation. Fundamental to these strategies is a caregiver contingently responding with clear, connected, and coordinated responses to a young child's cues or signals (Mänty et al., 2022; Paley & Hajal, 2022). Gärtner et al. (2018) suggests other parent strategies, such as displaying positive affect, acting responsively and sensitively to the child's needs, and providing the necessary scaffolds to encourage and comfort the child appropriately to avoid or reduce frustration, to help promote the child's autonomy. Several studies of parent and child co-regulation suggest parents experiencing depression, anxiety, and high levels of stress may need support co-regulating with their child to promote healthy social-emotional development (LoBue & Ogren, 2022; de Waal et al., 2023). Most often the parent needs support understanding the child's cues for needing comfort or calming when in a dysregulated state (Markowitz et al., 2023) and learning how modifying the child's environment will calm the child in an elevated arousal state (Murray et al., 2019).

Dossman & Gallagher (2022) suggest practitioners know how soothing the child, using reflective listening, problem-solving, and responsive interactions help the child and parents navigate learning and developing selfregulation and co-regulation. Murray et al. (2019) offer similar caregiver strategies like reassuring and calming the toddler when upset by removing the child from situations or speaking calmly and giving affection; then parents and caregivers should model self-calming strategies, including not letting their own emotions and behaviors become dysregulated. Overall, intervention studies suggest helping parents and caregivers use positive affect and responsiveness, provide supportive guidance, follow the child's lead without over-direction, and respond without negativity to co-regulate with their child (Cloud et al., 2025; Engel et al., 2023; Kiel et al., 2024; Klein et al., 2018). Several especially relevant references include:

Kiel, N., Samdan, G., Wienke, A. S., Reinelt, T., Pauen, S., Mathes, B., & Herzmann, C. (2024). From coregulation to self-regulation: Maternal soothing strategies and self-efficacy in relation to maternal reports of infant regulation at 3 and 7 months. *Infant Mental Health Journal*, 45(2), 135-152. https://doi.org/10.1002/imhj.22098

Landy, S., & Thompson, E. (2006). Pathways to competence for young children: *A parenting program*. Paul H. Brookes Publishing.

Murray, D. W., Rosanbalm, K., Christopoulos, C., & Meyer, A. L. (2019). An applied contextual model for promoting self-regulation enactment across development: Implications for prevention, public health and future research. *The Journal of Primary Prevention*, 40, 367-403. https://doi.org/10.1007/s10935-019-00556-1

Child Outcome of Positive Co-Regulation

Throughout an individual's lifespan, being able to self-regulate one's emotions, thoughts, and actions leads to a more balanced and productive life (Paley & Hajal, 2022; Robson et al., 2020). Researchers have shown child and parent co-regulation strongly influences a child's ability to self-regulate (Buhler-Wassman & Hibel, 2021). Children who experience positive co-regulation, especially when the caregiver uses appropriate scaffolding to help their child move from distress to positive interactions, had positive impacts on both their emotional and behavioral development (Guo et al., 2021; Paley & Hajal, 2022). Through positive co-regulation, children gain emotional understanding which in turn leads to improved social skills, peer relationships, and ability to navigate stressful interactions (Edvoll et al., 2023; LoBue & Ogren, 2022), and less likelihood of being anxious, depressed, or aggressive later in life (Robson et al., 2020). The following articles discuss child outcomes related to positive co-regulation:

- Kiel, N., Samdan, G., Wienke, A. S., Reinelt, T., Pauen, S., Mathes, B., & Herzmann, C. (2024). From coregulation to self-regulation: Maternal soothing strategies and self-efficacy in relation to maternal reports of infant regulation at 3 and 7 months. *Infant Mental Health Journal*, 45(2), 135-152. https://doi.org/10.1002/imhj.22098
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Conclusion

This CASEmaker bibliography provides sources of information that define co-regulation broadly and how it can manifest during the infant and toddler years. The child and caregiver have key roles in the co-regulation relationship which develops within the family dynamics.



Research provides evidence-based responsive caregiving strategies associated with effective co-regulation between caregiver and child. Developing effective co-regulation skills produces both short- and long-term positive child outcomes. Caregivers play a critical role in the development of social-emotional competencies of young children, including their ability to self-regulate, which has life-long implications for the child.

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