Special Issue Call for Papers

*Infant and Child Development*

Getting Our Stories Straight:

At the Interface Between Parasympathetic Function and Self-Regulation in Young Children

Guest Editors:

Steven J. Holochwost, Lehman College, City University of New York

Cathi B. Propper, School of Nursing, University of North Carolina at Chapel Hill

Decades of research has demonstrated the dynamic response of the parasympathetic nervous system (PNS) to situations that require young children to exercise volitional processes of self-regulation, including emotion regulation and executive functions. Major theoretical perspectives (e.g., polyvagal theory and the neurovisceral integration model) suggest that there is no one, optimal pattern of parasympathetic response across all situations that demand the exercise of these processes. Accordingly, prior research has demonstrated that young children exhibit different parasympathetic responses to different situations.

However, comparing the results of different studies reveals that prior research has also yielded highly-variable patterns of responses to situations that are designed to be quite similar, including standardized laboratory procedures. This complicates the interpretation of results that emerge from new studies (especially attempts to characterize particular patterns of PNS activity as optimal or adaptive) while also making it more difficult for researchers to formulate precise, directional hypotheses about what pattern(s) of parasympathetic response that should be anticipated in the context of tasks that demand the exercise of volitional processes of self-regulation.

The fact that the results of different studies diverge even when examining parasympathetic response to similar tasks does not mean that the results of some of these studies are in error. A number of methodological issues can account for these differences, including participant characteristics and varying indices of parasympathetic function. One approach that can minimize the influence of these issues is to compare patterns of parasympathetic response across a range of self-regulatory tasks within a single sample of young children.

For this special issue, we seek manuscripts that report the results of research into young children’s parasympathetic activity during tasks of volitional self-regulation. We are particularly interested in studies that examine profiles of young children’s PNS activity across multiple, widely-used laboratory procedures, tasks, or measures that index volitional processes of self-regulation, including measures of emotion regulation and executive functions. However, we are also interested in longitudinal studies that compare profiles of PNS activity across procedures or tasks at one point in time to performance on subsequent measures of volitional processes of self-regulation, as well as studies that PNS activity in response to a single task with reference to concurrent or subsequent performance on volitional measures of self-regulation, particularly if those studies feature analyses that may elucidate sub-sample differences in patterns of PNS activity. If we receive a sufficient number of submissions that examine children’s PNS activity in response to a single procedure or task, we may request additional methodological information from authors to facilitate the comparison of results across studies.

Proposed manuscripts should report the results of new data analyses, although these may include re-analyses of data for which other results were previously reported. Previously-published results may also be presented alongside the results of new analyses to facilitate comparison of parasympathetic responses across different measures of volitional self-regulation.

Those who are interested should send an abstract no longer than 150 words to Steven Holochwost at steven.holochwost@lehman.cuny.edu with the subject line “ICD Special Issue” by February 28th, 2023. Invitations for manuscript submissions will be sent by April 1st, with submissions due by August 31st.