

BAR-ILAN UNIVERSITY

Differences in Maternal Behavior during Mother-Toddler Interaction between Mothers of Toddlers with Regulation Disorder of Sensory Processing and Mothers of Typically Developing Toddlers

Ravit Pinto

Submitted in partial fulfillment of the requirements for the Master's Degree in the
School of Education, Bar-Ilan University

Abstract

This study focuses on the behavior of mothers and toddlers with sensory processing disorder during the interaction between them, and on the differences from the behavior of mothers and toddlers with typical development.

Sensory processing is the process of receiving and identifying sensory information, integrating and organizing information, and producing adaptive behavioral response according to the interpretation given to the stimulus. It is a dynamic and incessant process that enables efficient functioning. A sensory processing impairment means difficulty in absorbing the stimulus, in its processing, and in producing an adaptive response. Quality mother-infant interaction promotes and influences all areas of development, including the ability of mutual regulation and the development of self-regulation. When this ability is impaired due to neurological deficiency manifested in challenging behavior over time, the quality of the interaction is impaired. There are few studies that specifically examine the quality of interaction between mothers and toddlers with sensory processing disorder. This study focuses on the mother's emotional, communicational and teaching characteristics within the interaction and on the responsiveness of the toddler with sensory processing disorder to its mother.

Study goal:

To examine and compare interactional behavior of mothers to toddlers aged 12-18 months with and without sensory processing disorder, and their infant's response.

Method:

The study involved 66 toddlers and their mothers, 37 of them with typical development and 29 with primary signs of sensory processing disorder, aged 12-18 months. Toddlers in the study group received an abnormal score in at least two of the following tools:

1. Infant / Toddler Symptoms Checklist
2. TSFI-Test of Sensory Function in Toddlers
3. Infant / Toddler Sensory Profile

Toddlers in the control group were those who received a standard score in the three tools. In the present study, measures of three main areas were tested: assessment of mother's emotional behavior and of infant responsiveness to her (by an

observational tool developed for this study) and evaluation of the quality of mother-infant interaction (done by coding 10 minutes of free playing interaction, analyzed according to the OMI method).

Results:

i

Findings indicate significant differences between mothers of toddlers with sensory processing disorder and mothers of toddlers with typical development, in their emotional and instructional behaviors during the interaction with their child, as well as differences between toddlers with sensory disorder and toddlers with typical development in their responsiveness to their mother. Differences were found in each of the measured interaction characteristics: mothers of toddlers with sensory processing disorder had less qualitative interaction with their children, reflected less sensitivity and responsiveness than that of mothers of toddlers with typical development. Also, they showed lower degree of synchronization with their infant and they were more intrusive in their responses to it. Moreover, toddlers with sensory processing disorder were less responsive to their mothers during the interaction compared to toddlers with typical development. Incompatible or inconsistent responses of the mother to the infant and the infant's low response to the mother's initiatives during the interaction leads to shorter and inconsistent communication chains found in the study group. It was also found that mothers of toddlers with sensory processing disorder provided less qualitative teaching mediation on measures of affecting and expansion compared to mothers in the control group. Finally, in the study group, it was found that the communication chains were longer when the mother showed more affecting behavior, whereas in the control group, longer communication chains were associated with the mother's use of expansion behavior

Conclusions:

Study results reinforce the idea that toddlers with sensory processing disorder and self-regulation impairment experience less qualitative interaction. Because of their sensory processing disability, they need a highly sensitive interaction that is and adaptive to their needs, but the study shows they do not receive it. Qualitative interaction is one that advances the infant in all areas of development. When an infant does not receive such interaction, his optimal development is impaired in addition to his innate neurological difficulty in sensory processing. Clinical diagnosis is particularly important for identifying toddlers with challenging behavior whose

parents need guidance. Intervention to improve the quality of interaction will reduce the damage these toddlers experience, as found in this study.