

RESEARCH

Massage Improves Preschoolers' Cognitive Performance

Preschoolers showed enhanced cognitive performance after receiving massage therapy, as evidenced by greater accuracy on skills tests than those in a control group.

The research study "Preschooler's Cognitive Performance Improves Following Massage," was conducted by researchers at the Touch Research Institute in conjunction with Texas Tech University, Nova Southeastern University and the University of Miami School of Medicine. It was originally published in the journal *Early Child Development and Care*.

Twenty preschoolers ages 3 to 5 were randomly assigned to either a massage therapy group or a story-reading group. The children were given a temperament rating based on how their behavior was seen by their teachers, along a scale that ranged from calm and easygoing to anxious and high-strung.

Those in the massage group were given one 15-minute massage. Beginning in the supine position, the children were massaged along their faces, including circular strokes on the nose, cheeks, jaw and chin; their stomachs, including paddlewheel-fashion hand strokes; their legs, including massage of the feet and toes and stroking the legs up toward the heart; and their arms, including strokes from shoulders to hands. Finishing in the prone position, each child was massaged along the back, hands, sides, shoulders and neck, ending with strokes from the head to the feet.

Children in the control group were read a Dr. Seuss story for 15 minutes, while sitting close together in a carpeted area.

The skills pre-test was given to both groups prior to the reading or massage. Following the reading or massage, a skills post-test was given. Assessment included the Wechsler Preschool and Primary Scale of Intelligence-Revised, which measured the children's performance on three timed skill and abstract reasoning tests: block design, animal pegs and mazes.

Results showed that children who received massage were more accurate on the tests, in contrast to those in the control group, whose scores either stayed the same or decreased in each post-test. Researchers reasoned that the children were more alert following massage, and thus showed improved performance on the tests. The children who had been rated by teachers as anxious and high-strung showed the greatest improvement in scores following the massage. Massage possibly alleviated stress among these children, the study authors concluded.

Researchers noted that little touch takes place in preschools. "Whether touch deprivation is a source of stress among preschoolers is an important question for future research," the study authors wrote. "Since the long-term effects of massage therapy have not yet been established, further studies are needed to determine the extent to which touch therapy needs to be incorporated in the preschool curriculum."

- **Source:** The Touch Research Institute. Originally published in *Early Child Development*, 1998, Vol. 143, pp. 59-64.

