Developmental data supporting simplification of self-report
pain scales for preschool-age children

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Abstract
Claims regarding the ability of preschool-age children to provide accurate self-reports using standard pain scales are not well-supported by age-specific evidence. Responses of children younger than 5 years are often idiosyncratic and subject to biases. Simplifying the task of self-report of pain would make it more developmentally appropriate for 3- to 5-year-olds. A binary question is asked: “Does it hurt?” or equivalent. If yes, a simplified scale is presented, comprising 3 categories representing low, medium, and high pain severity. Children aged 3 to 5 years (N = 184) were recruited from preschools and daycare centers. Following parental consent and child assent, children were randomly assigned to use either the Faces Pain Scale – Revised (FPS-R), or a 3-face scale preceded by a yes-no question, to rate pain in 9 picture stories from the Charleston Pediatric Pain Pictures (CPPP) portraying no pain, moderate pain, and severe pain. The simplified pain rating task made no difference for 5-year-olds, whose mean scores were nearly identical using the two approaches.
However, discrimination of the three levels of CPPP items was significantly better in 3- and 4-year-olds with the simplified task than with the FPS-R. Simplifying the task improved preschool-aged children’s ability to estimate pain intensity.

Perspective
Standard self-report pain scales with 6 faces are confusing for many 3- and 4-year-olds. In basic preparatory research for future development of a preschool self-report pain scale, we simplified the task. This simplification made no difference for 5-year-olds, but improved the performance of 3- and 4-year-olds.

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