PHYSICAL WELL-BEING IN EARLY CHILDHOOD EDUCATORS: FINDINGS FROM THE HAPPY TEACHER PROJECT

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Background: Approximately two million teachers care for ten million children aged birth to five in the US.[1] The physical demands on these early care and education (ECE) teachers, who interact with children who are sometimes 10 to 20 percent of their size, are substantial. Many ECE teachers have physical health issues including excess weight, fatigue from over-exertion, and ergonomic injuries from work-related activities such as lifting and lowering a child, and bending and twisting.[2-6]

Purpose: This study reports on the physical status of teachers in the northeast region of Oklahoma and is part of a larger study that also examined cognitive and professional well-being along with environmental factors. It collected self-reported incidence of musculoskeletal problems and work-related injuries and measured body mass index and level of fitness in a sample of 262 ECE teachers. It also conducted an ergonomic analysis of daily work activities in a subsample of 40 teachers.

Methods: Our sample included 262 teachers from 38 ECE centers in Tulsa, OK, and the surrounding region. The study had two phases: In Phase 1, teachers completed a fitness-wellness questionnaire, and measures of height and weight were collected along with an assessment of their cardiorespiratory fitness using the Three-Minute Step Test.[7] In Phase 2 we randomly selected a subsample of 40 teachers for observation of classroom activities and conducted an ergonomic analysis of the first five activities they performed using the Rapid Entire Body Ergonomic Assessment (REBA).[8] We examined if differences existed between infant-toddler (IT) teachers and preschool (PS) teachers given the differences in the sizes – of the children with whom they work.

Analysis: Descriptive statistics for teachers' demographic information and incidence of musculoskeletal pain and work-related injuries were calculated along with BMI and fitness level. We tested differences in IT vs. PS teachers using chi-square tests for categorical variables and t-tests for continuous variables. Frequencies of work activities in the sub-sample were calculated and stratefied into risk categories using the REBA.

Results: Teachers' ages ranged from 18 to 66 years (M = 36.59). Participating teachers were from a diverse set of racial and ethnic backgrounds (e.g., 56% Caucasian, 22% African American, 10% Native American, 7% Hispanic). 75% were overweight or obese and 54% classified as below average or lower cardiorespiratory fitness. 66% reported work-related ergonomic pain in one or more areas of the body—with an average of two—but these did not differ between IT teachers and PS teachers. Notable is the fact that more than half of the teachers in our sample reported having prevalent headaches, with a significantly greater proportion being PS teachers, χ^2 (1, N = 262) = 4.60, p = .03. PS teachers had higher levels of cardiovascular fitness as compared to IT teachers χ^2 (1, N = 251) = 6.99, p = .01. Of 205 activities observed and examined ergonomically in the subsample, the most frequent were stooping (37), standing while holding a child (33), standing (29), and stooping while holding a child (22) which classify as medium to high risk for injury.

Discussion/Conclusions: The teachers in our study face more physical health challenges than the general population and one of the most prevalent areas of concern was work-related pains. This is likely because teachers of young children constantly bend, reach, twist and squat in environments that are typically child-sized. ECE teachers are constantly moving throughout their day with varying physical demands – they are, in essence "educational athletes." We should treat them as such by offering physical training sessions to better-prepare them for the "sport" of teaching.

Relevance to Allied Health: Each of the Allied Health professions are likely to interact with ECE teachers, whether professionally, personally, or as potential patients and a greater understanding of their physical health status could benefit those interactions.

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