

## A Preschool Obesity Prevention Program Improved Physical Activity Quality

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### ABSTRACT

The Míranos! Look at Us We Are Healthy (Míranos!) is an eight-week pilot intervention to promote healthy weight gain in low-income preschool Latino children aged 3-5 years. A major focus is to increase time spent in physical activity level, especially moderate to vigorous physical activity (MVPA) during play time and improve class instruction quality. According to one published study, preschool children spent only 14% of play session time in MVPA and 73% in sedentary activity (Tandon, 2015). **PURPOSE:** To assess the effectiveness of the Míranos! pilot intervention on the quality (lesson context, and health promotion interactions) and level of physical activity intensity among 3-5 year old children during outdoor and indoor play sessions conducted in two Head Start Centers in San Antonio, Texas.

**METHODS:** Head Start teachers received a 20-hour training on physical activity and gross motor skill instructions, lesson plans for structured outdoor and indoor activities, and equipment for structured and unstructured outdoor play. System of Observing Fitness Instruction Time (SOFIT) was utilized to observe the level of activity intensity (lying down, sitting, standing, walking, and vigorous), lesson context [management, instruction (knowledge, fitness, skill, game), and other “free play”], and teacher-student interactions (in-class and out-class promotion, and no promotion), following an established protocol (McKenzie et al., 1991a; McKenzie 2015). Two trained research assistants recorded the play sessions and coded the activities separately. The observations took place at week 4, week 6, and week 8 of the intervention. There were 4 recorded sessions on week 4, 4 recorded sessions on week 6, and 7 recorded sessions on week 8. **RESULTS:** Data from 15 sessions and 1,180 observations were scored for a total of 6 hours and 18 minutes. The average session lasting 25.19 minutes (ranging from 10.26 to 39.9 min). Children spent an average of 12% of play time in sedentary activity (lying down and sitting), 61% of time in light activity (standing and walking), and 25% of time in MVPA (vigorous activities). Percent of time spent on management, instructional content (knowledge, fitness, skill, and game), and other “free play” were 18%, 34%, and 47%, respectively. Teachers and teacher aides spent 21% of time for in-class physical activity promotion, 79% no physical activity promotion, and 0% of time for out-class physical activity promotion. **CONCLUSION:** Based on the results of SOFIT observation, Míranos! intervention increased time children spent in MVPA and decreased time in sedentary activities compared to published data of similar age children. The Míranos! intervention was also successful in increasing the quality of the instruction with 61% of teacher’s time on instruction-related activities.