

ADAPTIVE PHYSICAL EDUCATION INTERVENTION IN KAZAKHSTAN: INTEGRATING KAZAKH NATIONAL GAMES FOR CHILDREN WITH AUTISM

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ABSTRACT

Children with autism spectrum disorder (ASD) often experience barriers to participation in school physical education due to sensory processing differences, motor coordination difficulties, and limited adaptation of instructional practices. In Kazakhstan, physical education programs rarely incorporate adaptive strategies or culturally meaningful activities that support inclusive participation. This study explores the feasibility and developmental impact of a culturally adapted adaptive physical education (APE) program integrating Kazakh national games for children with ASD. A quasi-experimental pre–post research design was implemented over a 12-week intervention period. The program combined traditional Kazakh games with sensory-informed teaching strategies, structured motor exercises, and individualized instructional adaptations. Eighty children aged 8–14 years with clinically diagnosed ASD participated in the program. Outcomes were assessed using standardized motor skill assessments, sensory integration questionnaires, and adaptive behavior measures. Following the intervention, participants demonstrated improvements in gross and fine motor coordination, increased tolerance to sensory stimuli, and more stable behavioral self-regulation during physical activities. Educators also reported higher levels of engagement, motivation, and cooperative interaction among participants during physical education sessions. The integration of culturally familiar games appeared to enhance emotional comfort and participation in structured movement activities. These findings suggest that culturally responsive adaptive physical education programs may represent an effective approach for improving motor development, sensory regulation, and social participation of children with ASD in inclusive educational environments. The study highlights the importance of combining sensory-informed instruction with culturally relevant physical activity in order to support inclusive physical education practices.

Keywords: Keywords: Autism Spectrum Disorder; Adapted Physical Education; Sensory Integration; Inclusive Education; Kazakh National Games.