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<https://www.africanjournalofdiabetesmedicine.com/articles/evaluation-of-functional-training-along-with-online-nutritional-education-on-autistic-childrens-metabolic-status-during-covid19-pa-84569.html>

Article Overview:

This RCT investigated the effect of 8 weeks functional training, online nutritional education and their combination on metabolic related biomarkers in children with autism spectrum disorder (ASD). A total of 80 children aged 8 to 12 with ASD were divided in four groups including: 1) functional training 2) online nutritional education 3) training + education 4) control group.

Sample: 8-12 year olds with a diagnosis of ASD

Key take home messages:

1. Intervention group details:
 - Functional training group → functional training program for 8 weeks, 3 sessions per week and 45 minutes-60 minutes for each session. Each session included warm up, stand-sit with weights, going up and down the stairs, stretch movements and cool down under specialist supervision.
 - Online nutrition educational program → improving caregivers' nutritional knowledge and included 3 areas: nutritional advises, food groups, health food choices and diet related disease and weight management.
 - Training+ education group → functional training 3 session per week for 45 minutes-60minutes and online nutritional education program 3 times per week for 15 minutes-30 minutes for 8 weeks.
2. All the included interventions had a significant effect on participants' BMI percentile.
3. The reduction in BMI was highest in the combination of **functional training + nutritional education group**. Online nutritional education and functional training alone had less significant effect on BMI reduction respectively, with functional training having the least effect on BMI.
4. Online nutritional education may have the most significant effect on FM reduction.
5. Functional training and online nutritional education can be suggested as effective interventions especially during Covid-19 pandemic for children with ASD as they can have beneficial effects on body composition and metabolic indicators. This is considered as non-invasive interventions, leading to better health related indicators and may improve autistic individual quality of life.