

ORIGINAL RESEARCH

Review of Dietary and Nutritional Interventions Available for Management of Autism Spectrum Disorder Symptoms in Children and Adolescents, Kenya

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Abstract: Malnutrition and neuro-disability are major public health problems in Africa. There is limited autism spectrum disorder (ASD) research in Kenya and families lack support aetiology is linked to witchcraft and sorcery. Research indicates increase in ASD prevalence globally and in Africa. In Kenya, 2.2% (0.9 million people) live with some form of disability. Children diagnosed with autism spectrum disorder (ASD) suffer from neuro disabilities eliciting: altered sensory processing, restricted interests, and behavioural rigidity, allergies and aversions. Autism spectrum disorders have no cure, management is by use of interventions targeting autistic symptoms such as gastrointestinal disturbances, problem feeding behavior, linguistic development, non-verbal cognitive development, and motor development. The overall objective of this review was: to identify dietary and nutritional interventions available for the management of ASD symptoms in children and adolescents – Kenya. The study employed systematic review as the study design. The study included articles from Cochrane Library, PubMed, PMC, Google scholar, and Free Full databases. These were searched to identify studies published between September 2011 and September 2021. Eighteen articles were included: 12 randomized case-control trials, 3 open-label trials, one 2×2 factorial study, and 2 cross-over trials. The following dietary and nutritional interventions were evaluated: gluten and casein-free diet; ketogenic diets; probiotic supplements; specific carbohydrate diets; polyunsaturated fatty acids; vitamin and mineral supplementation (A, B6, B12, D, magnesium, folic acid); and alternative diets. Results from study indicate that vitamin and mineral supplementation was the most used intervention in management of ASD symptoms. This review established that there are limited or no studies on dietary and nutritional interventions in Kenya. Authors reported improvements in ASD symptoms in individuals receiving dietary and nutritional interventions such vitamin and mineral supplementation. The study findings will help policymakers and implementers to understand the consistency and precision and impact of these interventions. This will improve the safety and efficacy of interventions positively impacting the health and nutrition outcomes of children and adolescents with ASD. More research targeting ASD dietary and Nutritional Interventions is required in Kenya and other resource constrained settings.

Key words: autism spectrum disorder, nutritional intervention, diet therapy, child, adolescent, Kenya.