Autism is a developmental disorder, which is typically characterized by an inability to develop normal social relationships, compulsive and ritualistic behaviour and failure to develop normal intelligence. A characteristic feature commonly seen among people with autism is the abnormal stereotype behaviours. These behaviours engaged in at various times also inhibit the ability to learn or take part in activities appropriately. This study analysed the efficacy of using structured physical exercises as an intervention for managing stereotype behaviours in autism. The Nairobi Autism Unit for individuals with autism was purposively selected. All the 34 autistic children at the unit constituted the sample of the study. Quasi-experimental research using a single-group pre-test and post-test design was used with the experimental group (autistic children) being given treatment using structured physical exercises for a period of eleven weeks. The physical exercise circuit included warm up, flexibility, cardiovascular and endurance, muscle-strengthening and cool down activities. The adaptive exercise routine used structured teaching principles explained by Hong (2001) and Schopler, et al., (1995). The Autism Treatment Evaluation Checklist was used as the main tool for collecting data. A pre-test was done during the first week of the school term to establish the children's behaviour levels in the different domains. This was followed by subsequent tests periodically, at 3 weeks and 4 weeks intervals up to a final test after the eleventh week. The dependent variables comprised those behaviours found in the ATEC evaluation checklist and included: Speech/Language/Communication, Sensory/Cognitive awareness, Sociability and Health/Physical behaviours. Age, gender and level of autism were the independent variables. The raw data was summarized using descriptive statistics. To test the hypotheses, dependent t-test was used where hypotheses were either rejected or not rejected at 0.05 alpha level. The results of the study were then presented in tables and charts. The results indicated that the structured physical exercises had a positive significant impact on all the four behaviour domains of children at the Nairobi Autism Unit. With regard to gender, age group and level of autism, the males, aged 8-12 and 13-17 years as well as those children with mild level autism did not improve significantly in speech/language/communication. The improvement of children aged 18 years and above was not significant in any of the behaviour variables. Structured physical exercise is thus recommended as a means to manage the challenging behaviour and enhance better health and wellness amongst individuals with autism. Creative methods for including physical exercises in the daily schedule for autistic individuals could be very beneficial. There is also a major task for curriculum planners to develop an appropriate Physical Education syllabus. Studies need to be carried out to establish the physical fitness levels of individuals with autism for the establishment of more specific programmes. Different populations with behavioral challenges should also be used as samples in physical exercise intervention other than individuals with autism.

Supervisors: Mwangi P. Wanderi
Dr. Njororai W.W. Simiyu

School of Graduate Studies. Kenyatta University. P.O Box: 43844-00100 Nairobi, KENYA
Tel: +254 20 810901 Ext: 57530 Direct: +254 20 812086. Fax: +254 20 811575
Email: dean-graduate@ku.ac.ke