Background: A pre experimental research was conducted to analyse the causal factors of obesity among children 3-5 years in Kampala Kindergarten School KCCA.

General objective: To assess factors influencing obesity among children 3-5 years attending Kampala Kindergarten School in Kampala district.

Methodology: A cross sectional study design was applied. The study population was children aged between 3-5 years. Simple random sampling using class list was used to determine the sample size of 217 children. The tools used for data collection consisted of structured questionnaires, weighing scale and a tape measure. Anthropometric measures (height and weight) were taken and Body Mass Index (BMI) was computed. The sources of data were both primary and secondary. Data analysis was done at two levels (uni-variate and bi-variate) using the statistical package for socio scientists (SPSS version 16).

Results: Data was presented using tables. Children were classified into respective weight and height categories using WHO (2007) CDC –BMI for sex–age growth charts. The results showed that out of the 105 boys 27.2% were normal, 15.7% were overweight and 5.5% were obese. Of the 112 girls, 25.8% were normal, 18% were overweight and 7.8% were obese. The results also revealed significant gender difference with boys having lower mean BMI scores than girls (using  $p \le 0.05$ ).

Conclusion: The study concluded that obesity prevalence is steadily increasing among children in Uganda especially those that are 3-5 years and could lead to increased non- communicable diseases and mortality later in their life.

Recommendation: Strategies like regular physical activity and promotion of eating healthier diets in school were stated to quickly help combat the obesity epidemic.