

## ABSTRACT

Childhood undernutrition is one of the most significant global public health problems of concern especially in developing countries. Overnutrition, however, is also slowly showing up and together with undernutrition, they may exist in the same set/ population. While many studies on undernutrition among the under-five year old children have been performed, undernutrition among children above five years or their nutritional status has received less attention in Uganda. Diet, environment and health factors though vital to the child's poor nutrition, maternal depression may also be of importance since it reduces mothers'/ key female caregivers' ability to offer responsive child care. This study purposed to establish the extent to which maternal depression related to nutritional status (undernutrition centred on) among children 5-7 years old in Kigezi sub-region, Southwestern Uganda. The study was cross-sectional and conducted from November 2019 to February 2020 in Rukiga, Rubanda, Kabale and Kisoro districts. The 5-7-year-old child and the mother or key female care giver were the units of study. The children had been previously enrolled in the Child Nutrition and Development (CHNUDEV) project. Height for age z-scores (HAZ) and Body mass index for age z-score (BAZ) were calculated using world health organisation-WHO AnthroPlus, 2009. Undernutrition (Stunting and wasting) was determined following the Multicenter Growth Reference curves guidelines. Maternal/ key female caregivers' depression levels were measured with Beck's Depression Inventory-II (BDI-II) tool. Statistical analyses were performed using STATA Corp. 2015 (STATACorpLLC, 2015) and SPSS version 22 at 95% confidence level ( $p < 0.05$ ). Chi-square tests, correlation coefficients, and linear regression analyses were used to relate background variables, nutritional status indicators, and maternal depression. Of all 364 mothers/key female caregivers who were approached and consented to participating in the study with their children, 362 sets completed the study. Most women were young with a median age of 32 (IQR: 11), were less educated (69.9%). Mean (SD) HAZ and BAZ were -1.58(0.97) and 0.11 (0.80) respectively. Stunting among children was 114(31.4%) with 33 (9.0%) severely stunted. Only 2 (0.6%) were thin while 34 (9.5%) were overweight and 2 (0.6%) obese. Prevalence (P) of maternal depression was worrying, at 42.01 % (above 10 total score clinical cut-off) and about 14 % of the mothers had moderate to extreme depression. Maternal depression was inversely but not significantly associated with child undernutrition (Unadjusted  $\beta = -0.001$ ,  $p=0.805$ ). From for this study unlike in most studies among school going age children, maternal depression showed a non-significant inverse association with nutritional status of children of ages 5-7 years in rural Southwestern Uganda; even on accounting for the family factors. The short period maternal depression and respective nutritional status of dependents could not be conclusively explained. There is need to incorporate screening for and management of maternal depression in health clinics, given the level observed.