ABSTRACT

Background: Childhood malnutrition is common in Nigeria, and the standard treatment, which follows international guidelines, results in poor recovery rates. Higher recovery rates have been seen in pilot studies of home-based therapy with ready-to-use therapeutic foods (RUTF).

Objective: The objective was to compare the recovery rates and weight gain from baseline among children with severe acute malnutrition without complications; both receiving either home-based therapy with ready-to-use therapeutic food (RUTF) and fortified complementary food (JUTH II).

Design: A controlled, comparative, open labeled, clinical effectiveness trial was conducted among severely malnourished Nigerian children in Jos. Seventy-two severely malnourished children, aged 6-60 months, were randomly allocated to receive either RUTF (n =36) or JUTH II (n = 36). Recovery, defined as reaching a weight-for-height z score ≥ 0, and rate of weight gain in g/kg/day were primary outcomes, while the incidence of fever, cough, and diarrhea and cost of producing either foods were the secondary outcomes. The data from 33 children in JUTH II group and 32 children in RUTF group were analyzed.

Results: Children who received home-based therapy with RUTF were more likely to achieve a weight-for-height z score ≥ 0 than were those who received JUTH II (78.1% compared with 36.4%; P < 0.01). Children who received home-based therapy with RUTF had greater rates of weight gain (15.3 compared with 9.5 g/kg/d; difference: 5.8; 95% CI: 3.8-7.8 g/kg/d; t = 5.92, p < 0.01) and a lower incidence of fever, cough, and diarrhea than did children who received JUTH II. The average duration of recovery was 36.3 ± 18.9 days in JUTH II group and 24.3 ± 7.9 days in the RUTF group; difference of 12.0 (95% CI: 4.9-19.1) days (t = 3.56, p < 0.01) in the RUTF group. RUTF was relatively more expensive (₦55.00) than JUTH II (₦30.00) per 100 grams of ration.

Conclusions: This study indicated that RUTF was superior to JUTH II. However, both foods can be used efficiently for the treatment of severely malnourished children without complications.