Integrated Community Nutrition, Early Childhood Stimulation for the Improved **Recovery of Children with Moderate Acute Malnutrition in Sudan:** A Quasi Experimental Study

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Introduction

In low-income countries, more than half of children under five years of age do not reach their full developmental potential due to malnutrition and poverty. Global acute malnutrition in Sudan is 16%, where childhood stimulation and protection from toxic stress remain un-prioritized. The literature suggests that integrated community health and nutrition and early childhood development (ECD) interventions have an amplified impact on child physical and psycho-social development.

World Vision Sudan (WVS) implemented an integrated nutrition and early childhood development (ECD) model in South Darfur State. It was for 6-59 month old children with moderate, acute malnutrition (MAM), assessing the effectiveness on their recovery rates.

Findings

Association between Go Baby Go Parenting Programme participation and treatment outcomes

Results	Control	Intervention
Cured	42.72%	72.43% **
Defaulter	18.31%	10.28% **
Non-recovered	33.33%	11.21% **
Total # of participants	213	214



- I. Community Nutrition Integrated Platform: a program approach implemented by World Vision in collaboration with World Food **Programme. The approach combines:**
 - Targeted Supplementary Feeding (TSF): treatment regimen for Moderate Acute Malnutrition (MAM) children 6 -59 months, pregnant and lactating women (PLW)
 - Supplementary Food Based Prevention of Moderate Acute **Malnutrition** (FBPMAM): prevention regimen for children 6-23 months, PLW 'at risk' of malnutrition
- 2. Go Baby Go: Parenting Programme with an integrated approach to promote holistic 0-3 child growth and development delivered during group sessions, home visits and waiting period in health centers
 - Caregiver Group Sessions integrated within waiting period at Supplementary Feeding Centers
 - Toy making
 - Home Visits monthly



π of participants	LIJ	

A statistically significant difference was detected between the GBG intervention group and the control group for the following:

- increased recovery rate
- decreased defaulter
- non-recovered rates
- reduced length-of-stay for MAM treatment
- increased weight-gain/per day in CMAM + ECD group compared to CMAM group



Methodology

Parental practices promoting age-appropriate play and communication; affectionate, sensitive and responsive parent-child interaction; and toy-making were integrated into community management of acute malnutrition (CMAM) programme platforms.

At supplementary feeding centers the trained community volunteers (CVs) conducted biweekly parental group sessions on ECD, toy making, in addition to nutrition and heathcare. They also paid weekly home visits for individualized support for the parents to apply key nutrition and ECD practices.

Randomly selected children (6 – 59 months) with MAM (with Mid-Upper Arm Circumference 11.5 cm - < 12.5 cm) were assigned to control groups, receiving CMAM (n=213), and the intervention group, receiving CMAM plus ECD (n=214) for six months period to assess their impact on nutrition outcomes.

> Children (6-59 mos) with Moderate Acute Malnutrition (n=427)

Conclusion

Combined psycho-social stimulation & care with nutrition improves treatment outcomes of children with moderate acute malnutrition, with a potential impact on weight gain rate; increases caregivers' motivation & responsiveness to their children's needs.

More evidence is needed to prove the concept for scale-up and institutionalization of the approach.



Intervention Group: Families received CMAM & Go Baby Go (GBG) Parenting Programme (n=214)



Control Group: Families received CMAM only (*n=213*)

