

## Child Feeding Practice and Perception of Mothers/Caregivers on Nutrition Therapy Programme in Three Counties of Lakes State South Sudan

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### Abstract

*The food supplement feeding practice and the overall perception of mothers/caregivers about the nutrition therapy programmes in the associated humanitarian interventions, for the under-five children play important role in achieving the maximum success in such laudable programmes.*

*A cross sectional survey study was carried out on the mothers/caregivers in three counties-Cueibet, Yirol West and Rumbek North. Data was collected through structured questionnaire containing questions on the mothers'/caregivers' feeding practice of the supplementary foods, and their perception on the nutrition therapy programme. Data were analyzed using descriptive and inferential statistics. Statistical level of significance was set at P-value <0.05.*

*The results showed that more than 90% of mothers/caregivers in Cueibet and Yirol West counties have varying degrees of poor feeding practices and perceptions about the nutrition therapy programme, while in Rumbek North county, over 50% of the mothers/caregivers have good feeding practices but more than 50% of them also have varying degrees of poor perception about the nutrition therapy programme. Chi-square test revealed significant association between the marital status and feeding practice of the mothers/caregivers in the three counties, and a significant association between their level of education and perception on the nutrition therapy programme. Suggestions for improvement among others include; intensive nutritional health education of mothers/caregivers on good feeding practice of the food supplements, increased community awareness programme on nutrition therapy, and periodical conduct of field monitoring visits to the programme sites.*

**Keywords:** Feeding practice, perception, nutrition therapy, Mothers/caregivers.

### Introduction

The challenge of acute malnutrition among under-five children in south Sudan is making various donors and international organizations to increase their efforts to reverse this menace in the youngest nation of the world. Presently, both World Food Programme (WFP) and United Nations Children Fund (UNICEF) are tackling this challenge headlong with the former donating food supplement to address Moderate Acute Malnutrition (MAM) and the later donating food supplements to treat the Severe Acute Malnourished (SAM) under-five children. These intervention programmes which are being implemented by other International Non-Governmental Organizations (INGOs) are expected to cater for about two million malnourished children and there is a plan to continue till December, 2017 after starting in 2013.

According to UNICEF 2014, these intervention programmes have helped in saving lives of close to one million people by adopting various emergency response methods in the conflict areas and general food distribution method in non-conflict areas.

The methods adopted by the donors and implementers are always being reviewed in order to reach the grass roots and ensuring that their capacity is built to curb the menace of malnutrition at local levels. The root causes of malnutrition is also being addressed by the nutrition response plan, so that such causes like poor water and sanitation hygiene, and poverty are also being targeted.

It is in order to state that the preventive aspect of the nutrition intervention programmes is the best method in addressing the scourge of acute malnutrition among the under-five children in south Sudan, and this is the template that the international organizations intervening in this area is currently considering. This is the most appropriate method to salvage the situation and maintain a long-lasting generational health in this conflict-ridden country, being the cogent reason behind involving the services of Food and Agriculture Organization (FAO) in south Sudan.

UNICEF, as an international organization, promotes the rights and wellbeing of every child, and in collaboration with their partners, they work in 190 countries to realize their goals, with a special focus on impacting on the lives of the vulnerable children, most of whom are under-five in age. On the other hand, World Food Programme (WFP) is a known world largest donor agency combating hunger globally. They plan to achieve this by donating food/food supplements to the emergency regions worldwide with associated collaboration with INGOs and various communities to improve their nutrition security, with well over eighty million people in about eighty nations of the world. Donors contributing to these life-saving nutrition programme in South Sudan cuts across diverse developed countries around the globe. (UNICEF, 2014).

In spite of the huge investment on the provision of the food supplements and other costs involved in this humanitarian service of nutrition therapy programme, the feeding practice of the mothers/caregivers, ranging from issues regarding hygiene to the possibility of sharing the foods among other non-malnourished children, and their perception regarding the whole programme are possible determining factors towards the achievement of the set goals in reducing the acute malnutrition among these vulnerable population-the under-five children.

Conducting a survey study on the feeding practice of the food supplements and the perception of the mothers/caregivers will not be out of place in order to unravel salient information, whether there is a need for improvement on the modules operandi of the nutrition humanitarian programme, by both the donors and the implementers. Hence this study was intended to bridge this gap of knowledge regarding the food supplements feeding practice of mothers/caregivers, and their perception on the efficacy of the humanitarian nutrition therapy programme in south Sudan. It will serve as a compass to guide in the next line of action for all stakeholders involved in the implementation of the nutrition therapy services for this vulnerable group –the under-five children, especially in the youngest nation of the world-south Sudan.

## Methods

This study is a cross-sectional survey study. Data was obtained through administering questionnaire on the mothers/caregivers, after a due pilot study was conducted with it, and appraised by the erudite researchers. Three research assistants-one from each county, were trained on how to administer the questionnaire, and were fully involved in the data collection process. Data were analyzed using descriptive statistics of frequencies, percentages, and pie charts. Inferential statistics of Chi-square was used to test for significant associations between socio-demographic variables and the feeding practices of the mothers/caregivers, and their perception on the efficacy of the nutrition therapy programme across the three counties, in general. Respondents answered “yes” or “no” to questions on feeding practice and perception towards the nutrition therapy programme. Each right response was scored 1, while each wrong response was scored 0. Summated scores were used to arrive at each respondent’s feeding practice and perspective, with a possible score range of 0 to 10. Higher scores indicate higher level of good feeding practice or perception, with score of 10 as the highest score for good feeding practice or perception. Statistical level of significance was set at P-value <0.05.

## Results

A total of three hundred (300) respondents were interviewed out of which two hundred and sixty eight (268) questionnaires were recovered giving a response rate of 89%.

**Table1:** Socio-demographic characteristics of the respondents in the three counties.

Variables	Cueibet		Yirol West		Rumbek North	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Age						
21-30	35	43.00	36	41.90	60	60.00
31-40	33	40.00	37	53.00	27	27.00
41-50	14	17.00	13	15.10	13	13.70
Total	82	100	86	100	100	100
<b>Marital status</b>						
Married	55	67.00	58	67.40	93	93.00
Separated	10	12.00	15	17.40	3	3.00
Divorced	8	10.00	6	7.80	2	2.00
Widowed	9	11.00	7	8.10	2	2.00
Total	82	100	86	100	100	100
<b>Level of education</b>						
None	53	65.00	55	64.00	73	73.70
Primary	25	30.00	25	29.10	18	18.20
Secondary	4	5.00	6	7.00	9	8.10
Total	82	100	86	100	100	100
<b>Religion</b>						
Christian	80	98.00	86	100	100	100
Others	2	2.00	0	0	0	0
Total	82	100	86	100	100	100
<b>Ethnic Group</b>						
Dinka	73	89.00	81	94.20	100	100
Nuer	9	11.00	5	5.80	0	0
Total	82	100	86	100	100	100

The table above showed the bio-data of the respondents to the cross-sectional survey, with 82 from Cueibet, 86 from Yirol West and 100 from Rumbek North.

**Table 2.** Chi-square test of association between socio-demographic variables and feeding practice of mothers/caregivers in the three counties

Variables	X <sup>2</sup> value	Df	Sig.
Age	1.817	2	0.403
Marital status	14.024	3	0.003*
Level of Education	1.080	2	0.583
Religion	0.281	1	0.596
Ethnic Group	2.393	1	0.122

\*indicates significant association at  $\alpha = 0.05$

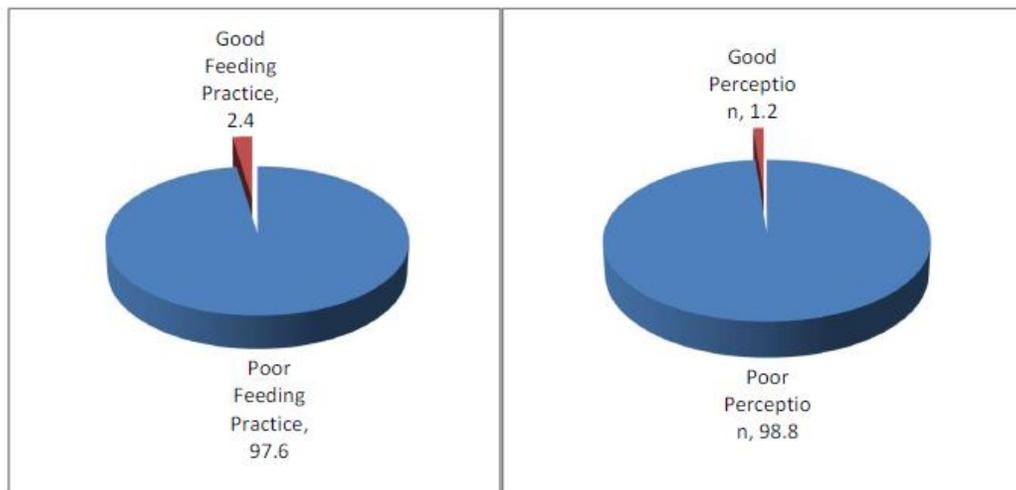
The table above table showed that, there is a significant association between the feeding practice of the mothers and their marital status.

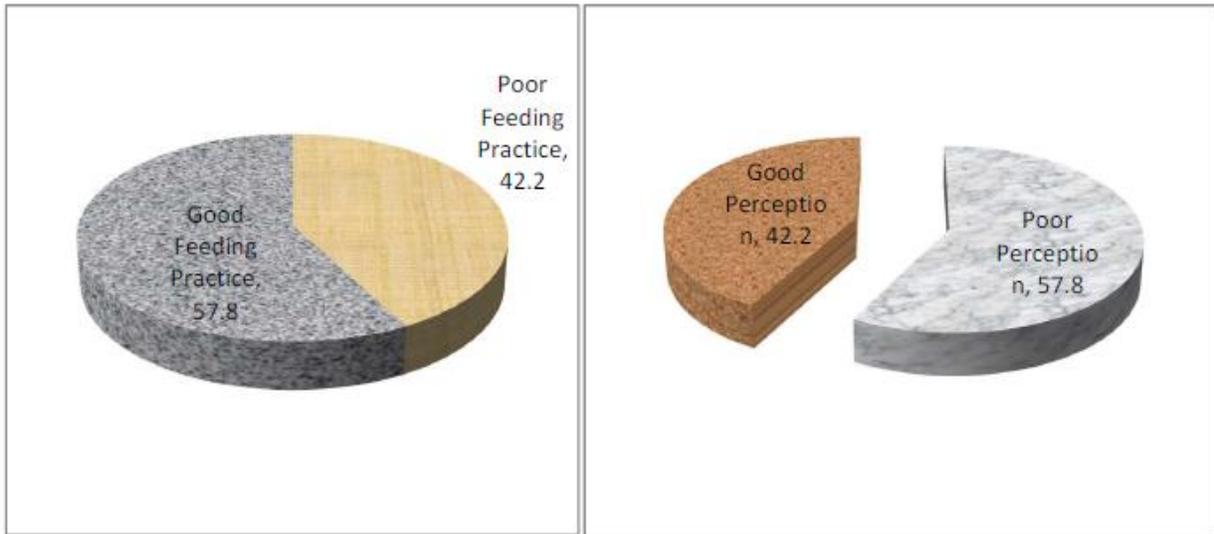
**Table 3.** Chi-square test of association between socio-demographic variables and perspective of mothers/caregivers on nutrition therapy program in the three counties

Variables	X <sup>2</sup> value	Df	Sig.
Age	2.535	2	0.282
Marital status	1.157	3	0.763
Level of Education	12.877	2	0.002*
Religion	0.143	1	0.705
Ethnic Group	2.953	1	0.086

\*indicates significant association at  $\alpha = 0.05$

The table above showed a significant association between the perception of the mothers about the nutrition therapy program and their level of education.

**Figure 1.** Pie charts showing feeding practices and perceptions of mothers in cueibet county**Figure 2.** Pie charts showing the feeding practices and perceptions of mothers in yirol west county



**Figure 3.** Pie chart showing the feeding practices and perceptions of mothers/caregivers in rumbek north county

## Discussion

Three hundred (300) questionnaires were administered while two hundred and sixty eight (268) mothers/caregivers (Cueibet-82, Yirol West-86, Rumbek North-100) fully responded during the collection of data through questionnaire, giving 89% response rate. The results showed that 80 (98%) and 81 (94%) of mothers/caregivers have varying degrees of poor feeding practices, while 81(99%) and 85(99%) have varying degrees of poor perceptions about the nutrition therapy programme in Cueibet and Yirol West counties respectively. In Rumbek North county, 58 (58%) of the mothers/caregivers have good feeding practices but more than 58% of them also have varying degrees of poor perception about the nutrition therapy programme.

The results from Cueibet and Yirol West counties are not in agreement with Neitzel (2011) who reported a large proportion (over 90%) of the beneficiary mothers having appropriate child feeding practices and perception, in a study conducted in five regions in Ethiopia (Tigray, Afar, Amhara, Oromia and SNNPR) where nutrition therapy programme was implemented, in which the study population have been well exposed to different education and community orientation about the nutrition therapy, even before the commencement of the programme. The duration of the intervention program (2007-2011) in the study areas in Ethiopia is also considerably higher than the counties under consideration in this present study. These might have positive effects on the outcome of the study conducted in those regions of Ethiopia, unlike those of the three counties, in this study. Possible reason for a slightly better feeding practice in Rumbek North may be associated with a more appreciable and frequent health education sessions on nutrition program for under-five children, carried out for mothers/caregivers, at the nutrition therapy centres, than in Cueibet and Yirol West counties.

In the same vein, the high percentage of poor perception about the program, most especially in Cueibet and Yirol West counties may be due to the haphazard nature of nutrition supplement supplies to the two counties, probably inconsistent in nature, hence causing high number of days of stock-outs of food supplements for the malnourished children at the nutrition therapy health centers. This may serve as a source of negative feeling for the mothers/caregivers about the whole nutrition intervention programme. Chi-square test revealed significant association between the marital status and feeding practice of all the mothers/caregivers in the three counties, and there is significant association between their level of education and the mothers'/caregivers' perception on the nutrition therapy programme.

This is in agreement with the report of a similar study of Abuya et al (2012) in Nairobi which reported marital status of mothers, as a strong determinant of nutritional status of under-five children, but do not

agree with the result of the same study which reported mothers' educational status to be significantly associated with the feeding practice and nutritional status of the under-five children, as the level of education of mothers/caregivers has no significant association with the feeding practice in this study. The significant association of the marital status and the feeding practice of all the mothers in the three counties (put together) may be due to the fact that most of the women in south Sudan, and especially in these war-torn counties, have lost their husbands to death during wars, or the nomadic (pastoral) nature of their husbands' occupation, which keeps them away from home for a long time.

The significant association of mothers'/caregivers' level of education and perception on the nutrition programme is in agreement with a close related study of Khunga et al (2014) conducted in Kanchele, Kalomo district, in Zambia which reported that mothers' and caregivers' education is directly linked to the perception of mothers and caregivers regarding the detection and treatment of malnourished children in the study area. The significant association between the level of education and the perception of the mothers/caregivers about the nutrition therapy programme in this study, is quite obvious, because many women in the three counties are either uneducated in its entirety, or receive half-baked education. This can be attested to, during the administration of the questionnaire in which the content of the document was interpreted to many mothers/caregivers in the local language before responses were given.

## Conclusion

The results from this study showed variations in the feeding practices of mothers/caregivers among the three counties, with high percentage of poor feeding practice. This can serve as a significant factor responsible for the poor impact of the nutrition therapy program across the three counties. In tandem to the foregoing, the results of this study also revealed varying degrees in the perception of mothers (considerably poor) across the three counties. This may be the consequence of many other negative factors, emanating from the implementation of the nutrition therapy programme in the three counties.

Furthermore, the results of this study showed that, there was a significant association between the marital status and the feeding practice of mothers/caregivers. It also revealed that there was a significant association between the level of education and perception of mothers/caregivers on the nutrition therapy programme. In overall, this study has shown that, despite the various interventions of international organizations, like United Nations Children Fund (UNICEF) as the major donor for OTP programme for SAM cases, and World Food Programme (WFP) as the major donor for TSFP programme, for MAM cases, in south Sudan, with the duo working in collaboration with other International Non-governmental Organizations (INGOs), to implement nutrition therapy programme among under-five children, there is still much to be done on mothers/caregivers, regarding the feeding practice of the food supplements to their children.

In the same vein, efforts towards improving their perception of the whole nutrition therapy programme must be re-enforced. Possible activities to improve the situation include intensive health and nutrition education of mothers/caregivers on good feeding practice, increased community awareness programme on nutrition therapy programme, re-orientation of the south Sudanese populace on good feeding principles, periodical conduct of field monitoring visits to the programme sites, and yearly evaluation of the programme successes and failures by both the donors and the implementers.

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