



Determinants of Acute Malnutrition in Children Aged 6-59 Months Admitted to the INRC (Intensive Nutritional Recovery Center) of Konni-Niger.

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ABSTRACT

In Niger, the rate of acute malnutrition has remained almost flat over the last ten (10) years. The prevalence of global acute malnutrition (GAM) continues to fluctuate in the range of 10 to 15% corresponding to a serious situation according to the WHO classification scale. The Tahoua region is not spared from this problem, whose prevalence of global acute malnutrition (GAM) in 2020 was 13%. (INS Smart Survey 2020). This leads us to conduct a cross-sectional descriptive study on the Determinants of Acute Malnutrition in Children of 6-5 Months Admitted to INRC In Konni.

A questionnaire for health workers and an interview guide with mothers of children aged 6-59 months were used for data collection using a non-probability method. To carry out this study, we targeted 75 mother-child couples, 10 INRC health workers and 15 IHC health workers using a non-probability method.

The results of the study show that, 100% of the mothers surveyed are married, 84% of hospitalized children are in charge of their mothers, 88.0% of the mothers surveyed are housewives. Thus, 80.0% of INRC staff have not received training on ITIs and 77% of the obstacles related to the introduction of complementary foods are due to the ignorance and poverty of the mothers surveyed according to IHC staff.

In view of the results achieved, it would be important to increase the enrolment rate of girls and promote women's literacy in the Tahoua region in general and in the Konni department in particular.

Keywords: Malnutrition, Determinants, Konni, Niger

1. Introduction

Child malnutrition remains a real scourge in the developing world despite considerable progress in increasing the quality and quantity of the world's food resources in recent centuries. According to UNICEF, malnutrition kills 16,000 children a day worldwide or about 6 million a year [1]. In Niger, malnutrition is repeated almost every five years (UNICEF 2010). It is characterized by periods of cyclical exacerbation, including the persistence of a nutritional emergency with a prevalence rate above the intervention threshold of 10% and the emergency threshold of 15%. However, in order to better control this scourge, it is essential to identify the problem by identifying the associated elements with a view to providing appropriate solutions. In the department of Konni, we had not found any studies done on the determinants of malnutrition. For example, we considered conducting research to determine the predisposing factors for malnutrition in this area in 6-59 month olds.

2. Material and methods

2.1 Material

To obtain this information, we used:

- Maintenance guide for mothers;

- Anthropometric materials: parent PB band; Toise, scale
- A questionnaire addressed to the health workers of the CSI
- A questionnaire sent to INRC health workers

2.2 Methods

This is a cross-sectional descriptive study aimed at analysing the determinants of acute malnutrition in children aged 6-59 months admitted at the INRC level in Konni which took place from 1 April to 30 May 2021. The reference population consisted of mothers of children aged 6-59 months, children aged 6-59 months and health workers. We used the method for convenience for sampling. As for the data, it was processed and analyzed by the SPSS software. This analysis was carried out in a variety of ways. The data are thus presented in tabular and graphical form with commentary.

3. Results and discussion

3.1 Results

3.1.1 Presentation of the results of variables related to mothers of malnourished children:

Table I: Distribution of children aged 6-59 months by caregiver

Person in charge of the child	Nb	%
Mother	63	84,0%
Aunt	6	8,0%
Grand-Mother	6	8,0%
Others (to precise)	0	0,0%
TOTAL OBS	75	100%

Table II: Distribution of mothers of children aged 6-59 months by age

Age of the mother	Nb.	%
<20 years	9	12,0%
From 20 to 25 years	30	40,0%
From 26 to 31 years	12	16,0%
From 32 to 37 years	12	16,0%
>38 years	12	16,0%
Total	75	100%

The median age of mothers is 31 years, ranging from 17 to 45 years. The study reveals that the age range 20 to 25 years and over represented, with 40% of mothers.

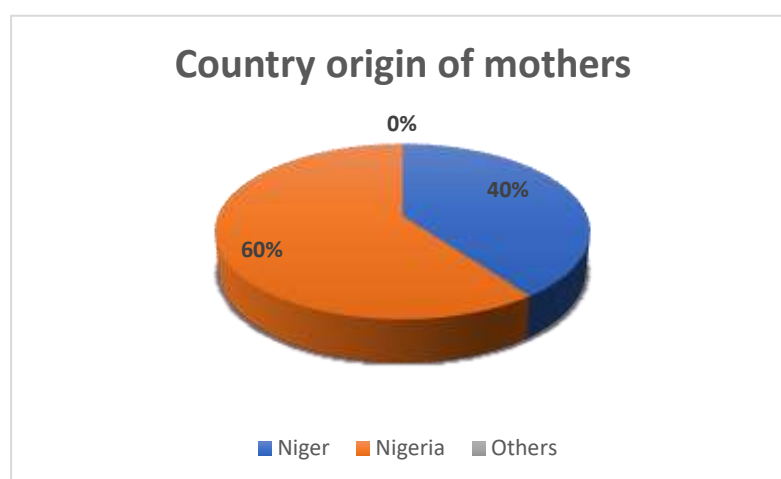


Figure 1: Distribution of mothers of children aged 6-59 months by country of origin

Our study showed that 40% of mothers of children aged 6-59 months from Niger compared to 60% of those from Nigeria.

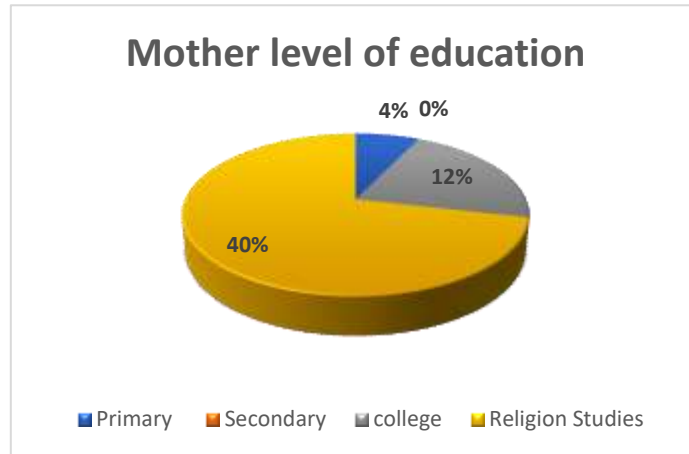


Figure 2 : Distribution of mothers of children aged 6-59 months by level of education.

The results of our study showed that 44.0% of the mothers of children aged 6-59 months surveyed have no level of education.

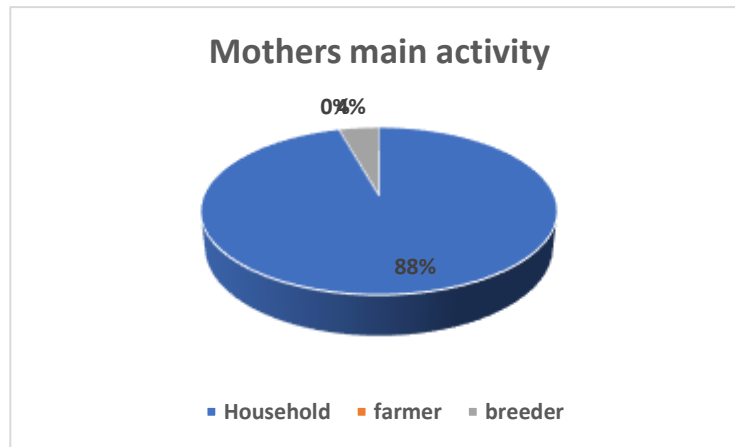


Figure 3: Distribution of mothers of children aged 6-59 months by main activity.

The study showed that 88.0% of the mothers of children aged 6-59 months surveyed are housewives.



Figure 4: Distribution of Mothers of Children 6-59 Months of Age by Difficulties in Attending Health Services

Our study showed that the lack of medication accounts for 44.0% of health service attendance difficulties and 44.0% of non-response. The bad reception represents 0%.

3.1.2 Child health and nutrition

Table IV: Distribution of mothers of children aged 6-59 months by type of breastfeeding adopted before the age of six (6) months

Type of breastfeeding adopted(chosen)	Nb	.%
Exclusive	12	16,0%
Mixte	63	84,0%
TOTAL OBS	75	100%

Our study found that 84.0% of mothers had adopted mixed breastfeeding.

Table VIII: distribution of the metrics according to whether the child has developed the disease during the last two weeks

Sick Child	Nb. .	%
Oui	75	100%
NON	0	0,0%
TOTAL OBS.	75	100%

The study showed that 100% of the children had developed the disease in the last two weeks. This is undoubtedly due to the fact that diseases are among the direct causes of acute malnutrition.

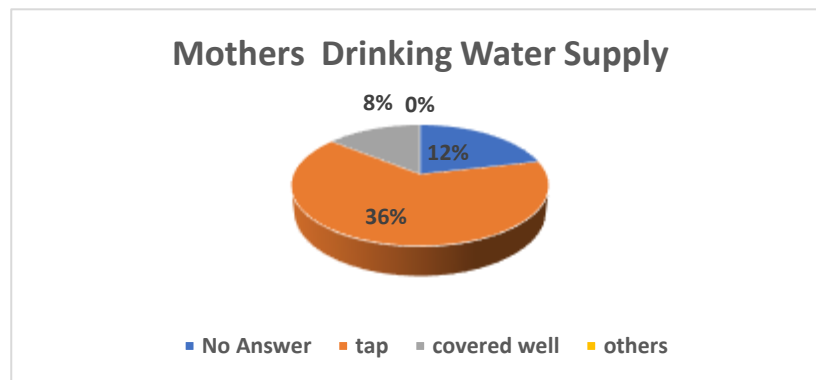


Figure 5: Distribution of Mothers by Drinking Water Supply

According to the study we conducted, the main source of drinking water supply is uncovered wells accounting for 40.0% followed by taps with 36.0%.

I. Anthropometry of the child

Table X: Distribution of children aged 6-59 months by sex

Sex of the child	Nb.	%
Male	39	52,0%
Female	36	48,0%
TOTAL	75	100%

The study reveals that 52.0% of children aged 6-59 months seen are male compared to 48% of females. This shows that the male sex is more exposed than the female sex.

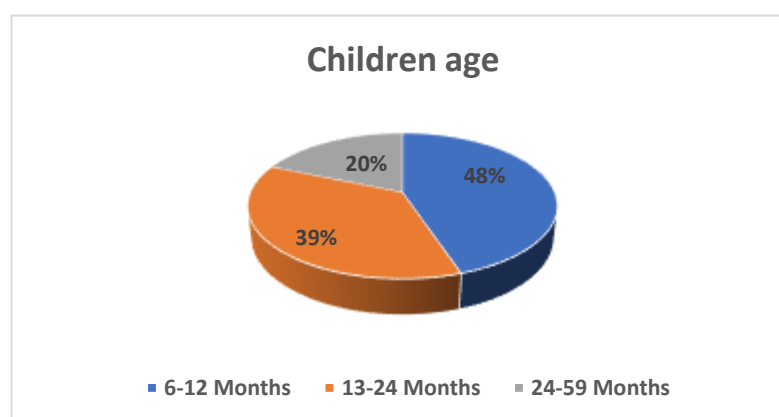


Figure 6: Distribution of children by age (in months)

The median age of children and 21 months, ranging from 6 to 37 months. The 6-12 month age group accounts for 48.0%, followed by 20-26 and 31-37 years representing 20.0% each INRC staff.

Table V: Distribution of INRC staff by TRAINING ON PCIMA

<i>Training on PCIMA</i>	Nb	%
YES	10	100%
NO	0	0.0%
TOTAL	10	100%

THE result of our study shows that 100% of INRC staff have received training on CIMAP. This is due to the fact that the NGO supporting INRC has taken over the training/retraining of all staff.

Table VI: Distribution of Staff by IYCF Training

<i>IYCF TRAINING</i>	Nb.	%
YES	9	80,0%
NO	1	20.0%
TOTAL OBS	10	100%

Our study shows that 80.0% of INRC staff have received training on IYCF.

3.2 Discussion

We conducted a descriptive cross-sectional study with an analytical aim on the Analysis of the determinants of malnutrition in children from 6 to 59 months admitted to the INRC of Konni of the Tahoua region.

The study we conducted reveals that the age group 20 to 25 years and over represented, with 40% of mothers. Our study is similar to that of Mr. BOULAMA MOUSTAPHA Rabo who highlighted that 41% of the mothers of children surveyed were between 20 and 24 years old [16].

According to the result of our study, 44.0% of the mothers of the children surveyed had no level of education. This result can be explained by the fact that in Konni the parents do not attach importance to the schooling of the girl. The latter prefer much more the Koranic school for the female gender hence the 40% of Quranic literate. This result is much lower than that of Mr. BOULAMA MOUSTAPHA Rabo, 86.7% of whom had no level of education [16]. The higher the mother's level of education, the lower the risk of malnutrition her child is. This indicates the importance of literate mothers for a long-term solution to this form of undernutrition. This is the consequence of the low enrolment rate of girls (29%) especially in rural areas that Niger has experienced. The majority of the mothers of children surveyed 84% came from rural areas.

It is recognized in Niger that the health of the population in general and that of children in particular varies from urban to rural areas. [7]

The survey we conducted revealed that 88.0% of the mothers of children aged 6-59 months surveyed are housewives so they have no source of income.

For this result, the reason could be that in this locality the AGRs intended to regenerate the income to mothers are reduced to small businesses carried out by little girls on an outpatient basis.

This result exceeds that of BAMBARA in a study carried out in Madagascar which revealed that 79.6% of the mothers of children surveyed had no source of income. [11] Indeed, in rural areas, low agricultural production leads to a drop in economic income that would be responsible for malnutrition. Added to this is the context of covid-19 of which 56.0% of mothers stressed that the closure of borders and confinement were linked to economic and social degradation.

In our study 100% of children admitted to INRC levels developed at least one disease in the last 2 weeks after hospitalization. Diarrhoea occurs in 70% of cases.

A study by the Lancet found that 25% of growth arrest in children under 24 months of age is attributable to an episode of five or more diarrheas. [30]

It should be remembered that in our study community, the frequency of cases of diarrhea is explained by the promiscuity linked to the high demographic pressure due to concentrations in certain localities.

We note the presence of thousands of returnees from greater Nigeria, but also the arrival of villages displaced from transhumance zones to cultivation areas. The system put in place for waste management and the supply of drinking water is very insufficient to control the onset and transmission of diseases.

Since the child is already predisposed by the factors mentioned above, the slightest inappropriate contact with the child would expose him to an infection that could lead to malnutrition. [30] This could be the case in our study given the proportion of sick children.

Conclusion

The aim of this study was to investigate the determinants of malnutrition in malnourished children aged 6-59 months admitted to the INRC of the Konni Health District. It aimed not only to collect data on children, their parents, but also to determine the socio-cultural, demographic and environmental factors that lead to malnutrition among children. We will not claim to have identified all the factors influencing the determinants of malnutrition among children aged 6-59 months, but we have tried to contribute to the knowledge of the problem and to propose useful elements for the development of a strategy for action to help the competent authorities to better guide appropriate measures to be taken. Indeed, this survey revealed that in Konni the most important factors that determine malnutrition is the lack of education of mothers, the lack of income of mothers and the diseases of children. With these results, we can say that our objectives are being achieved. However, to better determine the other factors, we would like a similar study to look at the general population to have all the information on the determinants of acute malnutrition.

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