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Article

Descriptive study of children's nutritional status and identification of community-level nursing diagnoses, in a school community in Africa

Pedro Melo [1], Maria Isabel Sousa [2], Matilde Mabui Dimande[3], Sónia Taboada[4], Maria Assunção Nogueira[5], Carlos Pinto[6], Maria Henriqueta Figueiredo[7], Tam H. Nguyen[8] and José Martinéz-Riera[9]

1 Universidade Católica Portuguesa, Institute of Health Sciences/Centre for Interdisciplinary Research in Health; Center for health technology and services research, Portugal and Center for health technology and services research, Portugal; pmelo@porto.ucp.pt
2 Universidade Católica Portuguesa, Institute of Health Sciences, Portugal; isabel75ocua@gmail.com
3 Maputo Central Hospital, Mozambique; matimabui@yahoo.com.br
4 Sonae Capital, SC Fitness, Portugal; sonia.taboada@scfitness.pt
5 Cooperativa de Ensino Superior Politécnico e Universitário (CESPU), Instituto de Investigação e Formação Avançada em Ciências e Tecnologias da Saúde (IINFACTS) ; assuncaonog@gmail.com
6 North Region Health Administration, Portugal; carlospintorda@gmail.com
7 Escola Superior de Enfermagem do Porto; Center for health technology and services research, Portugal; henriqueta@esenf.pt
8 William F. Connell School of Nursing, Boston College, Massachusetts, USA; tam.nguyen@bc.edu
9 Universidad de Alicante, Spain; jr.martinez@ua.es
* Correspondence: pmelo@porto.ucp.pt ; Tel.: (+351916725122)

Abstract: Effectively responding to children's nutritional status and eating behaviors in Mozambique requires a community-based care approach grounded in sound nursing research that is evidence-based. The Community Assessment, Intervention, and Empowerment Model (MAIEC) is a nursing theoretical model that bases clinical decision-making for community health nurses using communities as a unit of care. We used the MAIEC to identify a community-based nursing diagnosis to address children's nutritional status and eating behaviors in Mozambique. Objectives: (1) To conduct a descriptive study of children's nutritional status and eating behaviors in a school community in Mavalane, Mozambique, and (2) to identify a community-based nursing diagnosis using the MAIEC clinical decision-making matrix in the same school community. Method: A cross-sectional, quantitative study was conducted to assess the nutritional status of children using anthropometric data, including brachial perimeter and the tricipital skinfold, and standard deviation for the relation of weight-height, in a sample of 227 children. To assess community management of the problem and identify a community-based nursing diagnosis, we surveyed 176 parents/guardians and 49 education professionals, using a questionnaire based on the MAIEC clinical decision matrix as a reference. Results: Malnutrition was identified in more than half of the children (51.3%). We also identified a community-based nursing diagnosis of impaired community management related to the promotion of child health and healthy eating as evident by lack of community leadership, participation, and processing among more than 70% of the community members (parents/guardians and education professionals). Conclusion: A nursing diagnosis and diagnostic criteria for nutritional status and community management were identified. The need to intervene using a multidisciplinary public health approach is imperative, with the school community as the unit of care. In addition, reliable anthropometric data were used to complement the nursing diagnosis and guide future public health interventions.

Keywords: Nutritional Surveillance; Public Health; Community Health Nursing; Public Health Nursing; Children's health; Community Participation

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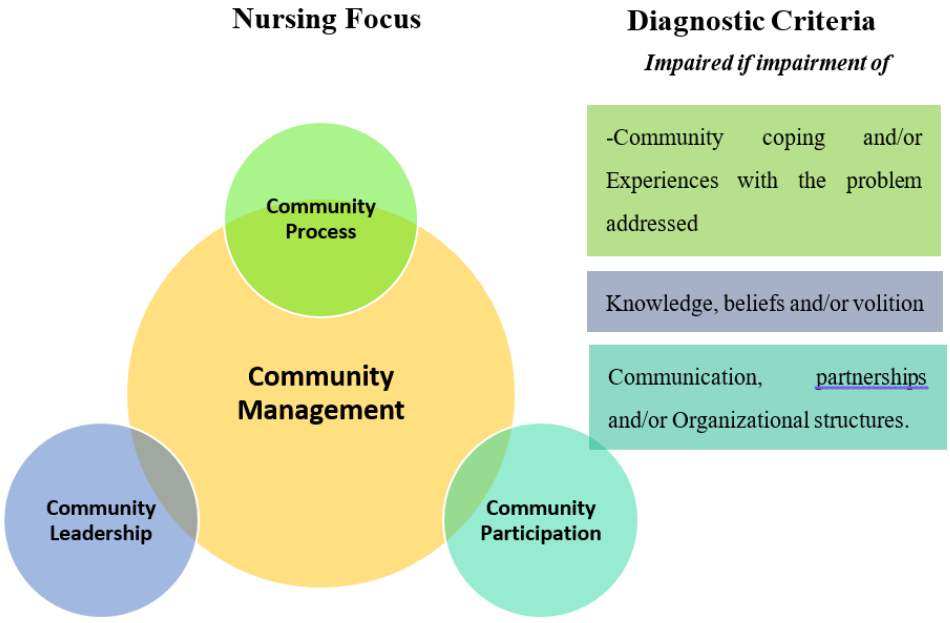
1. Introduction

Framing the community as a unit of care (i.e., approaching the whole community as a client) and promoting community empowerment as both process and outcomes are forming principles of the Community Assessment, Intervention and Empowerment Model (MAIEC) [1-3]. This nursing model has a clinical decision matrix that guides nurses' decision-making in relation to the community as nursing client, figure 1:

Figure 1 - Clinical Decision Matrix components from MAIEC [1-3]



Worldwide, nurses have an international classification system, called the International Classification for Nursing Practice (ICNP) [4]. ICNP provides an agreed set of terms that can be used to record the observations and interventions of nurses across the world. ICNP also provides a framework for sharing data about nursing and for comparing nursing practice across settings. The ICNP diagnostic term that is of central focus in the MAIEC is *community management*. This focus has three dimensions of diagnosis, which are also included in the ICNP:

- *Community leadership* - related to the community's knowledge, beliefs, behaviors and volition in the context of the problem addressed;
- *Community participation*- related to communication, partnerships and the existence of organizational structures;
- *Community process*- related to community coping or experiences with the problem addressed.

MAIEC also has the definitions of Community, Community Health, Community Environment and Community Health Nursing Care, framing, as metaparadigmatic concepts in Nursing, the assumptions and postulates that support the use of this theoretical model (Melo, 2020).

Aligned with the strategic plan for the health sector in Mozambique (2014-2019), which supports the search for better solutions for health, with the involvement of communities, this research was integrated in the Nursing Research Platform of the Centre for Interdisciplinary Research in Health at the Universidade Católica Portuguesa. The MAIEC and its clinical decision matrix [1-3] guided this study to foster a community-based approach to local health problems.

The community that was the target of our research and care was a school community in the neighborhood of Mavalane. In this place there is an institution, created by the Missionaries of Good News, whose objective is to support families and children in difficult and vulnerable situations. Despite the contribution of some economic development, indicated by the Republic of Mozambique (5), Mozambique remains one of the poorest countries in the world, with 46% of Mozambicans living below the poverty line [6].

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According to the strategic health plan [5], one in six children dies before reaching 5 years of age. The infant and youth mortality rate is 178 per thousand inhabitants and malnutrition is responsible for approximately 20% of deaths. Mortality levels are exacerbated mainly by poverty, low literacy of mothers and the precarious supply of drinking water and basic sanitation [7]. Nutritional indicators report that 43% of children under 5 years old suffer from moderate chronic malnutrition and 20% suffer from severe chronic malnutrition [7]. A recent study highlighted the importance of articulating policies and interventions at the local level, as well as training health and education professionals in promoting healthy eating in children [8]. However, local information about malnutrition and community resources in Mavalane are not sufficiently available to effectively guide interventions. Moreover, there is a lack of research using a community-based nursing model, such as the MAIEC, to provide a strong theoretical basis for future interventions. Last, the problem of malnutrition and community management has not been well articulated within the context of the International Classification of Nursing Practice (ICNP), which can help provide consistent language and a framework for interventions in this setting and beyond.

Regarding these public health problems related to child nutrition and unhealthy eating in Mozambique and the evidence of a nursing model that allows having an objective diagnose in community [1-3], we believe that a community-based research should be developed. This research will promote the look of nursing science over the two phenomena: the nutritional status and the community management in order to answer to this problem.

About Nutritional Status, it was not found studies related to nursing decision making, According to International Classification for Nursing Practice (ICNP) this nursing focus represents "Weight and body mass in relation to intake of nutrition and specific nutrients estimated according to height, body build and age."[4]. Specifically related to children Nutritional Status, most of the studies found suggest as good indicators of this Nutritional Status, the anthropometric data, such as brachial perimeter, tricipital skinfold, and the calculation of brachial mass area and brachial fat area. The researchers also suggest as good indicators the Z-scores and the Composite Z-scores [9-14]. This information should be complemented with the evaluation of the Standard Deviation in the Weight-Height ratio in children under the age of 5 years and the Standard Deviation in the Body Mass Index (BMI) for children over the age of five, according to reference values, in the case of this study, published by Mozambique Health Authorities [15-16].

About Community Management, MAIEC's clinical decision matrix allows to adequate the data to the problem of children nutritional status and healthy eating [1-3], and the questions must be defined in a process of expert consensus.

Therefore, the aims of this study are:

- To describe the "Nutritional Status" of school children in the community of Mavalane, Mozambique using anthropometric data;
- Identify a nursing diagnosis focused on "Community Management" related to children's nutritional status and healthy eating, using MAIEC clinical decision-making matrix [1-3] in the same school community in Mavalane, Mozambique.

2. Materials and Methods

The study was developed in a community of schools that provide education to children from 1 to 6 years, at Mavalane neighborhood in Mozambique, Africa.

To assess the nutritional status of children, a cross-sectional, quantitative study was conducted using anthropometric data, including brachial perimeter (BP) and the tricipital skinfold (TS). From this data, brachial mass area (BMA), brachial fat area (BFA), and the respective Z-scores and Composite Z-scores were calculated, as proposed by different researchers (9-14), as a sensitive method to assess nutritional status with the relation of the anthropometric data considered. The collection of these data, not being invasive and having a low cost, were considered ideal for the context of the study since our resources were scarce, namely technological resources like Bioelectrical Impedance Analysis machines. The standard deviation in the Weight-Height ratio in children under

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the age of 5 years and the standard deviation in the Body Mass Index (BMI) for children over the age of 5 was added to the Z-scores, according to reference values for Mozambique (15-16).

The collection of data was conducted by one of the researchers, a student from the Master in Nursing at Universidade Católica Portuguesa. The student was orientated to a children and family approach to communication from the Nurse-Director from Maputo Hospital. Additional training from a researcher, in Portugal, was provided in the area of nutrition, to ensure that the student had all the skills needed to assess the anthropometric data. Universidade Católica Portuguesa provided all the necessary material for the assessment (adipometers and forms).

To the 566 children who attended the schools in the project's partner institution in Mavalane, the following inclusion criteria were applied:

- Attend schools included in the study;
- Have explicit authorization from parents or guardians to be included in the study, in the informed consent form;
- Accept to be evaluated.

The recruitment of children, families, and education professionals was made through the school's directors, who introduced potential participants to the nurse researcher. The nurse researcher, made a first meeting with the parents/children's guardians and school professionals locally, to describe the study, invite them to participate, and provide informed consent forms. Children, parents/guardians, and educational professionals were included in the study if they met all the inclusion criteria and signed the informed consent.

With these criteria, anthropometric data was collected from 227 children. Each child was assessed in a private room close to the classrooms by the nurse researcher to ensure privacy as well as emotional and physical security.

For aim 1: The following diagnostic criteria, based on expert consensus between the researchers' team- nurses and nutritionist, was used to describe the Nutritional Status of children in our study:

- the Z-scores and composite Z-scores, propose by the studies used by reference [9-14];
- The Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard Deviation in the Body Mass Index (for children over 5 years old), proposed by Health Authorities in Mozambique, as described in table 1:

Table 1 - Nursing Diagnoses and diagnostic criteria for Nutritional Status in children.

Nursing Diagnose	Diagnostic Criteria
Severe malnutrition status	Composite Z-score equal or below -2 and/or Standard Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard Deviation in the Body Mass Index (for children over 5 years old) below -2
moderate malnutrition status	Composite Z-score between -2 and -1 and/or Standard Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard Deviation in the Body Mass Index (for children over 5 years old) between -2 and -1
Low malnutrition status	Composite Z-score between -1 and 0 and/or Standard Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard Deviation in the Body Mass Index (for children over 5 years old) between -1 and 0
Normal nutritional status	Composite Z-score between 0 and 1 and/or Standard Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard

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	Deviation in the Body Mass Index (for children over 5 years old) between 0 and 1
High overweight	Composite Z-score between 1 and 2
Very high overweight	Composite Z-score between 2 and 3 and/or Standard Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard Deviation in the Body Mass Index (for children over 5 years old) between 2 and 3
Extreme high overweight	Composite Z-score over 3 and/or Standard Deviation in the Weight-Height ratio (for children bellow 5 years old) or Standard Deviation in the Body Mass Index (for children over 5 years old) over 3

For the evaluation of the community management focus for the promotion of healthy eating in children, a questionnaire was created, by a process of expert consensus with the project researchers, based on the MAIEC clinical decision matrix and administered to the leaders and members of the affected community.

The inclusion criteria for community leaders were:

- Being a coordinator/director of the assessed schools;
- Accept to participate in the study explicitly with a signed informed consent form.

The inclusion criteria for community members were:

- Being a parent or guardian or education professional of the children that attend the assessed schools;
- Accept to participate in the study explicitly with a signed informed consent form.

The questionnaire included two parts. The first part focused on participants' sociodemographic characterization, which included the realization of a genogram and the adapted Graffar scale proposed by Figueiredo (17) applied to parents. The second part of the survey had questions related to the diagnostic dimensions of community management, including:

a) Community Leadership (knowledge, beliefs and behaviors associated with children's health and nutrition – associated with the parental role in parents and the professional role in the education and health professionals involved);

b) Community Participation (perception of the existence of organizational structures and partnerships to promote healthy eating for children);

c) the Community Process (previous experiences with health and food promotion projects).

A pre-test of the questionnaire was carried out on members of a school community with characteristics similar to the population under study (9 education professionals and 20 parents), to assess for clarity and relevance. This school community was excluded from the posterior study. Based on the pre-test, no revisions to the original version were proposed. When we reassess the community management in one to two years, after we develop and implement the intervention, we will be able to assess the questionnaire's reliability and validity, and publish this results at that time. However, we considered the data that resulted from the questionnaire to make a nursing diagnosis that allowed an epidemiological image of the state of community management based on MAIEC.

The questionnaire was administered to 176 out of 227 (77%) parents of the evaluated children and 49 out of 52 (94%) education professionals of the evaluated schools. The data were analyzed with Microsoft Excel 2007. To the statistical analyses was considering the measure of proportion of responses in relation to the diagnostic dimensions proposed by the clinical decision matrix of the MAIEC, described above.

The study was submitted to the ethics committee of the Institute of Health Sciences of the Portuguese Catholic University, which gave a favorable opinion – CE.C. (10) 2018. Informed consent was obtained from all parents and children, with communication adapted to children's age. The study ran from September 2018 to January 2019.

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3. Results

We now present the results related to nutritional status and community management, starting by the first one:

Nutritional status according to age and sex:

The ages of the 227 children evaluated had a minimum of approximately 2 years (23 months) and a maximum 5 years and 9 months. The average age is approximately 4 years (51.24 months). Forty seven percent (107) of the children are male and 53% (120) are female.

Table 2 shows the results of the Z-scores for the different parameters assessed individually, as well as the evaluation of the Z-scores for the set of parameters (composite Z-scores), related to nutritional status.

Table 2. Distribution of Z-scores from BMA, BFA, BP and TS and Composite Z-scores.

Z-score ranges	ZBMA		ZBFA		ZBP		ZTS		Composite Z-scores	
	Fi	Fri	Fi	Fi	Fi	Fi	Fi	Fri	Fi	Fri
-3,00 a -2,00	1	0,4	1	0.4	2	0.8	3	1.3	0	0
-2,00 a -1,00	35	15,2	27	11.7	35	15.2	27	11.7	23	10.7
-,99 a -0,01	84	37,9	100	45.1	72	31.7	95	42.4	92	40.6
= 0,00	0	0	0	0	0	0	0	0	3	1.3
0,00 a 1,00	68	29,7	71	31.2	83	36.4	77	33.9	88	38.7
1,00 a 2,00	31	13,5	22	9.2	29	12.7	17	7.3	18	7.5
2,00 a 3,00	8	3,3	4	1.6	5	2.1	5	2.1	2	0.8
>3,00	0	0	2	0.8	1	0.4	3	1.3	1	0.4
Total	227	100,0	27	100,0	272	100,0	27	100,0	227	100,0

Acronyms description: ZBMA- Z-score for Brachial mass area; ZBFA- Z-scores for Brachial Fat Area; ZBP: Z-scores for Brachial Perimeter; ZTS- Z-scores for Tricipital Skinfold

Considering the statistical analysis related to the percentage distribution of the Z-scores and also the composite Z-scores identified for the different anthropometric measures (which allows an integrated analysis of the Nutritional Status from all the analyzed parameters) we found that 51.3% (n = 119) of children have a very low Nutritional Status (composite Z-score between -2 and 0). Our study identified 10,7% of children with moderate malnutrition..

In relation to children above average weight parameters, we identified only one child (0.4%) with a composite Z-score above 3 and two children (0.8%) with a composite Z-score between 2 and 3.

To these data we added the analysis of the percentage distribution related to the weight/height ratio for children under 5 years old and the Body Mass Index for children older than 5 years.

One hundred and sixty five children under 5 years old were evaluated, which corresponds to 72.7% of the total children evaluated. Table 3 shows the data relating to the Standard Deviation for the Weight-Height ratio, according to the reference values for Mozambique:

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Table 3. Percentage distribution of children under 5 years of age, in relation to the Standard Deviation in the Weight-Height ratio

Standard Deviation Weight-Height Ratio	Frequency	Percentage
-3,00 to -2,00	13	7,8
-1,99 to -1,01	6	3,7
-1,00 to -0,01	16	9,7
0	84	50,9
0,01 to 0,99	8	4,9
1,00 to 1,99	20	12,1
2,00 to 3,00	18	10,9
Total	165	100

In children under 5 years of age, it appears that 7.8% have values of Standard Deviation in the Weight-Height ratio (SD W-H) below"-2"and therefore with a state of malnutrition present in a very high degree. However, 10.9% have values for SD W-H above two, indicating over nutrition.

In children over 5 years old, we analyzed the standard deviation for the BMI (SD BMI/age), according to the reference values for Mozambique. Sixty-two children older than 5 years were evaluated, representing 27.3% of the total children evaluated.

Regarding the BMI/age SD, related to children older than 5 years, the values found are shown in Table 4:

Table 4. Percentage distribution of children older than 5 years evaluated, in relation to the SD BMI/age.

SD BMI/age	Frequency	Percentage
-3,00 a -2,00	6	9,6
-1,00 a -0,01	10	16,1
0,00	34	54,8
1,00	11	17,7
2,00	1	1,6
Total	62	100,0

SD BMI/age- Standart Deviation for Body Mass Index/age

From the analysis of the data presented in table 4, it is identified that 9.6% of children over 5 years of age present a state of malnutrition present in a very high degree (SD BMI ≤ -2) and 1.6% have over-nutrition (SD BMI = 2).

According to all the data, the following descriptive assessment can be made about children's nutritional status:

- *Severe malnutrition status* in 7,8 % of children under five years old and 9,6% of children older than five, but considering the whole sample and the Z-scores of the anthropometric data assessed these diagnosis has an expression of 1,3% and 0, when considered the composite Z-scores;
- *Moderate malnutrition status* in 13,3% of children under five years and 0% in children over 5 years old. Considering the whole sample and the composite Z-scores, it was identified 10,7% of the children with this nursing diagnosis;
- *Low malnutrition status* in 3,7 % of children under five years old and 16,1% of children older than five years old. Considering the composite Z-scores this diagnose represents 40,6% of the whole sample of children.

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- *Normal nutritional status* in 55,8 % of children under five years and 54,8% of children above five years old. However, considering the composite Z-scores of anthropometric data this percentage lows to 40% of the children assessed.

- *High overweight* in 12,1 % of children under five years old and 17,7% of children over five years old. Considering composite Z-Scores this percentage lows to 7,5% of the sample of children.

- *Very high overweight* in 10,9% of children under five years old and 1,6% in children above five years old. According to the composite Z-scores of anthropometric data this diagnose represents 0,8 % of children.

- *Extreme high overweight* in none of children, considering the standards deviation for Weight-Height Ratio in children under five and BMI/age for children above five. However, considering the composite Z-scores of anthropometric data, it was found a percentage of 0,4% of children with this nursing diagnosis.

Assessment of community management

In the context of the community management focus, 49 education professionals were surveyed, of which 98% (48) were female and the majority (44.9%, n = 22) were in the 30-39 age group.

Regarding educational qualifications, 44.9% (n= 22) have between the 11th and 12th year and 64.2% (n=27) have schooling from the eighth to the twelfth year. Fifty-nine percent of education professionals have the category of child educator, which requires specific training in the area of early childhood education.

Relating to parents, from the 176 assessed, 45% (n= 79) were between 20 and 29 years old, followed by 35% (n= 62) between 30 and 39 years old, and 20% (n = 35) below 20 years old. From the analysis of genograms and Graffar scales, it was found that 61% of the sample of parents refers to extended families with a predominance of lower middle class (52%, n = 91) and low class (19% - n = 33).

Regarding the nursing diagnosis, we identified the diagnosis of *impaired community management*. Table 5 presents the whole nursing diagnosis focused on community management, concerning the three diagnostic dimension proposed by MAIEC, and all the sub-diagnoses and identified in the community (parents/children guardians and educational professionals):

Table 5. Diagnostic dimensions diagnoses and sub-diagnoses identified in the context of the administrative management focus.

Diagnostic dimensions Diagnoses	**sub-diagnoses**
Impaired Community Leadership	**Parental Role:** ***Cognitive dimension*** Knowledge about healthy eating (food quality) not shown in 98% Knowledge of community resources to seek informational support about food not demonstrated in 85% knowledge about caring for children with gastrointestinal disorders not demonstrated in 77% knowledge about nutritional status assessment of children not d demonstrated in 77% ***Behavioral dimension***: Adherence behavior to adequate water intake by children not demonstrated: inadequate amount of daily water in 82% Adherence behavior to the appropriate number of meals not demonstrated in 100% Adherence behavior to food of adequate quality not demonstrated in 85%

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	Adherence behavior to daily soup consumption by children not shown in 94% Adherence behavior to control the consumption of sweets by children is not adequate in 79%
	Professional Role (Education Professionals): ***Cognitive dimension:*** Knowledge about assessing children's nutritional status not demonstrated in 92% of educators Knowledge about caring for children with diarrhea not shown in 71% of educators Knowledge about resources for information on food security not shown in 78% of educators Knowledge of suitable fruit portions for children not demonstrated in 94% of educators Knowledge about School Health Program content not shown in 57% of educators. ***Behavioral dimension:*** Adherence behavior to candy consumption control not demonstrated in 70% of educators
Impaired Community Participation	Inexistence of organizational structures to promote health and healthy eating in children, in the perception of 100% of the evaluated community members; Inexistence of Partnerships related to the promotion of health and healthy eating in children, in the perception of 100% of the evaluated community members Inexistence of a communication mechanism on the issue of child health and nutrition, in the perception of 100% of the evaluated community members
Impaired Community Process	Impaired community coping- no previous experience associated with children's health problems and food perceived by 100% of community members.

4. Discussion

The assessed data allowed identifying, according to the diagnostic criteria defined by the research team, different nursing diagnoses, using ICNP as reference [4]. Also is evident that the weight-height parameters used by health services to assess children health concerning to nutritional status, in a public health perspective, have advantages in using the anthropometric parameters used in this study, because it gives a deeper analyses of nutritional status, beyond the relation weight/height. The studies that were reference for this research are, this way, confirmed as good orientations to be used as complementary methods to assess nutritional status in children in a public health perspective and to identify nursing diagnoses in this ICNP focus. The interdisciplinary approach between nurses and nutritionists was identified as important in the research approach that promoted the dialogue between these two professionals in the discussion of diagnostic criteria to assess children's nutritional status.

Being a priority in public health in Mozambique with a relevant impact on child morbidity and mortality, the data support the important need to intervene on improving the nutritional status of children, that has been diagnosed as problematic. Considering the data from Mozambique authorities, relating children mortality with community-based problems [7], it was important the assessment of a community-based diagnosis, using MAIEC [1-3].

The assessment of community management (together with members and leaders of school communities) to promote healthy eating and skills to assess the problem, revealed a serious impairment in several dimensions. Both in parents and in education professionals, there had very

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high knowledge deficits about adequate nutrition and children's health surveillance (over 70% in all dimensions evaluated and in some cases over 90% of members and leaders assessed). The behavioral dimension was also identified as being impaired to a very high degree, both in the children's parents and in education professionals, with inadequate eating behaviors and equally inadequate monitoring of eating habits.

The lack of organizational structures and partnerships in the community to promote adequate eating in children and children health intensifies the problem. Taken all together, the following nursing diagnosis were identified: *impaired community management* for child health promotion, specifically concerning nutritional status, related to *impaired community leadership*, *impaired community participation*, and *impaired community process*. This diagnose in community allow understanding that MAIEC was a useful model in the approach of the community, allowing in an objective way to evaluate community management, in a community-based approach to answer the problem under study.

This study has several limitations. First, it is a cross-sectional and descriptive study. Therefore, the results relate to the sample studied and the period studied, and are reflective of the children who participated in the study and attend the schools covered in the project. Multivariate analysis was not used to predict the impact of nutritional status on other variables under study, like children's age, family's social status, etc. We intend to present these analyses in a posterior paper. Regarding the questionnaire for the evaluation of the community management focus, even though a pre-test was conducted, the cultural aspects do not guarantee the understanding of all questions in the same way, by all participants in the study. Future studies will address this as well as assessing the reliability and validity of the questionnaire,.

Despite these limitations, the study has contributions to the profession of nursing, to the science of nursing and to the society.

As contributions to the profession, this study provides a path and foundation for future interventions, based on a clinical decision that considers community as a unit of nurses' care. In addition, collaborating with local political and organizational structures, including members and leaders from schools and surrounding organizations from community, increases the chance for future interventions to succeed.

Interdisciplinary synergies were also promoted, based on public health and community health from the perspective of nursing and nutrition, in order to obtain health gains, namely those sensitive to community and public health nursing and nutrition care.

As contributions to society, this community-based research study improved citizenry and community participation, thereby strengthening the community's resources to improve nutritional status and children's health, and addressing a local public health priority.

As contributions to the research, the application of a theoretical model of Nursing, MAIEC, was used on a problem where it had never been applied. This facilitated clinical decision making for nurses, in the context of the community as a client, related to the nutritional status and children's health. Other experiences in other contexts have shown the advantage of consider community as target of nursing care [18,19], but this project was innovative in relation to nutritional status and children's health. In addition, using the MAIEC decision matrix to guide future community-based longitudinal intervention will increase the likelihood of improving community management; a central focus of the attention of the community health nursing specialist.

Future research in this area must ensure that a multidisciplinary approach, between nursing and nutrition sciences, is used to monitor the nutritional status of children. To achieve this, the assessment of nutritional status should be repeated, using the same procedures and in the same sample, after applying the interventions proposed by MAIEC, with an interval of 1 to 2 years after its application to adequately assess the impact of the changes promoted in the community as it relates to the nutritional status of children.

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4. Conclusion

The diagnosis of the health status of a population, in this case of children from a school community in Mozambique, using a multidisciplinary approach, allowed the identification of an impaired nutritional status regarding its prevalence in the context of malnutrition and overnutrition. The multidisciplinary data analysis (nursing and nutrition) allowed the identification of the nursing diagnosis: impaired nutritional status, supporting it with the diagnosis of the nutrition area, in a public health perspective.

At the same time, the approach of the School Community as a care unit, in a systemic perspective and shaped by a theoretical nursing model, MAIEC, allowed the identification of the community health nursing diagnosis: impaired community management to the promotion of children health and healthy eating in children.

Author Contributions: Conceptualization, 1,2,3 and 4.; methodology, 1-,4.; software, 1.; validation, 1-9.; formal analysis, 1,2,4.; investigation, 1-9.; resources, 1-4.; data curation, 1-4.; writing—original draft preparation, 1; writing—review and editing, 1-9.; visualization, 1-9.; supervision, 1.; project administration, 1. **A**ll authors have read and agreed to the published version of the manuscript.

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