English summary

Background

Moderate acute malnutrition (MAM) affects around 33 million children and is a major global health problem, causing increased morbidity and mortality and delayed cognitive development. Despite the development of lipid-based nutrient supplement (LNS) and enhanced versions of corn-soy blend (CSB) in recent years, there is currently no standardized practice for the management of MAM. An optimal nutritional composition alone is however not enough for successful nutritional interventions. Acceptability of the foods provided to treat MAM is also key in the successful outcome as is feeding behaviours, since MAM is treated within the communities. Information on these aspects is therefore crucial when it comes to the understanding of the effectiveness of supplementary foods for the treatment of MAM.

Methods

The study was conducted as part of the TreatFOOD trial, a randomized controlled trial assessing the effectiveness of new formulations of CSB and LNS. It was divided into two phases and comprised 1) a pilot study with 180 healthy children involving an observed test-meal and a three-day take-home ration, followed by questionnaire-based interviews to evaluate the acceptability of the different formulations of supplementary foods in healthy children prior to the TreatFOOD trial and to explore potential barriers to supplementary foods that could affect acceptability. 2) Within the context of the TreatFOOD trial, a study was carried out to evaluate the acceptability of the different formations of supplementary foods in children with MAM and to explore and compare feeding behaviours related to supplementary feeding with CSB and LNS. This part of the study involved 1,546 children and their caretakers as well as a subsample of participants and included a mixed method approach using questionnaires, focus group discussions, home visits and interviews.

Results

The pilot study showed that both CSB and LNS were equally well-accepted and there were no indication that the level of milk or the quality of soy had an impact on the organoleptic properties of the foods in healthy children. Nevertheless, more children receiving CBS had leftovers compared to children receiving LNS. Similar supplementary foods used for the prevention and treatment of malnutrition were generally well appreciated in the study context, although LNS was considered different from local foods and to a higher extent associated with medicine.
During the TreatFOOD trial, we found that although all products received good ratings, LNS was more appreciated as was both LNS and CSB with high content of milk. In terms of organoleptic parameters such as taste, texture and odour, the content of milk and quality of soy did not affect acceptability. As in the pilot study, CSB was not as readily consumed as LNS and was to a higher degree considered difficult to manage. Both products were considered as a medical treatment and beneficial to child’s health. Furthermore, an encouraging feeding style was more likely to be applied when feeding with LNS, while a forced feeding style was more frequently applied when feeding CSB, which was often served unprepared and not as frequently as recommended. Finally, a certain degree of household sharing of both CSB and LNS was found.

**Conclusion**

The findings suggest that both CSB and LNS were well accepted, but CSB yielded more leftovers and was to a higher degree considered difficult to manage. Also, CSB was often not served as frequently as recommended and it was consumed unprepared. Furthermore, forced feeding was more frequently applied when feeding CSB and it was more likely to be served as a meal, whereas LNS stimulated an encouraging and more tactile feeding style and was more likely to be mixed into other foods. Supplements with high content of milk received better ratings in terms of child and caretaker appreciation and both LNS and CSB were considered to have medicinal qualities. Household sharing of both CSB and LNS was found.

The findings presented in this thesis support the findings related to the effectiveness of the TreatFOOD supplements by determining how and for what reasons supplements developed for the treatment of MAM are accepted in the given context and how, when, where and by whom they are used. Thereby the findings contribute to the evidence base related to the management of children with MAM.