

The study identified factors that influence acceptance of institutional meals by students at public and private universities in Uganda.

Constant agitation of students institutional meals suggested a problem in the catering systems, particularly in boarding institutions such as universities in Uganda. Attendance at meals was poor. Students complained that the quantity of food served to them was inadequate and could not satisfy hunger but at times it was observed that a lot of cooked institutional food was left uneaten causing wastage. Students cooked in their residential rooms or bought food from food vendors. There was need, therefore, to investigate and analyze the problems related to management of institutional meals.

The aim of the study was to identify factors that influence acceptance of meals by students at Makerere University and Mbarara University, the selected public universities, and Nkumba University and Nkozi University, the selected private universities in Uganda. The information on students' perceptions of institutional meals was obtained from 403 student respondents through use of self-administered questionnaires. The student respondents were selected proportionately from the target student population. Interview guides helped in obtaining information from the administrators and food handlers to explain issues related to institutional meal management. Observation checklists were used to get first-hand information regarding management of the meals. Relevant documents, such as menu plans and recipes, were also analyzed.

Proximate (chemical) analysis for nutrient content of food samples collected from cooked meals at the universities was carried out to assess the nutritional adequacy of cooked meals with special emphasis on metabolisable energy value of the diet. The chemical food analysis findings were compared with the values from planned meals, which had been calculated from institutional menus using Food Composition Tables prepared for East, Central and Southern Africa by World Health Organization (1987). The nutrient allowances for each student in institutional meals were compared with the World Health Organization (WHO, 1987) recommended dietary allowances (RDAs) for the specific age group (19-30 years) at moderate physical activity level.

With exception of Nkozi University, students considered institutional meals not only unpalatable owing to the unacceptable appearance (77%), taste (78%) and flavour/aroma (79%), meals were also found inadequate in quantity. While the metabolisable energy of planned meals at Makerere University (2924 kilocalories) and Nkumba University (2952 kilocalories) appeared to be within acceptable ranges, the diets at Mbarara University (4341 kilocalories) and Nkozi University (3617 kilocalories) would suggest excess energy value in terms of metabolisable energy.

But the actual food served to students, regardless of the status of the institution appeared to be inadequate. The food for meals was never enough even when high student turn up was expected: therefore, there was tendency to serve small quantities for everyone to get a portion of food. The students were actually starving, especially those who were financially disadvantaged.

On average, the metabolisable energy of cooked food at Makerere University was 700 kilocalories per day, mainly obtained from protein-rich foods, with little carbohydrate source. On the other hand the cooked meals at Mbarara University yielded 440 kilocalories per day. The

meals at Mbarara University had the lowest energy value compared to the meals at the other universities that were studied.

If eaten in estimated quantities, the cooked food at private universities appeared to be slightly better than that at public universities, although it would not meet the recommended allowances of the nutrients either. Nkumba University diet would yield metabolisable energy of 958 kilocalories per day, mainly derived from fat, while Nkozi University diet would yield 1410 kilocalories per day. The targeted energy RDA of 2200 kilocalories for females and 3000 kilocalories for males remained too high to be attained by institutional diet. The big question was on what happens to the food in menu plans if it was purchased at all!

The study showed lack of seriousness on the side of universities when handling institutional food. Everything was taken for granted. The cooking facilities were inadequate because all the attention was geared towards academic facilities. When planning meals was not considered. In any case, the technical knowledge and skills in food handling were not appreciated. Therefore there was tendency to recruit any one to handle institutional meals while those engaged in menu formulation focused on financial control.

The marginalized catering officers had no morale to supervise their subordinates therefore the food cooked for students was unpalatable and not even enough to go round. There was dishonesty in the system where all the parties concerned would share blame. Other than illegal meal cards that were issued to people who were not supposed to eat the food, food also disappeared from stores and never found its way into the cooking pots contributing to poor aesthetic and nutritional quantity of meals. Members of the kitchen staff were also overworked because in some institutions they doubled as waiters. In such cases they were bound to make mistakes in handling the food. It also contributed to poor timing of the meals especially where students had to attend to their studies during mealtimes. The time set for meals need to be adhered to so that all students get their share of the food.

It is therefore recommended that universities improve on food handling facilities, especially appropriate kitchen facilities. Kitchen staff should not be overworked. Food handlers with relevant technical knowledge and skills should be recruited and special attention paid to nutritional quality of meals for the age groups rather than emphasizing quantity of food. Seminars and workshops should be organized for food handlers to sort-related problems.

Universities have to cultivate honesty among workers so that loss of the budgeted food does not affect students. The work of food handlers needs to be respected and appreciated so that they get motivated to work efficiently and effectively. Effective monitoring and supervision of food preparation and service need to be promoted so that problems are corrected in time.

Students have to be facilitated to enjoy their meals; for instance, sitting arrangement at meals needs improvement. The aesthetic and nutritional quality of meals should be worth the money paid for feeding. Food vending should be more organized and made legal so that students are able to have a meal when they want it. If institutions cannot manage running the catering services efficiently and effectively, catering service should be privatized to capable contractors.

It should be appreciated that hungry students would not achieve much from the education system. Therefore, nutritional policy at national level needs to be strengthened to enlighten the population on the relevance and application of nutritional knowledge in food selection from available foods, cooking and consumption to promote good health and productive life.