Abstract of Master's Thesis

Course	Master of Public Health	Name	Aiko Inoue
Thesis Title	Assessment of Acute Malnutrition among Hospitalized Children in Siddhi Memorial Hospital, Bhaktapur, Nepal		

Background:

Malnourished children suffer from growth retardation, severe infectious diseases, and more prone to die. In Nepal, approximately one third of children under five suffer from malnutrition in 2016. Although hospitalized children are at high risk of malnutrition, systematic anthropometric measurement to detect malnutrition is lacking in hospitals in Nepal.

Objectives:

To assess the prevalence of acute malnutrition (wasting) among hospitalized children, and compare systematic anthropometric assessment with doctors' diagnosis. Specific objective was to investigate the epidemiological and clinical risk factors for malnutrition in hospitalized children.

Methods (Study design):

In this cross-sectional study, we enrolled 424 children of six months to 15 years old who were admitted to the pediatric department of Siddhi Memorial Hospital (SMH), Bhaktapur, Nepal. Epidemiological, clinical, and laboratory data were collected using structured questionnaire forms, and anthropometric measurement (e.g. weight, height, arm-span, mid-upper arm circumference (MUAC), and head circumference) was conducted at the time of admission and discharge. The prevalence of wasting was calculated using weight-for-height z-scores (WHZ) for children under five years, and body-mass-index (BMI) for age z-scores for older children. Risk factor analysis was conducted using logistic regression.

＊　The abstract, containing the objective, method, result and conclusion should not exceed c.1000 words (300-500words/page, double sided on A4 paper)

Abstract of Master's Thesis

Course	Master of Public Health	Name	Aiko Inoue

Results:

The prevalence of wasting was 9.67% (41/424) at the time of admission, and 8.96 % (38/424) at discharge. During hospitalization, 94.57% (401/424) of study population remained at the same z-score category as admission, while 3.07% (13/424) improved and 2.36% (10/424) worsened. Risk factors associated with the deterioration of nutritional status included age one to five years (AOR=5.09; 95%CI: 1.13-22.99; P=0.04), six to 15 years (AOR=10.67; 95% CI: 2.18-52.27; P<0.001) compared to six to 12 months of age, diarrheal diseases (AOR=4.86; 95%CI: 1.76-13.42; P<0.001), and suffering from major house damage due to earthquake (AOR=2.75; 95%CI: 1.03-7.35; P=0.04). Ward doctors detected acute malnutrition in only 0.47% (2/424) of children at admission and 0.94% (4/424) at discharge, which were far below from the results of the systematic anthropometric measurement.

Conclusion:

Malnutrition remains an un-recognized problem in hospital-settings. This study highlights the need for systematic anthropometric measurement at the time of admission and discharge. Supplementary feeding, nutritional counselling and proper referral after discharge are required for those who are at the risk of development of wasting, and need a careful watch for a sign of deterioration of nutritional status.

＊ The abstract, containing the objective, method, result and conclusion should not exceed c.1000 words (300-500words/page, double sided on A4 paper)