

Abstract of Master's Dissertation

No.1

Course	International Health Development	Name	Tasuku Takeuchi
Thesis Title	Evaluation of nutritional status change in 20 years and its relationship with blood pressure among young adults in rural Kenya		

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Background:

Individuals in developing countries are susceptible to non-communicable diseases (NCDs) more than ever. Though it is difficult to name a single cause, mismatches between human biology and rapid lifestyle changes are culpable for this rise. Some researchers emphasise the importance of individual's early life experiences upon his/her susceptibility to NCDs in adulthood. The importance of life course approach has been gaining attention. Nevertheless, little is known on the related topics in rural populations in developing countries. The number of longitudinal studies is particularly scarce.

Objective:

The purpose of this study is to investigate the 20-year change in anthropometric indices among the former children aged 5 to 19 years who have participated in the 8th Selective Mass-Chemotherapy of Urinary Schistosomiasis in Mwachinga, Kwale County, Kenya in 2001. And to investigate its association with their current blood pressure.

Method:

The former participants now aged 25 to 39 years-old were followed up and their height, weight, and waist circumference were measured as well as their blood pressure. Childhood and adulthood nutrition status were evaluated based on height-for-age z-score, body-mass-index (BMI)-for age z-score (BAZ), BMI, and waist circumference. Correlations in childhood and in adulthood were calculated for each sex and age-group. Finally, blood pressure was measured and its association with nutrition status change were investigated. Two-way ANOVAs were conducted for each age-group in both sexes to evaluate the effects of childhood HAZ or BAZ and of adulthood central obesity

Results :

The follow-up rate over the 20-year period was 17.1% for male and 7.5% for female due to a large number of emigrations. Undernutrition, particularly stunting, was prevalent at baseline. In adulthood, on the other hand, participants were facing overnutrition while

undernutrition was still observed for a certain extent. Double burden of malnutrition was observed among the participants. Their blood pressure, however, lay within the normal range. Systolic blood pressure of men aged 25 to 29 and 35 to 39 years differed in accordance with their current central obesity status. The main effect of childhood anthropometry was only observed in the group of male aged 25 to 29 years old. Among this group, HAZ status influenced the current systolic blood pressure. Other than that childhood nutrition status did not influence the current blood pressures.

Conclusion:

Overweight/obesity in rural Kenya can be on the rise. Mechanism behind is to be probed. While childhood anthropometry had a certain effect, systolic and diastolic blood pressure were mainly influenced by the current anthropometry.

* The abstract, containing the objective, method, result and conclusion should not exceed 300-500 words and printed double sided on A4 paper)