Abstract of Master's Thesis

Course	International Health Development (MPH)	Name	Satomi Ichino		
Thesis	Effect of Different Communication Tools for Health Education: A Study to				
Title	Examine Factors Affecting Correct Knowledge Acquisition in Rural Madagascar				

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Objective :

Acquiring correct knowledge is crucial to health education, thus information needs to be formulated and disseminated in a pattern that people can acquire easily and correctly. The general objective of the study is to compare effect of different communication tools on understanding information disseminated in health education. The specific objectives are; i) To investigate if exposure to different communication tools have effect on acquiring correct knowledge on specific health message;

ii) To assess if different visual representations i.e. Actual photo, Realistic picture, or Simplified illustration used in materials for health education are correctly understood and interpreted by the rural Malagasy population.

Method :

In order to examine factors affecting the acquisition of correct knowledge, especially for those who are rarely exposed to communication media, two different tests were conducted in rural areas of Madagascar. Test 1 examined whether exposure to any of a number of different communication tools (Radio, Flip chart, Video) offered more potential for gaining correct knowledge. Test 2 aimed to assess how different visual representations (Actual photograph / Realistic picture / Simplified illustration) used in the health education program were correctly interpreted by the target audience. Both tests targeted pregnant women recruited at antenatal care offered at local health centers, who were estimated not to be exposed to communication media regularly.

Result :

For Test 1, participants (N=220) took 10-point-quiz before and after exposed to breastfeeding promotion message and the average scores they gained were compared between the communication tools (Radio: 2.01, Flip chart: 2.58, Video: 2.53). Kruskal-Wallis test to compare the average scores gained between three communication tools did not show any statistical significance (p=0.09). Although the effectiveness of each respective communication tool could not be discussed on the basis of the results, the scores achieved during the post-exposure test were similar for each tool (Radio: 8.19, Flip chart: 8.00, Video: 8.19).

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

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Among several potential factors that might affect to achieve higher score after the message exposure, ability to read and possession of radio and/or TV had correlation to the higher knowledge acquisition, as a result of multiple logistic regression analysis. In terms of the knowledge they acquired, the participants had difficulties in remembering specific terms and ideas, while numeric or binary (e.g. proper/improper) type ideas were memorized well. In order to discuss how different characteristics of communication tool affect the result of health education, further study is required.

Test 2 examined if 20 objects presented in three different representations were properly interpreted by the participants (N=79). One-way analysis of variance was performed to detect differences in mean scores of correct answers between three different representations (Actual photo: 7.71, Realistic picture: 7.44, Simplified illustration: 7.10), which did not confirm any statistical significance (p=0.06). General trends of the results indicated Actual photo seemed to enhance correct interpretation of the objects; however, Realistic picture might be appropriate to represent objects which is difficult to be generalized and hardly recognized if simplified (e.g. Feeding bottle, Thermometer, Hospital), while Simplified illustration might be preferred when several components are combined in one picture (e.g. Taking child to hospital).

Several objects were hardly recognized by the participants. Analysis of 9 objects which had less correct recognition implies; 1) objects which are unfamiliar to the participants, 2) pictures with multiple components, and 3) objects which have other similar representations. It should also be noted that some "coding" of the pictures might not be appropriate so that some participants were not able to interpret correctly.

Opinions of the participants gave some hints to facilitate correct interpretation: to add some other objects to assist imaging the context, making emphasis on the symbols or characteristics, and proper choice of gestures for representations reflecting the targets' practice and culture.

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Conclusion:

In conclusion, regardless of different communication tools used for health education, no difference was confirmed in their achievement, namely, the amount of correct knowledge they acquired. The maximum knowledge the participants could acquire might have limitations, regardless of the amount of knowledge they had before the message exposure. Those who do not have ability to read, and those who do not possess radio and/or TV at their household would be vulnerable in acquiring knowledge, thus health education in rural Madagascar needs to be formulated paying special attention for those population.

In terms of visual representations used in the communication tools, proper style of representation needs to be chosen according to the objects. Choosing proper representations that reflect the targets' living context is essential for correct interpretation of the visuals, which may facilitate correct knowledge acquisition.

Therefore, developing plans specifically targeting vulnerable populations, employing proper visual representations will be fundamental of health education in rural Madagascar.

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