Abstract of Master's Dissertation

No.1

Course	Master of Public Health	Name	Mari Masuzawa
Thesis Title	Effectiveness of short message service in COVID-19-related behavioral changes: a mixed methods study in Kwale county, Kenya		

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Background :

mHealth is defined as "using mobile wireless technologies for health". In Kenya, the Ministry of Health (MoH) implemented two types of mHealth programs: (i) SMS messaging for raising awareness (awareness message) on COVID-19 prevention; and (ii), a COVID-19 vaccine second dose reminder (reminder). It is unknown the effectiveness of the SMS for changing individuals' behavior.

Objectives :

The general objective of this study was to estimate the effectiveness of COVID-19-related SMS in behavioral change among the residents in Kwale, Kenya. The specific objectives were composed of: (ⅰ) to estimate the proportions of households and individuals who received COVID-19-related SMS; (ⅱ) to describe how individuals perceived the COVID-19-related SMS and whether they has influenced their behavior on COVID-19 prevention; and (iii) to identify the determinants of individuals' KAP on COVID-19 in both qualitative and quantitative manners.

Methods :

This study employed a mixed-methods of explanatory sequential design.

Household survey targeting individuals aged≧18. Sample size was calculated enabled to estimate the proportion of households at least one member receiving SMS message(s) (n=148). To identify the determinants of KAP on COVID-19, bivariate and multivariate analyses were conducted.

Informants were purposefully selected for key informant interviews from the participants in household survey. The contents of the interviews were transcribed and deductively coded for thematic analysis. Quantitative and qualitative data were comprehensively analyzed and interpreted.

＊ The abstract, containing background, objectives, methods, results and conclusion should not exceed 300-500words and printed double sided on A4 paper)

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Results :

At least one member of seventy-six of 139 households (55%) received awareness messages. Moreover, 122 of 281 participants (43.4%) received awareness messages.

The proportions of participants practicing hand washing were smaller among those having received awareness messages (42.6%) than those not(p=0.425). While the proportions of participants practicing wearing mask were greater among those having received awareness messages (56.5%) than those not(p=0.186).

Only 37 of 83 (45%) participants were eligible foreseeing a reminder. Among the 37 participants received a reminder (87.1 %) was greater than those who did not (12.9 %) (p=0.003). The proportions of participants vaccinated (second dose) were greater among those having received reminder (87.1%) than those not (p=0.003).

Educational attainment, sharing mobile phone with mothers, obtaining COVID-19 information from religious meetings, being a uniformed officers were identified as the determinants on KAP on COVID-19.

Eighteen informants were selected in maximum variation. Eight themes emerged from the thematic analysis. Positive perception on using COVID-19 related SMS was narrated. Those messages positively impacted their health behavior. Of eight themes identified, six (educational attainment, nature of occupational characteristics, water shortage, religious belief, vaccine hesitancy, and traditional medicine) were found to be factors influencing KAP on COVID-19.

Conclusion :

The greater of mobile phone coverage among the participants, public health messages through SMS would certainly have an effective on people's well-being. This study showed the effectiveness on vaccine reminder. It is recommended that the SMS reminder be transmitted to those having completed the initial vaccination.

From the analysis of KAP on COVID-19 prevention, health education from religious leaders would be effective. Uniformed officers should be recognized as the priority target group for vaccination-related awareness promotion. (492words)