An Evaluation of the Capacity of the Kisiizi Hospital Health Insurance Scheme to Provide Health Education to Member Population

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A thesis
submitted in partial fulfillment of the
requirements for the degree of

Master of Public Health

University of Washington

2014

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Program Authorized to Offer Degree

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Abstract

An Evaluation of the Capacity of the Kisiizi Hospital Health Insurance Scheme to Provide Health Education to Member Population

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Background*:* Gaps in health care financing and absent risk coping strategies have led to an influx of new community health insurance (CHI) schemes in developing countries. These CHI programs have reduced the burden of health care cost, but have achieved variable levels of success in improving the health outcomes of member populations. Kisiizi Hospital (KH) has an existing CHI, the KH Health Insurance Scheme (KHHIS). KH administration seeks to modify the scheme to better respond to patient needs and improve health outcomes for patients through increasing patient knowledge. This study was conducted to determine if community leaders in the KHHIS catchment area could effectively educate the KHHIS member population on topics presented at a KHHIS health promotion workshop. ***Methods:*** This study was a prospective quasi-experimental study. The intervention included training of

community leaders on selected health topics during a one-day workshop. A proportion of the community leaders were instructed to educate members of their village. To assess the success of this intervention we performed a community-level knowledge assessment to measure the ability of leaders to pass on health information. The training workshop included 72 village chairpersons and the community survey included 5 engozis (villages) as a training group and 6 engozis as a comparison group. Two sample t-tests were performed to determine whether the training increased the health knowledge of members. ***Results:*** There was a 0.37 mean score increase observed in the training group and a 0.53 mean score increase observed in the comparison group; but the results were not statistically significant. ***Discussion*:** Utilizing trained community leaders to educate KHHIS members did not result in a significant knowledge change among the member population. We recommend modifications to future iterations of this health education program to increase the likelihood of success.

Introduction

Health needs and health care in the developing world are changing as non-communicable diseases are forming a rising percentage of disease burden (IHME, 2013). The private health sector has developed in the hopes of filling the gap in need as structural adjustment programs have crippled public health systems. Fragmented systems struggle to deliver care and are slow to respond to changing needs. With over half of the private expenditure in Sub-Saharan Africa coming out of pocket (WHO, 2012), there is a devastating impact of health care costs on family units. Through foreign interest and host country insight, community health insurance programs are sprouting up to provide the populace with strategies for medical care financing.

Community health insurance (CHI) programs in Uganda are increasing due to the population's need for protection against catastrophic health care costs (Dekker & Wilms, 2010). Many utilize risk-coping strategies such as the sale of property or acquiring informal loans to cover health costs. As a result, they frequently experience significant reductions of livelihood in the form of reduced potential income and family capital loss. Much of the population continues to seek care at private facilities, which make up 40% of total care centers, despite the fact that user fees were discontinued at government facilities (Basaza, Criel, & Van der Stuyft, 2008). People select private care centers as they are believed to provide higher quality care than their government counterparts (Basaza et al., 2008). This rise in community health insurance has led stakeholders to study the impact of health insurance on health outcomes. New research is reporting how health insurance can actually negatively affect health care utilization and health outcomes (Fink, Robyn, Sié, & Sauerborn,

2013). It seems although the presence of CHI is assisting people in affording health care, it does not ensure improved health outcomes for its members.

The Kisiizi Hospital Health Insurance Scheme (KHHIS) was formed in response to this lack of health care financing strategies in the Kigezi region. Currently, KHHIS has a member population of about 35,650 people which are divided into 177 groups called "engozi". Historically, engozi were villages associations formed to ensure that a member would have transportation to the hospital in case of illness. Funding and support from the Ugandan Ministry of Health and United Kingdom's Department of International Development was used to establish the KHHIS in 1996. Since that time, Kisiizi Hosptial (KH) has managed the scheme except from 2002-2009 when it was managed by a company called Microcare Insurance Ltd.

The health insurance scheme has a strong organizational structure based upon the engozi, each with a chairperson that functions as the manager and leader of that group. The chairperson population then elects an executive committee from the chairperson pool. The executive committee meets bi-annually with the management staff from the hospital to resolve issues and determine coverage modification. At the end of every calendar year, a meeting with all chairpersons is held called the annual general meeting (AGM). This meeting allows the KH managers, the KHHIS staff, KHHIS executive committee, and all additional chairpersons to meet and discuss policy changes, address complaints, and discuss KHHIS future planning. The AGM functions as the main point for chairpersons to learn new information to pass along to their group members. Most engozis have a monthly group meeting held by the chairperson to function as a means to communicate new information to the member population. In addition, the KHHIS has a specific staff member whose role it is to

assist the chairpersons in resolving issues within their group, sensitizing the group to KHHIS policy and community based health insurance as a whole.

KH has responded to the need of reducing financial burden for patients within their catchment area by establishing the KHHIS; however, the effect of the scheme on patient care utilization is not known. KH does measure disease trends among patients seeking care at the hospital and has noted areas of concern. For example, patients who seek care late in an illness are unintentionally affecting their treatment protocol and length of stay in the hospital. As CHI programs continue to cover gaps for so many that utilize non-government care the evaluation question has arisen: how can KHHIS utilize this large (over 35,000 person) network for the betterment of patients' health knowledge and therefore health outcomes?

Researchers have analyzed the effect of health insurance in rural African settings especially in West Africa (Basaza et al., 2008; Carapinha, Ross-Degnan, Desta, & Wagner, 2011; M. De Allegri et al., 2006; Manuela De Allegri, Sauerborn, Kouyat, & Flessa, 2009; Dekker & Wilms, 2010; Dong, De Allegri, Gnawali, Souares, & Sauerborn, 2009; Gnawali et al., 2009; Jütting, 2004; Taylor, 2008) and the positive outcomes from educating patients (Bodenheimer, Lorig, Holman, & Grumbach, 2002). In spite of this work, few researchers have looked at the potential of providing health education within CHI programs (Hendriks et al., 2011; Nyagero J, 2012; Odusola et al., 2011). One of these teams, Odulsola et al developed a program looking specifically on how to motivate insured patients to become more knowledgeable and vested in their cardiovascular care (Odusola et al., 2011). In this climate, KH and KHHIS sought to determine if their co-developed health education workshop could enable chairpersons in turn to educate their members on selected health topics. From the field it has been demonstrated that there is benefit to draw

education down to the peer level instead of in the clinical setting as it encourages a greater amount of health management by the patient (Rogers et al., 2014). Other known research has demonstrated how patient knowledge can positively affect health care outcomes (Bodenheimer et al., 2002). This study speaks to the initiative of KH to be more responsive to insured members care demands; a clear need proposed by current literature (Mate et al., 2013). As current health systems continue to have limitations in their ability to provide comprehensive care, organizations like KHHIS must create programs which bridge the care-need gap by increasing knowledge among the patient population.

We evaluated the impact of chairperson-led community health education in the Kisiizi Hospital Health Insurance Scheme. The specific aim of the study was to determine whether chairperson training increased health insurance scheme member knowledge.

Methods

Ethical Review

The University of Washington Human Subjects Division granted exemption of ethical review on June 24, 2013 because the study did not meet the federal definition of research.

Study design

We performed a prospective quasi-experimental program evaluation of the KH/KHHIS health education program. The intervention included the training of engozi chairpersons in a one-day workshop and subsequent community health education provided to members of the population by the chairpersons. The study was an evaluation of knowledge acquisition by chairpersons through a pre and post-

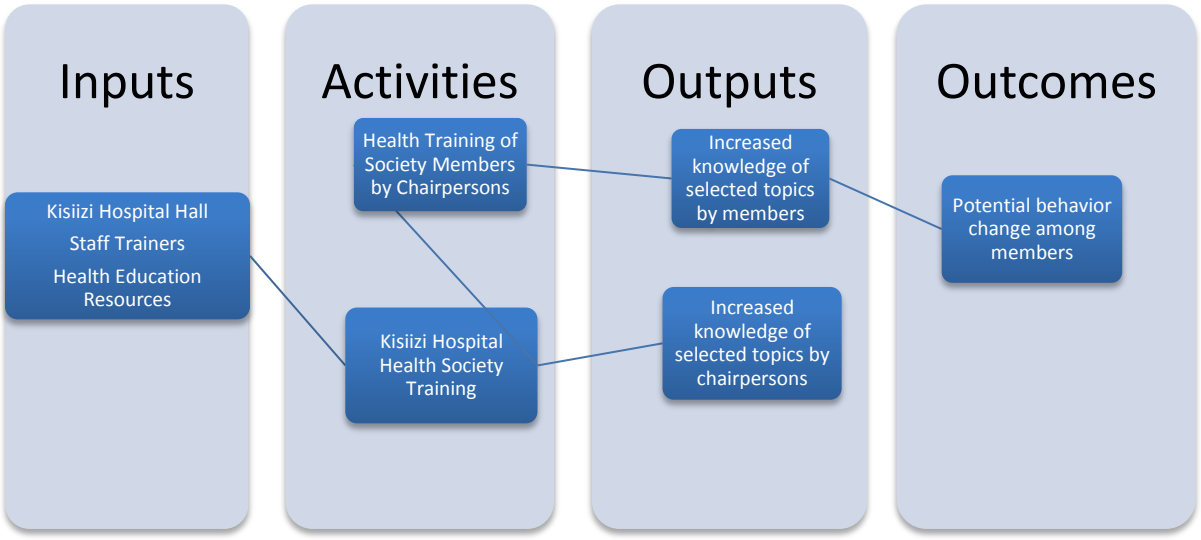
workshop Knowledge Comprehension Survey (KCS). The design for the evaluation of knowledge acquisition by plan population members was a separate pre-post samples design. In this evaluation, the KCS was administered to a training population (consisting of engozis whose chairpersons were asked to conduct trainings) and comparison engozis (whose chairpersons were asked not to train members).

Figure 1: Separate Pre-Post Sample Study Design

Training	N_1	X_1		
Training	N_1		O	X_3
Comparison	N_2	X_2		
Comparison	N_2			X_4

N=Engozi group X= KCS Administration O=Training Intervention

Figure 2: Logic Model of KHHIS Evaluation Study



Setting

The study was conducted at Kisiizi Hospital in Rukungiri District, Uganda between April and September 2013. The chairperson workshop occurred at the hospital, while the member training and assessment occurred in the catchment area surrounding the hospital.

Population and Sample Size

All currently serving chairpersons were invited to attend the workshop. Of the approximately 177 chairpersons within the KHHIS, we performed a purposive sample of those who attended the workshop.

To create an appropriate sample to determine chairperson training effect, the research team selected a sample of 11 engozis with a total of 503 families. We then divided the selected engozis between a training and comparison arm. KHHIS staff contacted these selected engozi chairpersons to reconfirm their willingness to participate in the study. Of the sample engozis, the team placed 5 engozis: Bugarika, Buhumuriro, Karengyere, Kicwamba, and Rubiriizi (232 families) in the training group and 6 engozis: Kabaranga, Kagorogoro, Kanyabugunga, Kisiizi Falls, Mwzinga, and Rubira (271 families) in the comparison group. The sample of engozis was selected to ensure a representative selection of engozi groups based on size of membership population and distance from the hospital. In most other aspects the engozis were deemed to be fairly similar. To calculate the sample size for the number of surveys needed to get meaningful results, we used guidance from the T.V. Sakpal article, "Sample Size Estimation in Clinical Trial"(Sakpal, 2010). The sample size was calculated using the KCS score means from the chairperson workshop to give an estimate of training effect, a 95% Confidence Interval, and 80% power. This calculation produced a sample size of 210. All individuals who participated in the community survey were at least 18 years of age and members of the KHHIS.

Tool Development and Measurements

The investigator and clinicians at KH developed a Knowledge Comprehension Survey (KCS) to measure knowledge change in English with ten questions regarding the 4 topics presented in the workshop (Appendix 1). The questions in the survey were

designed to be broad and of medium to low difficulty to fit the varying literacy of the population. To answer a question a participant would need to check the box next to one of the answer choices: “yes”, “no”, or “I don’t know.” Once the questionnaire was complete, we translated it into the local language Rukiga. The KCS produced a score from 0 to 10 points.

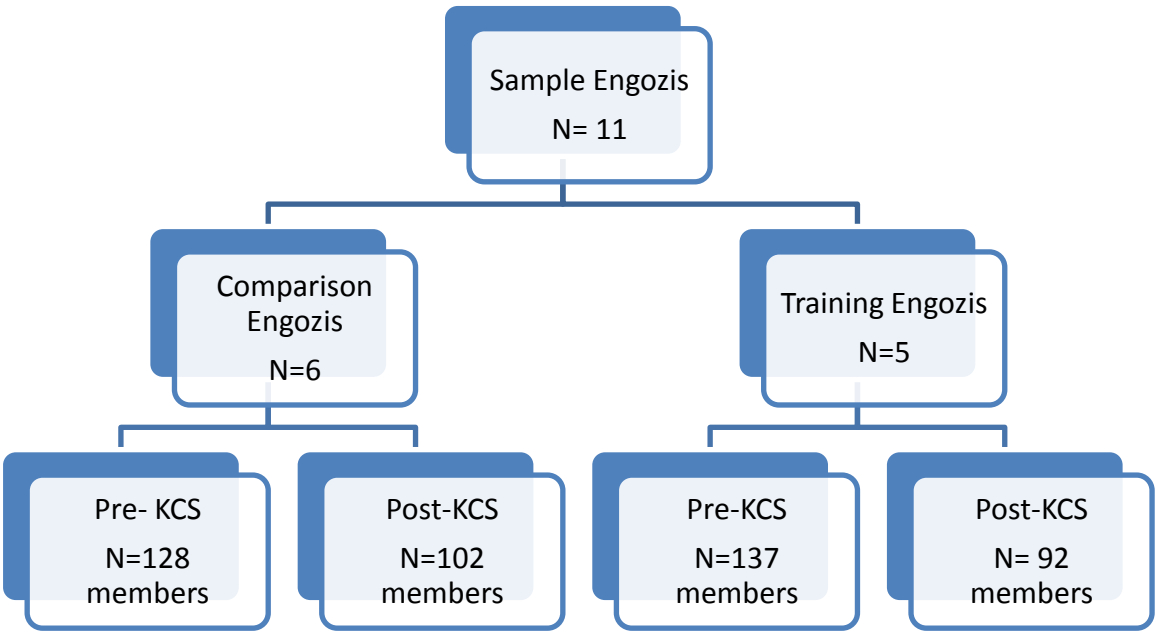
To analyze knowledge change among members, we utilized the same KCS (Appendix 2) as was used in the Chairperson Workshop with additional demographic data collection such as gender, age, head of the household vs. spouse/dependent status, and engozi name. In addition, the survey administrator gave each survey a coded identifier so that individual pre- and post-KCS could be matched.

Intervention

In late April and May 2013, our team, which included the investigator, KHHIS staff, and KH clinical staff, developed training modules with the approval of the KHHIS executive committee. We purposively chose the training topics based on community health needs as observed by the hospital administration and clinical staff working in the KH in- and out-patient departments. At the end of June, our team and KH staff conducted a one-day training of engozi chairpersons in which we provided didactic sessions on family health, family planning, eye health, and, mental health (Appendix 3). Though didactic, we provided ample opportunities for discussion. The trainings were performed in a combination of Rukiga and English, and all English sections were translated into Rukiga. At the opening of the workshop, the primary investigator made a presentation outlining the workshop, the study purpose, the intervention design, and highlighting the voluntary involvement of chairpersons in the evaluation. This was also announced multiple times during the meeting and no chairpersons removed themselves from the study.

Participants completed the KCS prior to health topic sensitization to assess a baseline of health knowledge. The KCS was administered again at the end of the training to measure post-training knowledge. This was performed to determine feasibility of KCS completion in the field setting. All chairpersons who attended the workshop were given an informational resource to reinforce information conveyed during the workshop (Appendix 4). Chairpersons were advised not to share information with members of their engozis until KHHIS contacted them regarding the training and surveying of members.

Figure 3: Process Diagram for Member Training and Evaluation



Of the sample engozis, we instructed the chairpersons of the 5 engozis placed in the training group to train their members after a pre-training KCS performed by the KHHIS and PI. Of the sample engozis, we instructed the chairpersons of the 6 engozis placed in the comparison group not to sensitize their members regarding the

workshop materials. We traveled to 11 engozis and conducted pre-testing of the KCS. At each fieldwork day we described the research project emphasizing the right not to participate. The primary investigator, KHHIS staff, and in some cases the chairperson or secretary of the engozi group administered the KCS. After a 4-8 week period, we returned to the selected engozis to conduct a post-training KCS.

Data Management

The primary investigator tabulated the data from each KCS to determine raw scores and knowledge change among the chairpersons, the treatment, and comparison group.

Data Analysis

We calculated the average difference in pre- and post-KCS scores on each engozi then executed a two-sample t-test on the engozi averages to determine knowledge change between the treatment and comparison groups.

Results

Table 1: Demographics for Training and Comparison Groups, Pre and Post-Test

	Training		Comparison	
	Pre	**Post**	**Pre**	**Post**
Male	59	46	64	47
Female	72	44	60	55
HOF	88	49	86	71
Mean Age	40.55	41.10	48.73	50.31

HOF—Head of Family

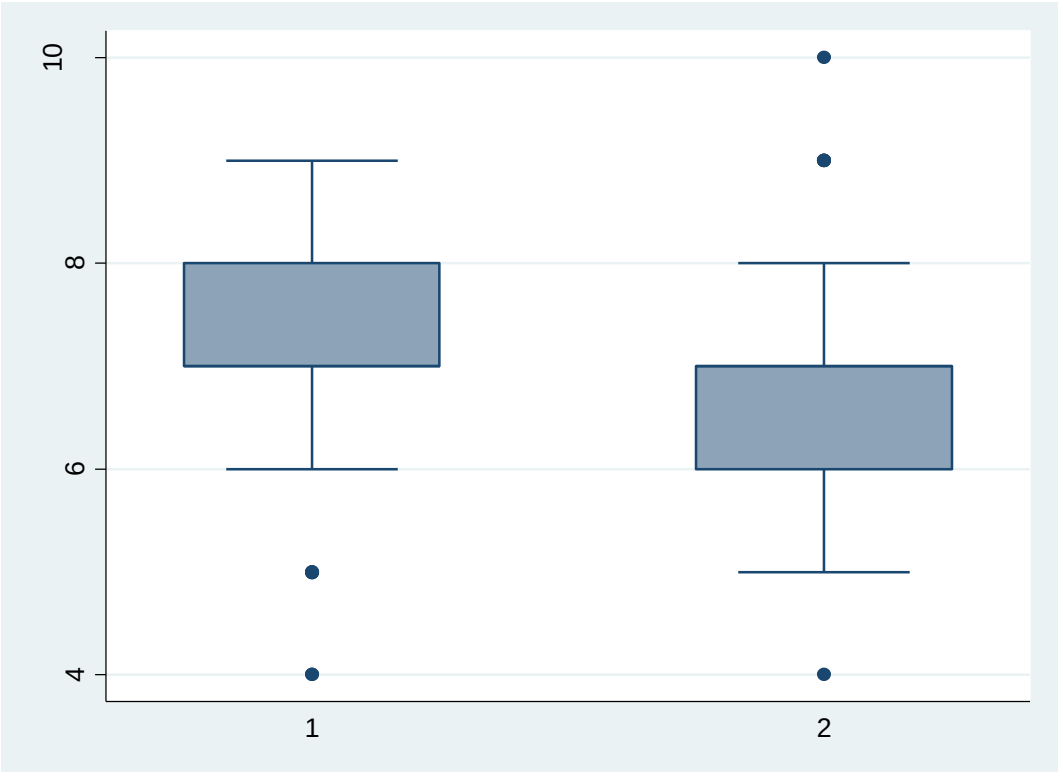
5 villages were selected for participation the training group of the study. 137 members from these engozis completed the pre-test and 92 completed the post test. Member participation from engozis ranged from (15-44) members in the pre-test and

(7-38) members in the post test. All villages increased in score with the exception of Karengyere. The highest increase was among Kicwamba who had an average score increase of 0.69, Karengyere had the least with a decrease in average score by 0.022. Among the training group, we observed a significant decrease in the female and head of families participating. The number of males and average age for participants remained fairly stable.

Table 2: Pre and Post-KCS Scores and Means for Training Group Engozis

Village	Mean (Post)	Mean (Pre)	Mean Difference	p-Value
Bugarika	7.47	7.00	0.47	<0.00
Buhumuriro	7.18	7.00	0.18	0.29
Karengyere	6.37	6.39	-0.02	0.52
Kicwamba	7.74	7.05	0.69	<0.00
Rubiriizi	7.14	6.63	0.51	0.13
Average	7.29	6.83	0.37	

Figure 4: Box Plot Pre- and Post-KCS Scores Training Group



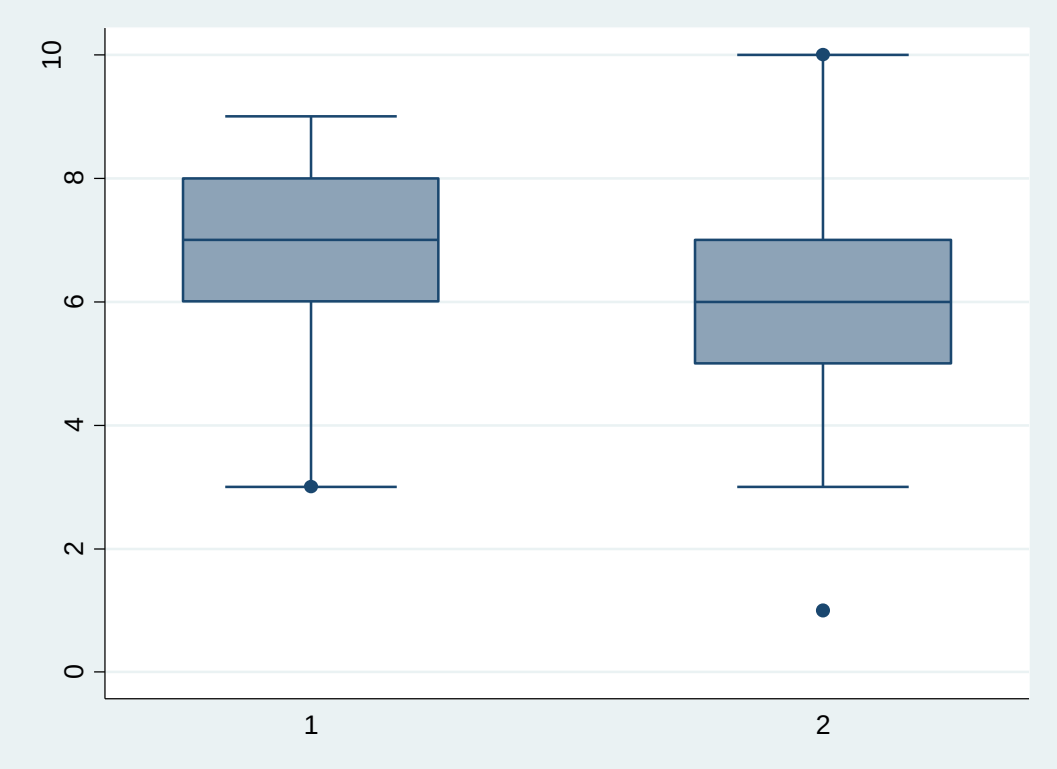
1= Post-KCS 2= Pre-KCS

6 villages were selected in participation in the comparison group of the study. 128 members completed the pre-KCS and 102 completed the post-KCS. Member participation from engozis ranged from (3-49) members in the pre-KCS and (0-39) members in the post-KCS. All villages demonstrated an increase in knowledge score with the exception of Kisiizi Falls. The highest increase was among Kagorogoro who had an mean score increase of 1.22 points, Kisiizi Falls had the least with a decrease in mean score by 0.20. In a parallel similarity to the training group, most comparison group treatment effects were not statistically significant. Among the members in the comparison group the distribution of males vs. females participating is fairly even, but the majority of participants were heads of family. In the comparison group, we found the average age increased slightly between the pre and post-KCS.

Table 3: Pre and Post-KCS Scores and Means for Comparison Engozis

Village	Mean (Post)	Mean (Pre)	Mean Difference	p-Value
Kabaranga	7.03	6.88	0.14	0.31
Kagorogoro	6.67	5.44	1.22	0.01
Kanyabugunga	6.67	6.13	0.54	0.18
Kisiizi Falls	7.43	7.63	-0.20	0.72
Mwzinga	7.03	6.10	0.93	<0.00
Rubira	N/A	5.33	N/A	N/A
Average	6.97	6.29	0.53	

Figure 5: Box Plot of Pre and Post- KCS Scores, Comparison Group



1= Post-KCS 2=Pre-KCS

A t-test was done to compare the mean change in KCS scores between the villages in the training versus the comparison group. The average KCS difference within the training groups was 0.37 while in the comparison group it was 0.53. The p-value of difference in mean changes in scores between the training and comparison groups was 0.71, which was not statistically significant.

Discussion

The results of our evaluation suggest that utilizing trained chairpersons as a means to convey information to health plan members is not an effective method to provide health education in the KHHIS. There was no evidence that chairpersons were effective in training members. Knowledge improvement was observed within

individual engozis, but there was overall no significant improvement seen within the training group compared to the comparison group.

There was a greater increase in knowledge score within the comparison group versus the training group. The difference between knowledge score changes in the comparison villages was 0.53 points, while only 0.37 in the training group. The knowledge gain observed in the comparison group is surprising as these members were not sensitized. This raises the question of how knowledge is transferred within the community. These results contradict what would be seen as common knowledge, but do actually support some research which indicates that a lack of knowledge in the peer educator creates a more collaborative learning environment (Rogers et al., 2014). This could be interpreted that a chairperson without health information support could actually motivate change in individual information seeking. It may be that those in the comparison groups knowing that they did not have a source of information available to them were more likely to seek out information regarding the surveyed health topics. More research would need to be performed to determine the predominate route of gathering health knowledge.

Our study had a number of weaknesses. We discovered that some of the engozis in the training group were partially educated on the selected health topics prior to administration of the pre-KCS (Kicwamba, Bugarika, Buhumiro). This was due to a miscommunication by a KHHIS staff member to chairpersons. The level of sensitization varied between these groups as Kicwamba did receive a sensitization on 3 out of the 4 health topics, Bugarika was given a summary of the workshop, but Buhumiro was fully sensitized on all the health topics. In each of the situations the engozi chairperson or officer was requested to train fully before the administration of the post-KCS. This miscommunication impacted the data by reducing the knowledge

gained as the baseline KCS scores would ultimately be higher than an unsensitized engozi.

Engozi chairpersons, secretaries, and even treasurers administered some KCSs. The inclusion of these officers led to potential bias in KCS scores. KHHIS staff would give a brief sensitization to engozi officers of what was expected in the administration of the survey and the PI would observe to assist when needed. During fieldwork we observed two instances of an engozi officer modifying scoring i.e. correcting members in the administration of survey and not being able to clarify the meaning of questions to members. These instances were quickly corrected; however, this means that the effect of survey administrator on the overall scoring results is unknown as there would be skewing in scores.

Chairpersons may have had difficulty sensitizing members as their only supportive document was a fact sheet which provided only about 5 points/facts for each of the health topic areas. Most chairpersons' backgrounds aren't in education, so the benefit of this resource was uncertain. This document was written in Rukiga, but would have been difficult for illiterate or semi-literate chairpersons to utilize. An additional issue may have been limited training received during the workshop. A session had been set within the chairpersons' workshop entitled, "How to Teach" to assist chairpersons in conveying health messages. This session did not occur due to the absence of the selected trainer. This missing session may have negatively affected the improvement of scores within the training group.

From the results section we show that there was a significant drop in participating members between the pre- and post-KCS populations. We were unable to complete enough KCS to reach the proposed sample size. This reduction further confounds the

applicability of the results as the survey population is too small to produce statistically significant results.

Lastly, there was an issue in the phrasing of the survey questions. We developed the KCS questions in English and then had them translated over into Rukiga by a professional translator. The structures of two KCS questions appear to have created some confusing wording in Rukiga which may have affected results. As referred to before, the success of members in completing these questions correctly could be due to the quality in survey administrator and their ability to understand the negative phrasing of certain survey questions.

Recommendations

Some members within the KHHIS are illiterate or semi-literate. Chairpersons receiving additional health resources especially visual aids could increase the success of member knowledge acquisition. Resources focusing more on illness transmission and patient management would be useful in future implementation.

General health education programs have been successful in the past, but with this population topic targeting may be a better option (Bodenheimer et al., 2002). A more targeted education program could increase member knowledge regarding specific illnesses and disease self-management. This knowledge in areas of high cost could lead to cost reduction due to behavior change.

A "How to Teach" module should be included in the next chairpersons' workshop due to the variation in chairperson background and education. A training that focuses on health communication and promotion could improve knowledge acquisition among members as a chairperson's skill in educating would increase.

Not all chairpersons were properly notified of the workshop since the advertisement for the workshop only occurred through only one of the regional radio stations. For future trainings, the recruitment should be advertised through 3 of regional radio stations to increase chairperson attendance and create a greater pool of sensitized chairpersons. Chairpersons would be better able to rely on one another for information and support in a larger trained chairperson pool.

Conclusions

The results of the study indicated that the proposed program was not effective in educating KHHIS members. As there are still gaps in knowledge regarding providing health education in health insurance groups, more research is needed. The KHHIS health education program should not be fully implemented without significant modification.

Appendices:

Appendix 1: Chairperson Survey

Engozi Code: _____

SURVEY ON HEALTH KNOWLEDGE

1. When people use herbs to heal eye problems, then they may be prone to getting a foreign body in the eye.
   _____ True _____False _____ Do Not Know

2. Is it okay to share your eye drugs with other people?
   ____ Yes _____No _____ Do Not Know

3. Mental illness is not caused by social factors, for example a broken marriage or discrimination.
   ____True _____ False _____ Do Not Know

4. When a person is diagnosed with mental illness, they may need to stay on treatment for the rest of their life.

   ____True ____False _____ Do Not Know

5. Do you need to wash your hands before eating/preparing food even if your hands are not looking dirty?
   ____Yes ____No _____ Only before eating
   _____ Only before preparing food _____ Do Not Know

6. Children who have "millet extraction" or "false teeth removal" performed on them are at risk of developing an infection.
   ____Yes _____No _____Do Not Know

7. Family planning/spacing does not improve the survival rate or health outcomes for children.
   ____True _____False _____ Do Not Know

8. If family planning is practiced widely, can it affect the reaching of countrywide health goals?
   _____Yes _____No _____ Do Not Know

9. An untreated mosquito net gives as much protection as an insecticide treated mosquito net.
   ____True _____False _____ Do Not Know

10. By reducing standing water around your home, you can reduce the number of mosquitos near your home.
    ____True ____False _____ Do Not Know

Appendix 2: Member Survey

Participant ID: _____ Engozi Name:_____
Gender:_____ Age:_____ HoH/Dependent:_____

SURVEY ON HEALTH KNOWLEDGE

1. When people use herbs to heal eye problems, then they may be prone to getting a foreign body in the eye.
   _____ True _____False _____ Do Not Know

2. Is it okay to share your eye drugs with other people?
   ____ Yes _____No _____ Do Not Know

3. Mental illness is not caused by social factors, for example a broken marriage or discrimination.
   ____True _____ False _____ Do Not Know

4. When a person is diagnosed with mental illness, they may need to stay on treatment for the rest of their life.

   ____True ____False _____ Do Not Know

5. Do you need to wash your hands before eating/preparing food even if your hands are not looking dirty?
   ____Yes _____No _____ Only before eating
   _____ Only before preparing food _____ Do Not Know

6. Children who have "millet extraction" or "false teeth removal" performed on them are at risk of developing an infection.
   ____Yes _____No _____Do Not Know

7. Family planning/spacing does not improve the survival rate or health outcomes for children.
   ____True _____False _____ Do Not Know

8. If family planning is practiced widely, can it affect the reaching of countrywide health goals?
   _____Yes _____No _____ Do Not Know

9. An untreated mosquito net gives as much protection as an insecticide treated mosquito net.
   ____True _____False _____ Do Not Know

10. By reducing standing water around your home, you can reduce the number of mosquitos near your home.
    ____True _____False _____ Do Not Know

Appendix 3: Chairperson Workshop Schedule

Time: ~4hours

10-10:15am: Introduction/Welcome

10:15-11am: Health Insurance Policy Update

11-11:15am: Pre- Training Comprehension Survey

11:15-11:45am: Eye Health

11:45am-12:15pm: Mental Health

12:15-12:45pm: Family Planning

12:45-1:15pm: Family Health (Hygiene and Sanitation, Malaria, Pneumonia, Traditional Healers)

1:15-1:45pm: How to Teach

1:45-2:15pm: Training Evaluation and Comprehension Survey

2:15pm->: Meal

Appendix 4: Chairperson Factsheet

Facts to Remember from the Health Society Workshop

Eye Health

1. Pregnant mothers should visit a health centre before delivery to check for STDs. This can prevent bacterial conjunctivitis in babies.
2. Do not use eye drugs that have not been prescribed for you.
3. Do not use herbs in the eye as they may further damage your eye.
4. Encourage your family to eat foods rich in Vitamin A to ensure eye health.
5. Seek treatment at a health centre or hospital early when seeing signs of redness, discharge or swelling.

Mental Health

1. Mental illness can be caused by biological factors like infection, brain trauma, drug use etc.
2. Mental illness can be caused by psychological factors like a difficult upbringing.
3. Mental illness can be caused by social & environmental factors like isolation, poverty, and loss of a family member.
4. Mental illness can be exhibited as hallucinations, delusions, or even erratic body movement.
5. When seeing a person who is showing signs of mental illness, the person should be seen by a trained clinician for adequate treatment at Kisiizi Hospital or a regional referral hospital.

Family Planning

1. Family planning does not mean not having children, it means planning and spacing births to ensure optimal health and care for each child.
2. Family planning can reduce risk for maternal and child death.
3. Family planning enables greater focus on the child enabling improved development (child will be stronger physically and mentally).
4. Maternal health improves by allowing the mother to gain strength and recover between births.
5. Family planning services available at hospitals, most health centres, and trained community reproductive educators.

Family Health

1. Seek medical care within 24 hours if you think you have malaria.
2. To reduce mosquitos around the home drain any holes/pits holding water, cover any water containers, and slash the grass.
3. Traditional practices of millet extraction and false teeth removal create new routes for germs to enter the body, which will worsen the illness of the child.
4. To avoid diarrheal diseases, be sure to treat your water and avoid consuming food/drink from places that are unclean.
5. Newborn babies require immediate medical attention when they fall sick.

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