Digital health information in Iringa, Tanzania: 
Development, provision and testing the effect of digital cysticercosis/taeniosis messages on rural communities

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The DigI-project and the team

- “Non-discriminating access for digital inclusion” (DigI)-project, funded by Norwegian Research Council and NORAD (1.5 mill USD)
- Jan 2017 – Sept 2020
- 11 partners from Tanzania, US, India, DR Congo, Rwanda, Serbia, Germany, France, Spain and Norway
Snapshots from website and TSCT animation developed by the DigI-team
Ongoing non-randomised controlled study to test the effect of the digital health messages

- Two intervention villages with 298 participants in total
- Two control villages with 300 participants in total
- Baseline (in both villages) and exposure to digital health messages and immediately after assessment (only in intervention villages) – April / May 2019
- First follow-up in August / September 2019
- Next follow-up in February 2020
Preliminary findings from the intervention villages

• Increase in all TSTC knowledge domains
  • (Prevalence)
  • Transmission
  • Symptoms
  • Treatment
  • Prevention
**Correct answers Transmission**

QC5: A human being can be infected with cysticercosis
- Post exposure: 54
- Pre exposure: 260

QC6a: A person can acquire cysticercosis by eating raw or undercooked pork from infected pig
- Post exposure: 39
- Pre exposure: 265

QC6b: A person can acquire cysticercosis by eating food or drinking water contaminated with human faeces
- Post exposure: 5
- Pre exposure: 132

QC6c: A person can acquire cysticercosis by having insufficient personal hygiene, i.e. washing hands
- Post exposure: 4
- Pre exposure: 101

QC7: Pork tapeworm infection is acquired by consuming raw or undercooked pork
- Post exposure: 36
- Pre exposure: 263

QC8: To prevent pigs from cysticercosis, by preventing access to human faeces
- Post exposure: 18
- Pre exposure: 202

*Preliminary results*
QC9a: Expulsion of tapeworm segment(s) in faeces is a symptom of...
QC9b: Stomache ache, urge to vomit, weight loss, going to the toilet...
QC10a: Cysticercosis can be located in the human muscles
QC10b: Cysticercosis can be located under the skin in humans
QC10c: Cysticercosis can be located in the human brain
QC10d: Cysticercosis can be located in the human eyes
QC11a: Symptoms of cysticercosis in the brain is epilepsy
QC11b: Symptoms of cysticercosis in the brain can be severe...
CQC12: Symptoms of epilepsy is loss of consciousness and shaking...

Correct answers Symptoms*

Pre exposure Post exposure

*Preliminary results
QC13: A person with tapeworm infection and/or cysticercosis should be treated using modern medicine (go to hospital)

*Preliminary results
QC14: Best way of keeping pigs is to house the pigs all the time
QC15a: Only eat inspected meat to avoid tapeworm infection
QC15b: Avoid eating raw or undercooked meat to avoid tapeworm infection
QC15c: Wash hands frequently, after toilet, and before preparing and eating food to avoid tapeworm infection
QC16: If encountering cysticercosis infected meat, burn the meat completely
QC17: Prevent pigs from eating human faeces by latrine use and by housing the pigs

*Preliminary results
Preliminary results have not yet been adjusted for confounders (age, gender, education etc.)
Analysis of the results

- McNemar test
- Scores adjusted for confounders
  - Education
  - Age
  - Gender
Summary: Main impressions form fieldwork and analysis

• Participants in the intervention village appreciate the digital health messages
  • In the first follow-up, only 1 out of 280 reported that they did not like the digital health messages, and 270 out of 280 reported that they learned something from them

• The importance of culturally sensitive content
• Unbiased health messages of high quality
• In local language
• Significant results related to knowledge uptake
Next phases

• Village platform rollout in November

• Follow-ups in February and May

• Semi-structured interviews
  • Planned with participants in each of the intervention villages (users and non-users of the village platform)
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