THANK YOU FOR LISTENING!

A PILOT STUDY EVALUATING THE ACCEPTABILITY AND EFFECTIVENESS OF PODCASTS AS A TOOL FOR DELIVERING HEALTH EDUCATION IN RURAL MALI.

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1 INTRODUCTION

Health education is vital for empowering individuals to make well-informed choices regarding their health. With increasing access to internet and communication technologies, the use of audio podcasts as a tool for delivering health education has risen in recent years. Podcasts are portable, affordable, and accessible, implying utility even in remote and resource-constrained settings. The application of health education podcasts in such settings therefore merits increased attention in scientific literature.

AIMS

This pilot study aims to evaluate:

1. The **acceptability** of a podcast as a health education tool
2. The **effectiveness** of a health education podcast in improving knowledge of prevention and first aid for snakebites, a neglected tropical disease

- amongst a population of Malian employees of a mining site in rural Mali, a low-income country in West Africa.



INCLUSION CRITERIA

- Malian National
- Owns a smart phone
- Not acutely unwell (clinician judgement)

2 METHODOLOGY

The study was conducted between April and November 2023.

1. 11-day recruitment period at the site medical clinic of the Yan-folila Gold Mine, Mali.
2. Baseline survey assessing participant demographics, digital media access, and podcast usage, followed by an exam assessing knowledge of snakebite prevention/first aid.
3. 4-minute health education podcast on snakebite prevention/first aid sent to participants in French & Bambara via WhatsApp.
4. Follow-up at 1, 3, & 6 months where participants repeated the exam, along with a survey regarding history of podcast use and any additional snakebite training received. Reminder message sent prior to each follow-up via WhatsApp.
5. Two focus groups held after completion of the 6-month follow-up discussing participants' study experience, the snakebite health education podcast, and general accessibility of health information.

3 RESULTS

Study Participation



12 Completed all stages of follow-up

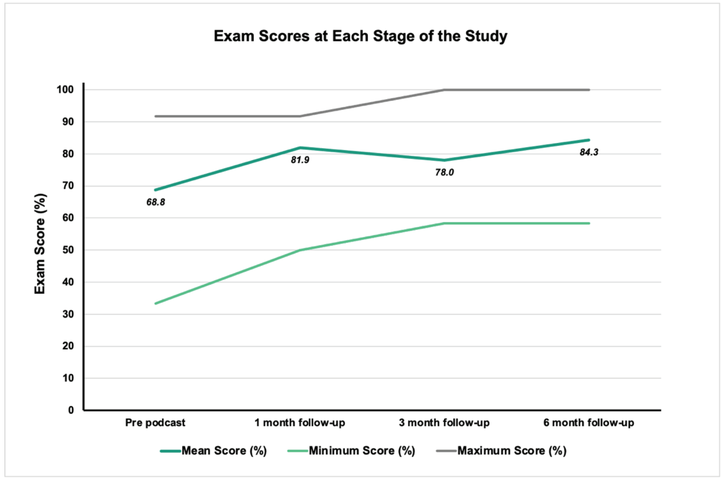
18 Attended 6 month follow-up

39 Agreed to participate

44 Met inclusion criteria

67 Outpatient attendances

Access to internet, digital media, and podcasts:
22 (56%) of participants reported accessing internet on their smartphone using data only. The majority (36%) reported 1-3 hours of smartphone internet use per day. 21 (54%) reported listening to podcasts, 36 (92%) expressed interest in receiving a health education podcast, and 28 (72%) would consider paying for one. All participants were happy to receive podcasts via WhatsApp.



Exams scores:
At 6-months, the mean exam score of participants had improved by 22.4% relative to baseline (pre-podcast) mean score. A mean improvement on baseline score was found at each follow-up interval. 14 (77.8%) participants who completed the 6-month follow-up had an improvement on their baseline score. Moreover, 9 out of the 12 exam questions had a greater number of correct responses at 6 months.

4 QUALITATIVE FEEDBACK

All participants (n=23) at 1 month follow-up reported finding the podcast helpful and would recommend it to a relative or friend. 22 (96%) expressed a desire to listen to additional health education podcasts. A total of 11 participants took part in the two focus groups and feedback on the podcast was largely positive:

- *"Someone in the community got bitten and [I] used that knowledge from the podcast to know what to do"*
- *"It would be great if all community members have access to this not only mine workers"*
- *Suggestion to "[send] pictures/ posters that go with the podcast"*

5 DISCUSSION

This pilot study demonstrates that a health education podcast on snakebites is both an acceptable and effective tool for delivering health education to a population in rural Mali. Following podcast distribution, a sustained improvement in participant knowledge of snakebite prevention and first aid was realised. Limitations of this pilot study must be recognised, including the small-sample size, the sample generalisability, and the potential for recall and incentive-caused bias with the exam scores.

RECOMMENDATIONS

- *Consider podcasts as a tool for delivering health education to patient populations in remote or resource-constrained settings.*
- *Involve larger, more representative samples in future studies evaluating podcasts as a health education tool.*
- *Explore alternative modes of distributing health education podcasts, including via healthcare facilities, community centres, or radio stations.*

6 CONCLUSION

Overall, this study contributes to the literature on health education delivery in remote and resource-constrained settings. Healthcare professionals and service providers in such settings should consider utilising health education podcasts to inform and empower their patient populations.

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