

# Development and Assessment of an Oral Exercise Media for Deaf / Hard-of-hearing Patients

## BACKGROUND & OBJECTIVE

Health equity for all is critically important according to WHO. However, health literacy of the deaf and hard-of-hearing patients is affected by their disabilities.

This study aims to modify and develop an oral health educational media for Thai deaf and hard-of-hearing patients. And then, we will evaluate the understandability and actionability of the media.

Keywords: Oral health education material | Health literacy | Deaf and hard-of-hearing patients

## METHODS

### Phase I Material Assessment

Develop and modify the existing oral exercise media

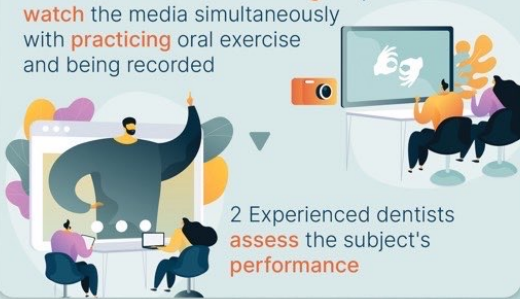
+ Caption + Sign language

The 7 invited experts evaluate the content's quality using the PEMAT-AV



### Phase II Usability Assessment

The deaf and hard-of-hearing subjects watch the media simultaneously with practicing oral exercise and being recorded



2 Experienced dentists assess the subject's performance

## DATA ANALYSIS

Descriptive statistics | Interrater reliability | Student's T-test

## RESULTS

### Phase I Material Assessment | PEMAT-AV



PEMAT-AV survey supports the media's utility for the deaf / hard-of-hearing patient education.

Understandability **98.8%**

Actionability **100%**

Overall **99.4%**

Percentage agreement 93.75%

### Phase II Usability Assessment

The educated group has higher scores than the uneducated group. ( $p < 0.001$ )

Overall mean score **73.42**  
n = 19

Educated **94.2%**  
(n = 7)

Uneducated **61.25%**  
(n = 12)

## CONCLUSION

Our animation oral exercise can provide practical and intelligible for patients to improve their oral function.

The data from the usability assessment shows even people who are deaf or hard of hearing and not educated can successfully follow the animation and this animation can contribute to the concept of an inclusive society.



Dr. Sariya N.  
(Advisor)



Dr. Ittiset D.  
(Co-advisor)



Chitiphat C.



Piriyaoporn S.



Purichaya W.



Sunpetch C.



Taan T.



Tinna A.