How to make it easier for older people to use a health website? Findings from a usability study in Malaysia

CJ Ng[1], YK Lee[1], PY Lee[2], CH Teo[1], Ahmad Ihsan AB[1], Khatijah LA[1], EM Khoo[1], NS Hanafi [1], WY Low[1], TK Chiew[1]

(1)University of Malaya, Kuala Lumpur, Malaysia (2) Universiti Putra Malaysia, Serdang, Malaysia

Background

Older people are perceived to be averse to using websites to search for information, including health matters [1,2].

Aims

This study assessed the usability of a newly developed English-language diabetes website which aimed to support older patients with type 2 diabetes to make an informed decision about insulin initiation.

Methods

We recruited patients with type 2 diabetes who were at the point of making a decision about starting insulin, from the University of Malaya Medical Centre, Malaysia, in 2014. Patients had to know how to use a computer to participate. The patients answered a baseline questionnaire before using the website. We used a screen recording software and a webcam to record the computer screen movements and the users' facial expressions simultaneously throughout the website session. Then, the researchers used a topic guide to interview the users on their views and experiences of using the website while watching the recording playback. Lastly, the interview recordings were analysed qualitatively using the framework approach to identify usability issues.

Results

13 patients participated; age (median 65 years old (y.o)), gender (10 men, 3 women) and education level (9 secondary/diploma, 4 graduate/postgraduate degree). Four usability issues were identified (navigation, layout, language, equipment).

Navigation

Words over symbols
- The users preferred words to symbols to help them navigate through the website (e.g. use the word 'next' instead of an arrow symbol).
- The users wanted simple instructions which explained step-by-step what they were expected to do (e.g. 'click here').
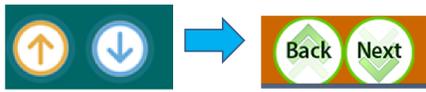
"I didn't know I had to click the arrow, that's why I kept on clicking here and it kept on repeating again and again. So somewhere you got to advise 'Click the arrow'" (Pt B, 73 y.o)

Layout

Display everything
- They found it difficult to use special functions such as 'drop-down' menu and hide-show function.
- They preferred all information to be displayed on the screen.
- In terms of colour, the older patients preferred brighter background with sharp contrast.
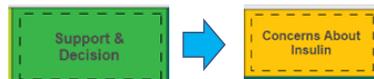
"Oh I didn't know that the answer (on insulin concerns) will pop up" (Pt B, 73 y.o)

"The contrast is not there. The dark green and the black doesn't come out." (Pt G, 56 y.o)

Language

Keep It Simple
Language and font preferences were:
- bigger font size
- more illustrations/ pictures and fewer words
- information to be presented in simple language.

Equipment

Computer preference
- Some users struggled with using a notebook/ laptop and preferred a desktop computer which they were more familiar with

" I think the font is quite small. Because I am already old." (Pt A, 49 y.o.)

"More of visual, less text" (Pt G, 56 y.o.)

Three cycles of revision and testing were conducted. The usability of the website improved with each cycle.

Conclusions

This study highlighted the importance of assessing the usability of a health website for older people. Navigation and layout of the website are key considerations when designing a website for older people in order for it to be senior-friendly.

References: 1. Mead SE, Batasakes P, Fisk AD, Mykityshyn A (1999) Application of cognitive theory to training and design solutions for age-related computer use. Int J Behav Dev 23:553–573. 2. Nayak et al. (2006) Website design attributes for retrieving health information by older adults: an application of architectural criteria. Universal Access in the Information Society 5 (2), 170-179.