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ARVO Annual Meeting Abstract | June 2022

Qualitative investigation of information behaviour in individuals with visual impairment to inform virtual digital-assistant design

Author Affiliations & Notes

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Abstract

Purpose : People living with visual impairment (VI) can find it difficult to access the right information to help support them with their rehabilitation needs. We used a questionnaire and interviews to investigate the information seeking behaviour of individuals with VI and how they would view the use of a virtual digital assistant to obtain information.

Methods : Qualitative data were collected from UK resident adults who were either visually impaired, a carer or family member of someone with VI, or a professional involved in the support of those with VI. A survey was developed and completed online by 120 participants. In addition, 10 in-depth 1:1 semi-structured interviews were conducted to investigate opinions in more detail. Thematic analysis was used to analyse the findings.

Results : Analysis of information needs identified 7 major themes as important: (1) ocular condition (2) equipment, technology and adaptations (3) daily activities (4) registration (5) finance/employment (6) emotional support (7) support for the carer. Participants used a wide variety of methods to access information across a broad range of sources, and highlighted experience of numerous barriers while accessing information. Participants appeared to be accepting of the potential merits of a dialogue system (virtual digital assistant) aiding in a goal-directed search for a specific piece of information, but often expressed reservations about its abilities in other areas such as dealing with more complex issues and providing emotional support. They described potential advantages including: ease of use (accessible format), control over the timing, quantity and type of information provided, help with navigating and integrating the large array of information sources available, and providing a foundation of basic information to help support those who don’t know what to ask about. Participants also reported that information provided needs to be relevant, targeted, understandable, accurate and trusted.

Conclusions : Participants highlighted potential benefits, limitations and requirements in using a digital virtual assistant. These findings will inform the design of a virtual assistant aimed at improving access to information and support for populations with VI.

This abstract was presented at the 2022 ARVO Annual Meeting, held in Denver, CO, May 1-4, 2022, and virtually.

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