ONCOLLAB: A MOBILE APPLICATION FOR THE MANAGEMENT OF ORAL COMPLICATIONS FROM CANCER THERAPY

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Introduction

Cancer therapy can often lead to oral complications that are prevalent among patients, causing a significant impact on their quality of life, and potentially leading to treatment interruptions (1-2). To address this issue, we have developed a new mobile app called ONCOllab, which is designed to provide cancer care professionals with valuable information on managing oral complications associated with cancer therapy. The pilot study aimed to evaluate the usefulness and acceptability of ONCOllab among various members of the cancer care team.

Material and methods

The initial version of ONCOllab, (Figure 1), contained several key features aimed at providing users with comprehensive information on the management of oral complications of cancer therapy. These features included a risk calculator, prevention and management guidance, and clinical tips for Medication-related Osteonecrosis of the Jaw (MRONJ), a common complication in cancer patients undergoing therapy. In order to assess the effectiveness and usability of the app, participants were asked to perform a variety of tasks using the ONCOllab app. These tasks may have included navigating through the app, using the risk calculator, accessing the prevention and management guidance, and utilizing the clinical tips for MRONJ. After completing the tasks, participants were asked to complete a modified version of the mHealth App Usability Questionnaire, which is a validated tool used to assess user satisfaction and experience with mobile health apps (3). The collected data was analyzed using descriptive statistics, to summarize the feedback provided by participants.

Results

The study involved 21 healthcare providers from six different countries (females: 57%). The participants were from various healthcare professions, with dentists being the largest group (50%), followed by nurses and medical doctors (both 22%), and others (6%). The survey found that the ONCOllab app was very user-friendly, with 71% of participants responding that it was very easy to use. Additionally, the majority of respondents (81%) liked the app's interface and found it easy to find the information they needed (81%). The MRONJ risk calculator was also found to be easy to follow by 76% of respondents. The prevention and management sections for MRONJ were reported to be well-organized by 81% and 77% of providers, respectively. Finally, the referral forms to dentists and oncologists in the community for patients with MRONJ or awaiting bone modifying agents were found to be a useful resource by 57% of the participants.

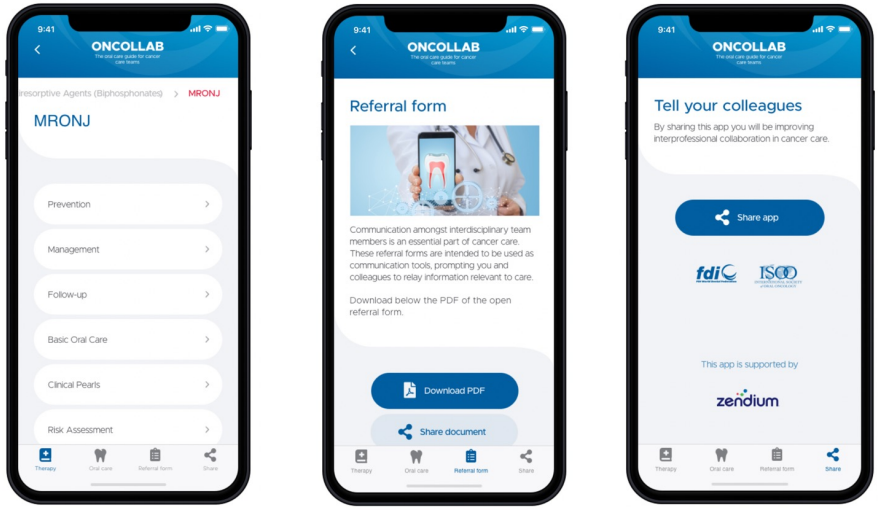

Figure 1: The Oncollab app

Conclusions

We developed an online educational tool (ONCOllab app) for the prevention and management of oral complications from cancer therapy which was easy to use and informative. Further development of the ONCollab app to include additional cancer treatment related oral complications is ongoing.

References

1. Elad et al. The broadening scope of oral mucositis and oral ulcerative mucosal toxicities of anticancer therapies CA Cancer J Clin. 2022 Jan;72(1):57-77; 2. Zhou et al. The mHealth App Usability Questionnaire (MAUQ): Development and Validation Study JMIR Mhealth Uhealth 2019 Apr 11;7(4):e11500; 3. Sroussi et al. Common oral complications of head and neck cancer radiation therapy: mucositis, infections, saliva change, fibrosis, sensory dysfunctions, dental caries, periodontal disease, and osteoradionecrosis Cancer Med. 2017 Dec;6(12):2918-2931.