Applications Based on Mobile Phone: an Effective Approach in Self-Management of Patients with Oral Cancer

Zahra Mahmoudvand[1], Azadeh Yazdanian[1], Maede Zare[2*]

[1] Assistant Professor, School of Allied Medical Sciences, Mazandaran University of Medical Sciences, Sari, Mazandaran, Iran.

[2] MSc student, School of Allied Medical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Oral neoplasm is among the most common cancers globally, especially in low- and middle-income countries (1). Oral cancer ranks 6th in incidence among cancers worldwide (2).

According to the World Health Organization (WHO), there are an estimated 657,000 new cases of oral cancer diagnosed each year and more than 330,000 deaths annually as a result of this disease (2).

Patients who have undergone oral cancer treatment require a range of nursing care, including professional medical attention as well as interpersonal and psychological support. This may include information related to the disease, treatment options, medication options such as pain management, and emotional support for communication and psychological needs (3-5). Finding relevant health information for patients through clinical books and guidelines can be difficult and may include specialized and incomprehensible terminology. As a result, patients often desire to access specific information quickly and conveniently, regardless of their location (6). When adequate support is provided to patients to meet their needs, they can more effectively deal with their negative emotions and symptoms of the disease (2).

By providing access to information related to the prevention and treatment of side effects at an early stage, it is possible to decrease the frequency and duration of hospitalizations, enhance patients' quality of life, and reduce the costs associated with their treatment (7). The decline in patients' quality of life following oral cancer treatment increases the demand for nursing care and health information, mainly as a result of the side effects and resulting psychological problems after treatment (2).

While the use of traditional strategies of health education, home health care, and day hospitals may be sufficient in certain cases, some patients require more involvement in their treatment. Current management models prioritize patient empowerment, encouraging self-management of the disease with the guidance of a healthcare professional and utilizing information and communication technology (ICT) (8). ICTs offer a new perspective on the relationship between healthcare professionals and patients, emphasizing communication, interaction, and mutual cooperation (7).

In recent years, mobile applications have prevention of side effects during treatment (7). The mHealth app can be easily incorporated into the routine care of patients with oral cancer after treatment to easily provide medical information and improve patients' self-management abilities, thereby reducing their physiological care needs and promoting better health (2).

Mobile applications facilitate remote monitoring so that patients with cancer can take more responsibility for health control, empowerment support, safety improvement, and quality of their care. They also help reduce the number of visits to health institutions, save time for doctors and patients, create effective communication between doctors, patients, and their families, and provide easy access to information to help manage side effects.

***Corresponding author:**
Maede Zare, MSC Student
Mazandaran - Sari - Khazar Square - Farah Abad Blvd - 17 km
Khazar Abad - Mazandaran University of Medical Sciences -
Faculty of paramedicine – 01133543246
Tel: + 98 9396136981
Fax: +98 33543245
Email: maedezare231@gmail.com

REFRENCES:

1. Song B, Sunny S, Li S, Gurushanth K, Mendonca P, Mukhia N, et al. Mobile-based oral cancer classification for point-of-care screening. *J Biomed Opt*. 2021;26(6).

2. Wang TF, Huang RC, Yang SC, Chou C, Chen LC. Evaluating the Effects of a Mobile Health App on Reducing Patient Care Needs and Improving Quality of Life After Oral Cancer Surgery: Quasiexperimental Study. *J JMIR Mhealth Uhealth.* 2020;8(7):e18132.

3. Cossich T, Schofield P, McLachlan SA. Validation of the cancer needs questionnaire (CNQ) short-form version in an ambulatory cancer setting. *J Qual Life Res*. 2004;13(7):1225-33.

4. Chen SC, Yu WP, Chu TL, Hung HC, Tsai MC, Liao CT. Prevalence and correlates of supportive care needs in oral cancer patients with and without anxiety during the diagnostic period. *J Cancer Nurs*. 2010;33(4):280-9.

5. Yun YH, Shon EJ, Yang AJ, Kim SH, Kim YA, Chang YJ, et al. Needs regarding care and factors associated with unmet needs in disease-free survivors of surgically treated lung cancer. *J Ann Oncol*. 2013;24(6):1552-9.

6. Ziegler L, Newell R, Stafford N, Lewin R. A literature review of head and neck cancer patients information needs, experiences and views regarding decision-making. *Eur J Cancer Care (Engl)*. 2004;13(2):119-26.

7. Ana F-A, Loreto M-S, José L-MM, Pablo SM, Pilar MJM, Myriam S-LA. Mobile applications in oncology: a systematic review of health science databases. *Int J Med Inform*. 2020;133:104001.

8. Hochstenbach LM, Courtens AM, Zwakhalen SM, van Kleef M, de Witte LP. Self-management support intervention to control cancer pain in the outpatient setting: a randomized controlled trial study protocol. *J BMC Cancer*. 2015;15:416.