Use of a Smartphone Application for Prompting Oral Medication Adherence Among Adolescents and Young Adults With Cancer

Yelena P. Wu, PhD, Lauri A. Linder, PhD, APRN, CPON®, Patsaporn Kanokvimankul, BPharm, Brynn Fowler, MPH, Bridget G. Parsons, MSPH, Catherine F. Macpherson, RN, PhD, CPON®, and Rebecca H. Johnson, MD

OBJECTIVES: To explore the feasibility and acceptability of use of a smartphone medication reminder application to promote adherence to oral medications among adolescents and young adults (AYAs) with cancer.

SAMPLE & SETTING: 23 AYAs with cancer from a Children’s Oncology Group–affiliated children’s hospital and a National Cancer Institute–designated comprehensive cancer center in Salt Lake City, UT.

METHODS & VARIABLES: Participants were asked to use the application for eight weeks. Data on application usage were obtained from a cloud-based server hosted by the application developers. Weekly self-report questionnaires were completed. Feasibility was assessed through participants’ usage and responses. Acceptability was assessed through participants’ perceived ease of use and usefulness.

RESULTS: Almost all participants used the application at least once. More than half reported that they took their medications immediately when they received reminders. Participants also reported that the application was easy to set up and use, and that it was useful for prompting medication taking.

IMPLICATIONS FOR NURSING: Nurses could continue to test the efficacy of integrating e-health modalities, such as smartphone applications, into efforts to promote medication adherence.

Keywords: medication nonadherence; adolescent; young adult; e-health; oral medications

ONF, 45(1), 69–76.
DOI 10.1188/18.ONF.69-76