

The Association Between Patient-Reported and Objective Oral Anticancer Medication Adherence Measures: A Systematic Review

Thomas M. Atkinson, PhD, Vivian M. Rodríguez, PhD, Mallorie Gordon, MA, Isabelle K. Avildsen, BA, Jessica C. Emanu, MA, Sarah T. Jewell, MLIS, Kimberly A. Anselmi, BSN, RN, OCN[®], and Pamela K. Ginex, EdD, RN, OCN[®]

Atkinson is an assistant attending behavioral scientist, Rodríguez is a postdoctoral research fellow, Gordon is a graduate research fellow, Avildsen is a research study assistant, and Emanu is a research study assistant II, all at Memorial Sloan Kettering Cancer Center in New York, NY; Jewell is an information and education librarian at Rutgers University in New Brunswick, NJ; and Anselmi is an ambulatory nurse and Ginex is a nurse scientist, both at Memorial Sloan Kettering Cancer Center.

This project was funded by a National Institutes of Health Research Training Grant (T32 CA009461-25) and a National Institutes of Health Support Grant (P30 CA08748-49), which provides partial support for the Behavioral Research Methods Core Facility used in conducting this investigation. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the *Oncology Nursing Forum* or the Oncology Nursing Society.

Atkinson, Rodríguez, Gordon, Avildsen, Emanu, Anselmi, and Ginex contributed to the conceptualization and design. Atkinson, Rodríguez, Gordon, Avildsen, Emanu, and Jewell completed the data collection. Atkinson, Rodríguez, Gordon, Avildsen, Emanu, Jewell, and Ginex provided the analysis. All authors contributed to the manuscript preparation.

Atkinson can be reached at atkinsot@mskcc.org, with copy to editor at ONFEditor@ons.org.

Submitted August 2015. Accepted for publication October 21, 2015.

Key words: medication adherence; neoplasms; oral medicine; patient outcome assessment

ONF, 43(5), 576–582.

doi: 10.1188/16.ONF.576-582

Problem Identification: Oral anticancer medication (OAM) use has been steadily increasing, leading to several patient benefits. A notable challenge for nurses is accurate monitoring of patient OAM regimens because nonadherence is associated with poor health outcomes and decreased survival. Currently, no gold standard measure of OAM adherence exists. The authors conducted a systematic review of the association between objective and patient-reported measures of OAM adherence.

Literature Search: A systematic electronic literature search was conducted using PubMed, EMBASE, Scopus, PsycINFO[®], Cochrane Library, Web of Science, and CINAHL[®] databases through November 2014.

Data Evaluation: Articles were independently reviewed to determine whether they included an original characterization of the level of association between objective and patient-reported measures of OAM adherence.

Synthesis: From a total of 11,135 articles retrieved, eight studies met inclusion criteria. Objective adherence was primarily assessed using pill counts or Medication Event Monitoring System (MEMSCap[™]). Patient-reported adherence was most commonly assessed using study-specific questionnaires. Significant positive correlations were observed between objective and patient-reported adherence across most studies, with three studies reporting higher rates of adherence via patient reporting.

Conclusions: Despite variation in the OAMs and measures used, patient-reported adherence rates were equal to or higher than objective adherence measures across studies. Social desirability bias may be a concern; however, given the significant concordance observed, using patient-reported methods in future studies of OAM adherence may be justified.

Implications for Nursing: This review provides evidence to support nursing use of patient-reported measures to accurately monitor OAM adherence and potentially improve the quality of patient-provider communication.

The use of oral anticancer medication (OAM) has been steadily on the rise to treat a variety of cancer types (Bedell, 2003; Moore, 2007; O'Neill & Twelves, 2002). OAMs allow patients to administer their own treatments from the privacy of their homes, decreasing the necessity for frequent clinic visits. As a result, OAMs have been shown to be a patient-preferred option, related primarily to the convenience of administration, as well as the perceived reduction in interference with everyday life (Foulon, Schoffski, & Wolter, 2011). The preference for oral over IV medications may also be related, in part, to an increase in perceived effectiveness and the perceived reduced toxicity of this method (Borner et al., 2002; Fallowfield et al., 2006; Thanki, Gangwal, Sangamwar, & Jain, 2013).

Despite the perceived benefits of OAM, adherence (defined, in this context, as the extent to which patients take their medications as prescribed by their healthcare providers either as part of clinical trial participation or routine