

Patient Use of Electronic Methods to Self-Report Symptoms: An Integrative Literature Review

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PROBLEM IDENTIFICATION: Clinicians are unaware of most of their patients' symptoms. Symptoms may be poorly documented and their impact underestimated. Undertreatment of symptoms may lead to increased symptom distress and decreased quality of life. Improving the communication of symptoms to nurses is vital in symptom management and quality-of-life improvement. Electronic patient self-report of symptoms may be beneficial.

LITERATURE SEARCH: An integrative review of the literature was conducted to describe the use of electronic methods for symptom self-report by patients with cancer and to inform best practices.

DATA EVALUATION: The final sample for this integrative review consisted of 36 studies (32 quantitative and 4 qualitative).

SYNTHESIS: Data analysis was used to summarize the findings of the 36 studies. Patients with cancer found electronic self-report of symptoms to be feasible and the devices usable. Electronic symptom reporting may improve patient-clinician communication, leading to improved physical and psychosocial outcomes.

IMPLICATIONS FOR PRACTICE: In the studies that included an interactive communication component, oncology nurses were central in receiving, reviewing, and reporting changes to the provider. Patients expressed themselves more when consulting with nurses than with physicians.

KEYWORDS electronic self-report; patient self-report; patient-reported symptoms; integrative review
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Patients with cancer experience acute and chronic symptoms caused by their disease and its treatment (Portenoy et al., 1994). However, clinicians are often unaware of patients' symptoms (Bruera, Sweeney, Calder, Palmer, & Benisch-Tolley, 2001; Butow, Brown, Cogar, Tattersall, & Dunn, 2002; Chang, Hwang, Feuerman, & Kasimis, 2000; Newell, Sanson-Fisher, Girgis, & Bonaventura, 1998) and fail to recognize 50%–80% of these symptoms (Epstein & Street, 2007; Farrell, Beaver, Heaven, & Maguire, 2001; Ryan et al., 2005). Even when symptoms are recognized, they may be underdocumented and undertreated, with their impact underestimated (McIntyre, 2015). Discordance exists between clinicians' findings during assessment and patients' reported symptoms (Basch et al., 2006; Petersen, Larsen, Pedersen, Sonne, & Groenvold, 2006), which leads to unmanaged symptoms. Inadequate management of treatment-related toxicities may increase symptom distress and negatively affect quality of life (Cella, 1997; Lee, 2008). Worsening symptoms may lead to emergency department visits and have a negative impact on patient outcomes, including survival (Barbera et al., 2013; Efficace et al., 2012). A vast array of instruments is being used to capture and measure symptoms, as well as to examine the complexity of caring for patients and treating and managing their symptoms (Basch et al., 2007; Berry et al., 2014; Blum et al., 2014; Cella et al., 2014; Fromme, Eilers, Mori, Hsieh, & Beer, 2004).

Reporting the prevalence, severity, and impact of symptoms is essential in oncology symptom management (White, McMullan, & Doyle, 2009). Reilly et al. (2013) concluded that any clinical study evaluating the impact of treatment on patients should consider including patient self-reporting of symptoms, which is also referred to as patient-reported outcomes.

The U.S. Food and Drug Administration and the National Cancer Institute have stated that a patient's own description of symptoms should be considered