

## An Internet Intervention for Management of Uncertainty During Active Surveillance for Prostate Cancer

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About 240,890 men will be diagnosed with prostate cancer in 2011 (Siegel, Ward, Brawley, & Jemal, 2011). Surgery and radiation are the primary treatments for prostate cancer; however, active surveillance (AS) (sometimes referred to as watchful waiting) is an alternative approach to managing more low-risk forms of prostate cancer, with about 10% of all low-risk patients with prostate cancer undergoing this management option (Cooperberg, Broering, Kantoff, & Carroll, 2007). Candidates for AS usually are men aged 65 and older with stage T1c disease, prostate-specific antigen (PSA) density lower than 0.15 ng/ml/cm<sup>3</sup>, and a Gleason grade lower than 6 following biopsy (Warlick, Allaf, & Carter, 2006). AS allows men to avoid expensive treatments and the well-documented adverse events of erectile dysfunction and incontinence. However, AS is associated with illness uncertainty and reduced quality of life (QOL) (Bailey, Mishel, Belyea, Stewart, & Mohler, 2004; Wallace, 2003). Uncertainty is a cognitive state resulting from insufficient cues with which to form a cognitive schema (i.e., meaning of a situation or event) (Mishel, 1988). Multiple studies have found that uncertainty negatively affects coping, well-being, perception of mental health, psychological adjustment, depression, and QOL. McCormick (2002) reported, "Uncertainty is a major component of the illness experience and can dramatically affect psychosocial adaptation and outcomes of disease states" (p. 127).

The consequences of uncertainty are clinically important and can be managed with nursing interventions focusing on patient support, information, and cognitive reframing. An uncertainty management intervention was developed by Mishel et al. (2002) for women treated for breast cancer and men treated for prostate cancer. Through previous work (Kazer, Bailey, Colberg, Kelly, & Carroll, 2011; Kazer, Bailey, & Whittemore, 2010), the current investigators developed a functional Internet-based uncertainty management intervention (Alive and Well). Alive and Well incorporates cognitive reframing and self-management strategies

**Purpose/Objectives:** To provide preliminary data on an Internet intervention that incorporates cognitive reframing and self-management strategies to help older men undergoing active surveillance (AS) self-manage disease-related issues and improve quality of life (QOL).

**Design:** Single-subject design.

**Setting:** Two participating urologic practices at major academic medical centers in the northeastern United States.

**Sample:** 9 patients undergoing AS.

**Methods:** Baseline data were compared to data immediately after completion of the intervention and five weeks later. Telephone interviews were used to determine overall feasibility as well as the ease of use, user friendliness, and acceptability of the intervention in patients undergoing AS.

**Main Research Variables:** Self-efficacy, uncertainty, and QOL.

**Findings:** The results revealed change between baseline (time 1) and intervention completion (time 2) in the majority of variables, with a return toward baseline after the intervention (time 3). Ten of the 12 measures of intervention acceptability were met. The results showed positive trends in the impact of the intervention and good overall acceptability.

**Conclusions:** The results of this pilot study will lead to further research aimed at helping men manage issues related to AS and improve QOL.

**Implications for Nursing:** The intervention may reduce the overtreatment of prostate cancer in men who are clinically appropriate for this management option.

to help older men undergoing AS self-manage disease-related issues (e.g., uncertainty, health behaviors) and improve QOL. The Internet intervention includes (a) general information about prostate cancer and AS and what patients should expect; (b) cognitive reframing strategies such as avoiding negatives and focusing on the positive, normalizing and maintaining routines, and information gathering; (c) self-care management strategies from the American Cancer Society Recommendations for Nutrition and Physical Activity for Cancer Prevention, including weight control, exercise, limiting meat and alcohol, and smoking cessation