

# Measuring Post-Traumatic Growth in People Diagnosed With Hepatobiliary Cancer: Directions for Future Research

Jennifer L. Steel, PhD, T. Clark Gamblin, MD, and Brian I. Carr, MD, PhD, FRCP

**Purpose/Objectives:** To highlight and provide preliminary data regarding issues in the measurement of post-traumatic growth in people diagnosed with primary or metastatic hepatobiliary cancer.

**Design:** Prospective.

**Setting:** A large medical center in Pittsburgh, PA.

**Sample:** 120 patients with hepatobiliary cancer.

**Methods:** Participants were administered a battery of questionnaires, including the Post-Traumatic Growth Inventory (PTGI), Center for Epidemiological Studies–Depression scale, and the Functional Assessment of Cancer Therapy–Hepatobiliary module. Family caregivers also rated patients' post-traumatic growth. Qualitative data collected from patients included positive and negative changes associated with their cancer diagnoses.

**Main Research Variables:** Post-traumatic growth, depression, quality of life, and caregiver ratings of patients' post-traumatic growth.

**Findings:** The results revealed that the PTGI is a reliable instrument in people diagnosed with cancer. The level of post-traumatic growth varies depending on hepatobiliary cancer type. The onset and process of post-traumatic growth differed based on the method of measurement employed (qualitative versus quantitative). Agreement on the PTGI was high between patients and caregivers, suggesting that the patients' growth was observable to others. Post-traumatic growth was not found to be associated with depressive symptoms, quality of life, or survival in patients diagnosed with hepatobiliary cancer.

**Conclusions:** The results of this study underscore the need to understand differences in the measurement and the process of post-traumatic growth in people with cancer.

**Implications for Nursing:** For some patients, post-traumatic growth as a result of a cancer diagnosis may be associated with positive cognitive, emotional, and behavioral changes that influence mental and physical health. For patients who experience post-traumatic growth, healthcare providers may be able to facilitate behavior changes to enhance health.

Post-traumatic growth may be defined as “a positive cognitive process that is initiated to cope with traumatic events that extract an extreme cognitive and emotional toll” (Tedeschi & Calhoun, 1995, p. 5). Recently, the study of post-traumatic growth in patients with cancer has burgeoned (Cordova, Cunningham, Carlson, & Andrykowski, 2001; Fromm, Andrykowski, & Hunt, 1996; Helgeson, 2005; Manne et al., 2004; McGregor et al., 2004; Sears, Stanton, & Danoff-Burg, 2003; Stanton et al., 2002). Terms such as “benefit finding” (Affleck & Tennen, 1996; Antoni et al., 2001) and “stress-related growth” (Park, Cohen, & Murch, 1996)

## Key Points . . .

- ▶ Post-traumatic growth varies with the type of cancer and how the onset and process differ based on the method of measurement employed.
- ▶ A high level of agreement was seen on the Post-Traumatic Growth Inventory between the patient and the caregiver, suggesting that post-traumatic growth is observable.
- ▶ The results of this study underscore the need for further research in regard to the measurement and process of post-traumatic growth in patients with cancer.

also have been used to describe the construct. Researchers are beginning to explore the possibility that a diagnosis of cancer may serve as a catalyst for personal growth (Sears et al.). Post-traumatic growth may result in psychological and health benefits, but the study of post-traumatic growth is in its infancy.

A multitude of research exists regarding the negative effects of chronic illness on health-related quality of life (Ettema et al., 2005; Kalantar-Zadeh & Unruh, 2005; Tuzun, 2007; Younossi, Kallman, & Kincaid, 2007). Healthcare professionals have recognized physical and psychological suffering, but the broader significance of such suffering, including restrictions placed on life, social isolation, discreditation by others, and the feeling of being a burden to others as a result of a chronic illness, often is minimized. Despite those consequences, some individuals with chronic illness report positive changes in their lives as a result of a diagnosis with a chronic or life-threatening illness.

*Jennifer L. Steel, PhD, is an assistant professor, T. Clark Gamblin, MD, is an assistant professor, and Brian I. Carr, MD, PhD, FRCP, is a professor, all in the Department of Surgery in the Starzl Transplantation Institute at the University of Pittsburgh Medical Center in Pennsylvania. No financial relationships to disclose. 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. (Submitted September 2007. Accepted for publication November 21, 2007.)*

Digital Object Identifier: 10.1188/08.ONF.643-650