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Contextual Factors, Cognitive Appraisal, and Quality of Life During Cancer Treatment

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Purpose:

Cancer continues to be a major public health problem worldwide, and it is the second leading cause of death in the United States (U.S.) (CDC, 2017). While cancer treatment has become more successful, cancer incidence trends have remained stable in women and have declined only by 3.1% per year in men (Siegel et al., 2016). Each day in the U.S., approximately 4,600 new cancer cases occur with a total of 1,688,780 cases projected for 2017 (ACS, 2017). With these staggering numbers, it is important to understand how individuals newly diagnosed with cancer perceive their experience and manage the day to day effects of treatment. The purpose of this study was to extend a previous research design and assess factors associated with treatment and cognitive appraisals and the impact of these variables on quality of life outcomes for individuals during cancer treatment.

Methods:

Potential subjects ($N = 164$) were recruited from oncology offices in the Midwest of U.S. Subjects were invited to participate by their oncologist soon after their initial diagnosis. Following informed consent, those agreeing to participate completed the instruments at the oncology office. Longitudinal data were collected at three points in time: initial diagnosis, four months after diagnosis, and one year following diagnosis. For the follow-up data collection, subjects received mailed instruments along with another letter of informed consent and a stamped envelope for return mailing. Based on the Transactional model of stress and coping (Lazarus & Folkman, 1984), constructs were measured. Contextual factors such as type of treatment and symptoms were measured by a researcher developed set of questions. Cognitive appraisals were measured by the Cognitive Appraisal of Health Scale (Kessler, 1998), and quality of life outcomes were measured by the Quality of Life Index, Cancer Version-III (Ferrans, 1990).

Results:

At the initial assessment, 81 subjects participated. At four months, 65 subjects (80% response rate) provided complete data, and at 12 months, 48 subjects (59% response rate) provided complete data. The majority of participants were female, white, had at least a high school education, married, and no longer working full-time at all three data collection points. Attrition occurred at each subsequent data collection point; however, demographic characteristics of the sample did not change significantly at each data collection point ($p < .05$). The top three cancer diagnoses were: 40% breast, 17% lung, and 10% colon. Over half of the subjects (57%) received chemotherapy as their initial treatment followed by surgery, radiation and hormones each at 14%. Loss of energy/being tired (54%) and nausea (45%) were the most common side effects attributed to treatment. For assessment of the main constructs, threat, harm/loss, and challenge appraisals and quality of life changed significantly over time ($p < .05$) while benign/irrelevant appraisals did not change significantly ($p > .05$). The greatest variation in appraisals and quality of life occurred at four months after initial diagnosis. Threat and challenge appraisals were lower compared to harm/loss and benign/irrelevant appraisals. Six independent variables of age, time since diagnosis, and the cognitive appraisals of threat, challenge, harm/loss, and benign/irrelevant explained the variance in quality of life scores at initial assessment, $R^2 = .85$, $F(6, 73) = 65.78$, $p < .001$; at 4 months, $R^2 = .74$, $F(6, 58) = 18.09$, $p < .001$; and at one year, $R^2 = .87$, $F(6, 40) = 36.80$, $p < .001$.

Conclusion:

The findings provide theoretical support for the Transactional model and the impact key contextual factors and cognitive appraisals have on quality of life outcomes during cancer treatment and were similar to previous research. While the diagnosis of cancer may be perceived as stressful, individuals identified the diagnosis as more of a challenge than a harm/loss or threat. Understanding of the cancer experience trajectory enhances the health care community's ability to support those in treatment and supports the continued assessment of the patient's day to day perceptions of the disease and its impact on quality of life.

Title:

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Keywords:

cancer, cognitive appraisal and quality of life

References:

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Abstract Summary:

Contextual factors and cognitive appraisals of stress provide strong explanatory power for variations in quality of life scores following the diagnosis of cancer. An improved understanding of the cancer experience trajectory enhances the health care community's ability to support those in treatment and their perceptions of the disease.

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- C. Theoretical Model – Transactional model
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III. Results

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- D. Regression analysis

IV. Conclusions

- A. Supports Transactional model
- B. Stressful appraisal
 - a. Challenge
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- C. Impact on meeting outcomes

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Professional Experience: Dr. Kessler is Professor and Kreft Endowed Chair at Valparaiso University, USA. Her clinical area of expertise is adult health nursing, and she is certified as an Adult Health Clinical Nurse Specialist through the American Nurses Credentialing Center. She has an active consulting practice. Dr. Kessler has been active with the Indiana Division of the American Cancer Society and the Zeta Epsilon Chapter of Sigma Theta Tau International. Her research interests include cognitive appraisal and quality of life for individuals facing cancer, the health status of underserved adults, and smoking cessation among underserved pregnant women and college students. She has published book chapters and is published in a variety of journals including: Journal of Professional Nursing, Research in Nursing and Health, Nursing Leadership Forum, Oncology Nursing Forum, Seminars in Oncology Nursing, Clinical Journal of Oncology Nursing, Journal of Community Health Nursing, and Journal of Nursing Education.

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