

# Spirituality and Post-traumatic Growth Predict Fear of Recurrence among Young Adult Cancer Survivors

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## Background

Fear of recurrence (FoR) is a common concern among post-treatment cancer survivors. It has been conceptualized as comprising fear, anxiety and perceived risk (Park, 2012). These components may both affect and be affected by spiritual and existential factors (e.g., the level of meaning, life appreciation, perceived growth (Zebrack, 2009). Few studies have examined FoR among young adults (YAs) with cancer, especially its association with possible constructs of interest such as religion/spirituality and post-traumatic growth. This study explored the relationship between FoR, spiritual well-being, and posttraumatic growth among YA cancer survivors at different times post treatment.

## Methods

As part of a larger study, YA cancer survivors (ages 18-39; N=335, SD 5.4) were recruited from an online research panel. Participants were:

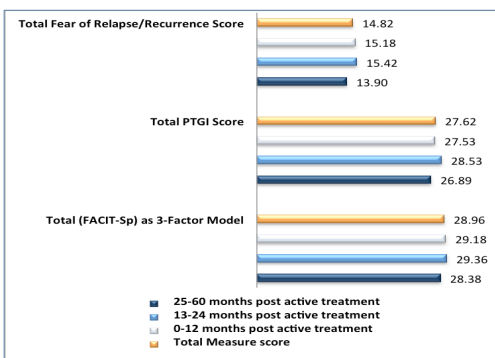
- 68.4% Women
- 83.9% White
- 63.0% Married / Living with a Partner
- 60.6% College Education
- 57.3% Employed Full-Time
- Cancer Type: 23.9% Breast, 11.6% Cervical, 11.0% Melanoma

Participants were stratified by cohort of time post-active treatment: 0-12 (N=120), 13-24 (N=102), and 25-60 months (N=113).

They completed questions on:

- *Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being* (FACIT-Sp; Peterman, 2002), ( $\alpha = .81$ ); Subscales: Peace, Meaning, Faith
- *Post Traumatic Growth Inventory-Short Form* (PTGI-SF; Tedeschi & Calhoun, 1996), ( $\alpha = .91$ ); Subscales: Appreciation for Life, Personal Strength, Relating to Others, New Possibilities, Spiritual Change
- *Fear of Recurrence Scale* (FoR, Greenberg & Kornblith, 1997), ( $\alpha = .75$ )

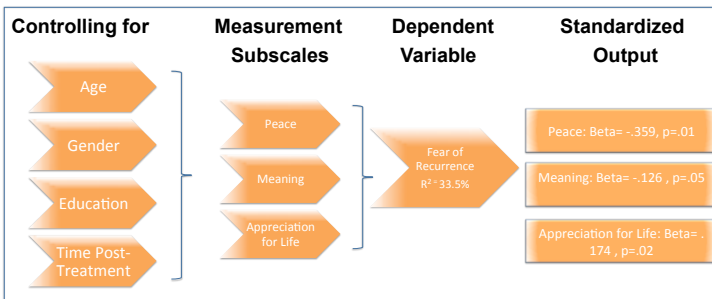
## Mean Measurement Scores by Time



## Results

Average FoR scores were 14.82 (Range 5-24), with the highest levels occurring 13-24 months post-treatment ( $M=15.42$ ). The 13-24 month post-treatment cohort reported levels that were significantly higher than the FoR scores occurring 25-60 months post-treatment ( $M=13.90$ ,  $p<.05$ ). FACIT-Sp and PTGI-SF total scores were correlated with each other ( $r=.28$ ,  $p<.01$ ). In a hierarchical multiple regression model controlling for age, gender, time post-treatment and education, significant predictors of FoR included peace, meaning, and appreciation of life.

## Regression Model



## Conclusion

FoR appears to be greatest among YA survivors between 13 and 24 months after completing treatment, compared with the earlier and later survival time cohorts. Perhaps FoR is greatest at this time because treatment, and the reassurance it provides in terms of cancer control, has recently ended and patients are newly adjusting to the psychosocial demands of surveillance.

Spirituality was measured by personal meaning and peace, which were associated with decreased levels of FoR, suggesting spirituality is a source of comfort among cancer patients. Findings are supported by studies on perceived risk, worry and demographics characteristics with FoR (Park, 2012, McGinty, 2012, Janz, 2011). In contrast, appreciation for life was associated with increased FoR, implying a more complex relationship than current studies have suggested (Weiss, 2002, Manne, 2003).

Findings from this and other recent studies suggest that the relationship between age and FoR is complex (Crist, 2012), especially when we consider the emotional and cognitive components related with spirituality. Longitudinal study designs are needed to better understand the course of FoR over time and to identify optimal strategies for managing FoR among YA survivors.

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