

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

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Background

- Cancer is a worldwide public health problem.
- Incidence rates are stable in women and declined by 3.1% in men/year. (Siegel et al., 2016)
- Comprehensive outcome measurements evaluating recovery and day-to-day survival as perceived by the individual are necessary.



The Cancer Diagnosis

- **Different Meanings**
- **Responses**
 - Emotional
 - Behavioral
- **Time of Making Decisions**
 - Treatment
 - Day-to-day functioning
 - Survival



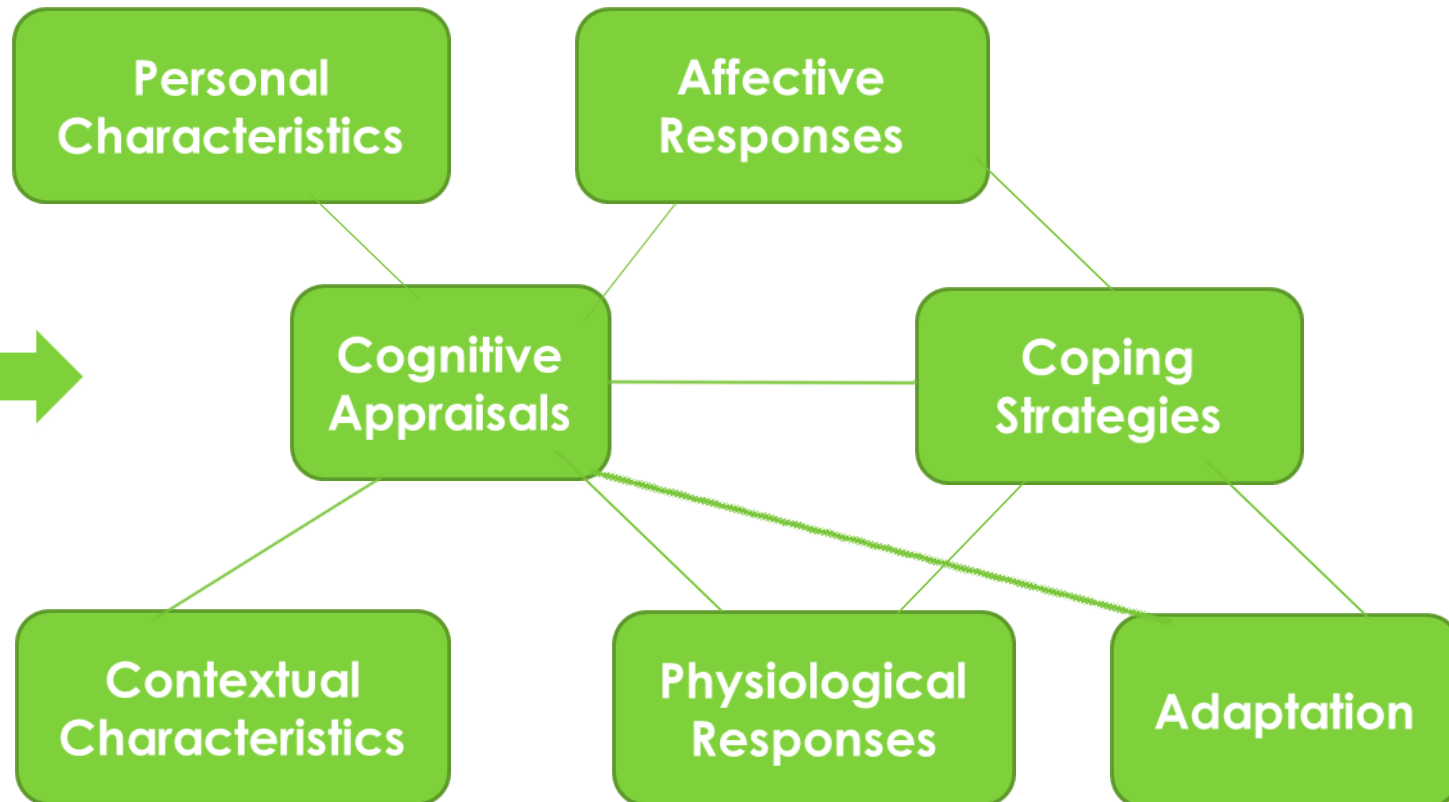
Purpose

- Three aims:
 - Repeat a previous research design
 - Assess factors associated with treatment and cognitive appraisals
 - Assess the impact of these variables on quality of life outcomes for individuals during cancer treatment



Transactional Model of Stress and Coping

(Lazarus & Folkman, 1984)



Method

- **Repeated Measures Design**
 - Collection of data at 3 times
 - Initial diagnosis, 4 months & one year
- **Non-probability Sample (N = 164)**
 - Initial – 81 subjects with various cancer diagnoses; 49% response rate
 - 4 Months – 65 subjects (80%)
 - 1 Year – 48 subjects (49%)
- **Instruments**
 - Measures of: personal and contextual characteristics, cognitive appraisal, & quality of life



Instruments

- **Personal & Contextual Characteristics**

- Researcher developed instrument to measure personal characteristics and treatment outcomes related to cancer
(Kessler, 2013)

- **Cognitive Appraisal of Health Scale (CAHS)**

- Measures primary (threat, challenge, harm/loss, benign/irrelevant) & secondary appraisals on a 5-point Likert scale
(Kessler, 1998)

- **Quality of Life Index (QLI)**

- Measures satisfaction & importance of factors contributing to overall quality of life on a 6-point Likert scale
(Ferrans & Powers, 1998)



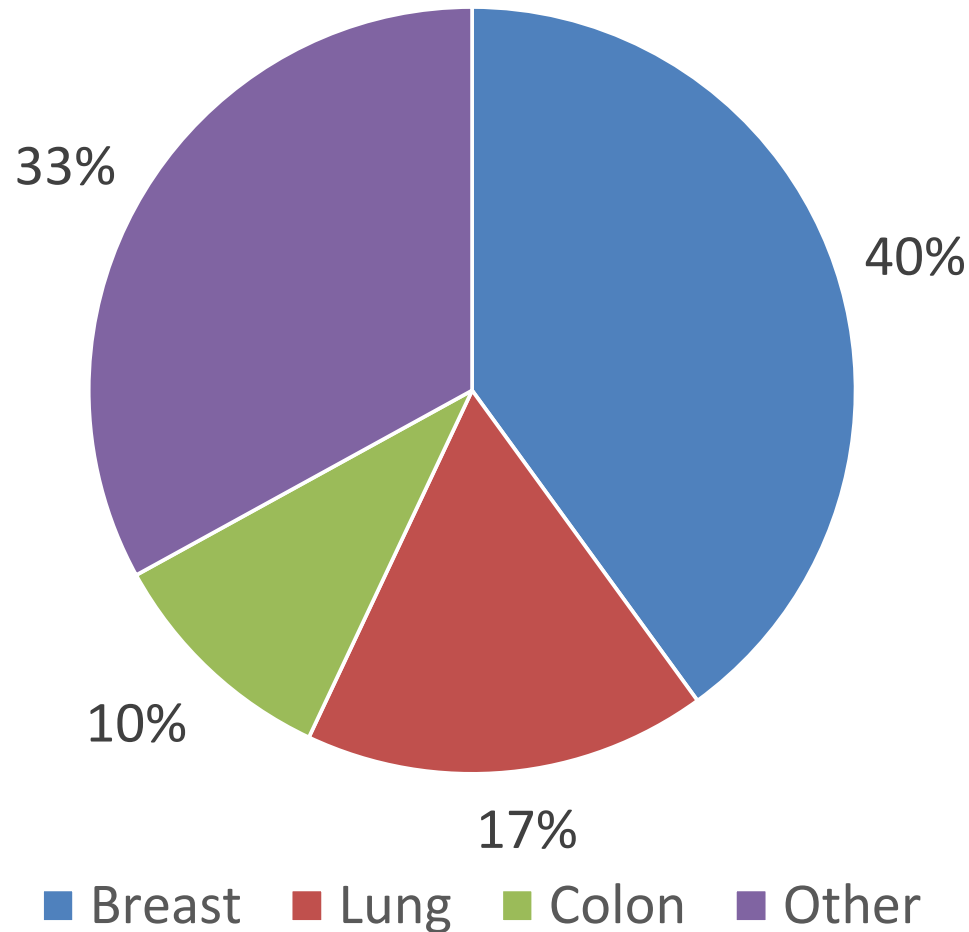
Personal Characteristics & Treatment Outcomes

- **Age:**
 $M = 62.04$ ($SD = 13.15$)
- **Education:**
 $M = 13.5$ years ($SD = 2.9$)
- **Gender:**
Females 71.4%
- **Marital Status:**
Married 78.6%
- **Employment:**
43% retired
25% full time
14% part-time
11% disabled
7% unemployed
- **Self-Treatment:** ($n = 42$)
92.9% vitamins
7.1% herbs



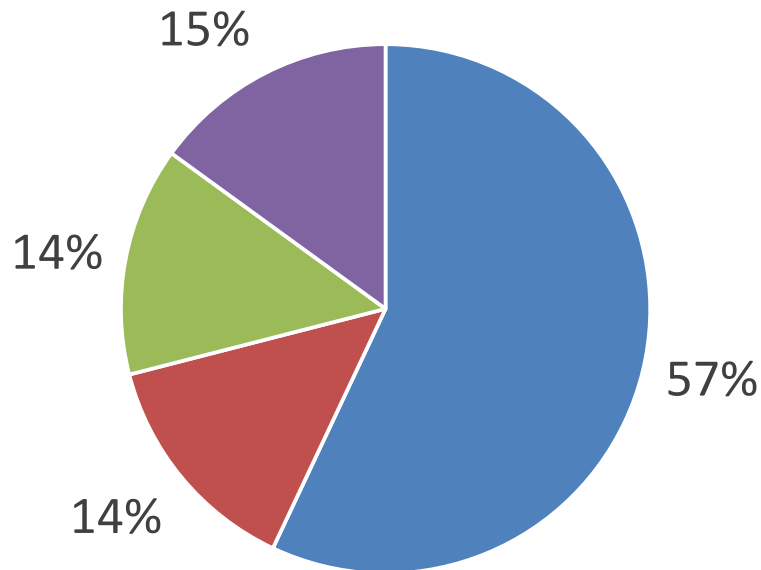
Treatment Outcomes

Cancer Diagnoses



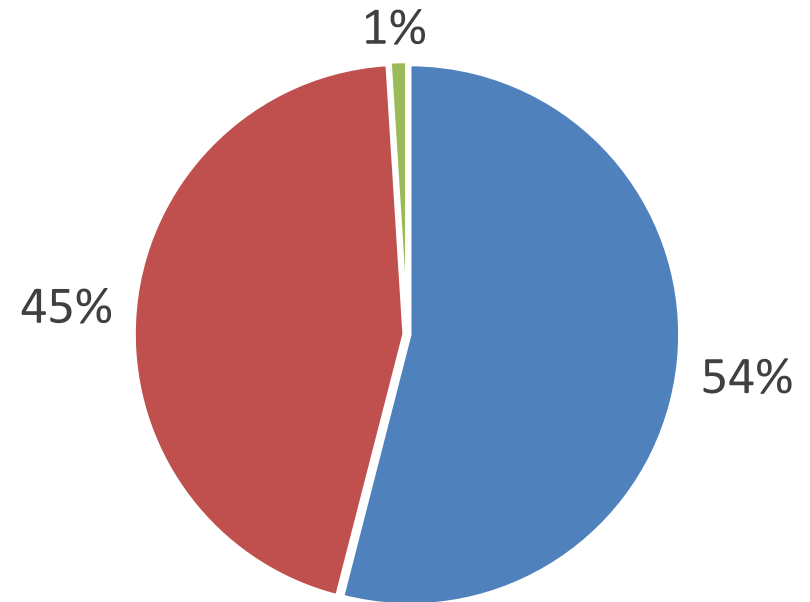
Treatment Outcomes

Types of Treatment



■ Chemotherapy ■ Surgery
■ Radiation ■ Hormones

Side Effects



■ Loss of Energy ■ Nausea ■ Other

Findings:

Main Constructs

	Threat (5-25)	Harm/ Loss (8-40)	Challenge (6-30)	Benign/ Irrelevant (4-20)	Quality of Life Index (0-30)
Time 1 Initial Diagnosis	14.67	21.07	22.77	9.91	22.44
Time 2 4 months	13.34	22.54	18.00	14.06	25.04
Time 3 1 Year	13.09	18.75	23.91	10.25	24.46

Findings:

Multiple Regression

- **Regression Model at Initial Diagnosis**

- Variables entered:

- age, time since diagnosis, cognitive appraisals – threat, challenge, harm/loss, & benign/irrelevant on QOL

- 6 Variables explained 85% of variance in QOL
 $F = (6, 73) = 65.78, p < .001$

(Number of symptoms entered previously)



Findings:

Multiple Regression

- **Regression Model at 4 months – Time 2**
 - Variables entered:
 - age, time since diagnosis, cognitive appraisals – threat, challenge, harm/loss, & benign/irrelevant on QOL
 - 6 Variables explained 74% of variance in QOL
 $F = (6, 58) = 18.09, p < .001$



Findings:

Multiple Regression

- **Regression Model at 1 Year – Time 3**
 - Variables entered:
 - age, time since diagnosis, cognitive appraisals – threat, challenge, harm/loss, & benign/irrelevant on QOL
 - 6 Variables explained 87% of variance in QOL
 $F = (6, 40) = 36.80, p < .001$



Conclusions

- Theoretical support for Transactional Model
- Cancer diagnosis viewed as stressful:
 - Diagnosis was not benign/irrelevant
 - Harm/loss appraisals, strongest at Time 2
 - Challenge appraisals, weakest at Time 2
 - Threat appraisals (past harm/loss) tended to decrease over time
- Quality of life improved over time but was highest at Time 2



Conclusions

- Person factors (age) and Contextual factors (time since diagnosis) impacted adaptation to the cancer diagnosis measured as quality of life
- Cognitive appraisals (threat, harm/loss, challenge, & benign/irrelevant) also impacted adaptation as measured by quality of life



Recommendations

- Continue to validate use of the CAHS in other populations
- Assess perceptions of those with cancer – stressful appraisals
- Repeat study with other health conditions, such as those living with heart failure

