

# Function and friction at work: a multidimensional analysis of work outcomes in cancer survivors

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## Abstract

**Objectives** Cancer survivors can experience difficulties returning to and/or remaining at work. Sociodemographic, health and well-being, symptom burden, functional limitations in relation to work demands, work environment, and various work policies and procedures can be related to work function.

**Methods** This study analyzed cross-sectional data of a sample of cancer survivors ( $n=1,525$ ) who were diagnosed and treated for various types of cancer. The data were obtained from a survey of cancer survivors collected by the LiveStrong Foundation. Using a cancer survivorship and work model proposed in 2010, this study used structural equation modeling to predict work ability (whether survivors reported lower work ability following cancer) and work sustainability (whether survivors had ever lost or left a job because of cancer, i.e., work retention). Potential predictors included health and well-being, symptom burden (e.g., fatigue, pain, and distress), cancer-related worry, worry about family's cancer risk, functional impairment (i.e., physical, cognitive, and interpersonal), workplace support, and workplace problems.

**Results** The overall model predicting work ability (CFI=0.961, TLI=0.952, and RMSEA=0.027) indicated that a greater level of functional limitations ( $B=5.88, p<0.01$ ) and workplace problems ( $B=0.22, p=0.05$ ) were significantly related to lower levels of work ability. Structural equation modeling (CFI=0.961, TLI=0.952, and RMSEA=0.027) also indicated that workplace problems was a significant predictor ( $B=0.498, p<0.001$ ) of the likelihood of losing or leaving a job because of cancer.

**Conclusions** Functional limitations and problems at work including poor treatment, discrimination, being passed over for promotion, and lack of accommodations were directly related to the ability to work. Problems at work were associated with lower work sustainability (work retention).

**Implications for Cancer Survivors** Employed cancer survivors, health care providers, and employers need to be aware of the potential implications of limitations in function (e.g., physical, cognitive, and interpersonal/social) as it relates to ability to work. In many cases, these functional limitations are responsive to rehabilitation. Workplaces also need to be educated on how to better respond to the needs of cancer survivors at work.

The opinions and assertions contained herein are the private views of the authors and are not to be construed as being official or as reflecting the views of the Uniformed Services University of the Health Sciences or the Department of Defense.

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## Background

The number of cancer survivors in the USA has surpassed 13 million, and 40 % of these survivors are of working age [1]. The successful transition back to work and maintenance of employment can be concerns for many of those survivors, because paid employment provides income, access to health insurance (in the USA), as well as self-identity, self-esteem, representation of an individual's talents and abilities, and a basis for forming and maintaining social relationships [2]. However, many cancer survivors face difficulties in achieving optimal work outcomes. Employed breast cancer survivors, for

example, experience higher levels of fatigue, depression, and cognitive limitations than noncancer comparison groups [3, 4], as well as greater work limitations [4]. Cancer survivors are more likely to be unemployed than healthy controls [5] and are more likely to file claims related to job loss or differential treatment because of workplace policies compared with workers with other medical conditions [6]. One study of cancer survivors in the USA found that while 92 out of 100 returned to work, 57 % of those reduced their working hours by more than 4 h/week and 56 % reported a change in their occupational role [7].

The cancer survivor's health status, symptom burden, and limitations in function [8–11] have been related to return to work and perceived work ability. There is very little information on the interrelationships among these variables and their association with work outcomes. Understanding the complex relationships among these factors is necessary to better inform individual and system-level interventions to improve both employers' and cancer survivors' work outcomes.

Feuerstein and colleagues developed a conceptual model of cancer survivorship and work based upon existing research on occupational outcomes in cancer survivors and the field of work disability in general [12]. The model provided a theoretical framework that proposed relationships among health and well-being, symptom burden, and functional limitations in relation to work demands and work outcomes (return to work, work ability, and work sustainability) in individuals post-primary treatment for cancer. The model also proposed that the work environment can directly affect work outcomes. Factors such as sociodemographic characteristics and system-level policies, procedures, and economic variables were also proposed as potentially influencing return to work, work ability, and/or work sustainability.

The present study investigated the direct relationships among sociodemographic characteristics, health and well-being, symptom burden, functional impairment, and work environment, on work ability and work sustainability (work retention). Although return-to-work is well studied in cancer survivors, other work outcomes such as work sustainability are not as well understood and merit further study [12]. This study was designed to validate major elements of the cancer survivor and work model. Specifically, this study examined the interrelationships among multiple variables related to work ability and work sustainability in cancer survivors with a history of many types of cancers and cancer treatment exposures.

## Methods

**Data collection** The data for the present study were obtained from the 2010 LiveStrong Foundation Survey, which was administered online and disseminated by the LiveStrong Foundation and collaborating partners from June 2010 to February 2011 [13]. The cancer survivors and work model [12] provided the overall structure for the analyses and items

from the LiveStrong Foundation Survey were extracted to provide proxy measures for the various elements in the model as related to work ability and work sustainability (Fig. 1). The specific items listed in Fig. 1 were selected based on availability in the survey and face validity.

**Participants** Inclusion criteria for the current analyses were: (1) prior diagnosis of cancer as an adult (age 18 or above), (2) completion of primary cancer treatment for the cancer (e.g., radiation therapy, chemotherapy, and/or surgery), (3) age 18–74 [14], (4) actively working at time of diagnosis or since diagnosis, (5) residing in the USA, and (6) ability to read English. Out of the original sample of 12,037 cancer survivors who completed the survey, 1,542 or 12.8 % met inclusion criteria for the current study. Participants indicated consent online before accessing the survey. The original survey was reviewed and approved by the Western Institutional Review Board. Participants were not compensated for completion of the survey. A data use agreement was completed between the investigators and the LiveStrong Foundation. Considering the absence of any identifiers in the dataset, this study was exempt by the Internal Review Board at the Uniformed Services University of the Health Sciences.

The final sample of 1,542 meeting inclusion criteria was compared with the full survey sample ( $N=12,037$ ) on demographic measures of age, gender, education, income, age at diagnosis, primary cancer site, treatment type, and time from end of primary treatment to survey completion. The groups did not differ on any of these variables except for time post-completion of primary treatment. A Wilcoxon signed-rank test found a significant difference between the final sample (median=37) and the original sample (median=23;  $Z=17.658$ ,  $p<0.001$ ) in months post-primary cancer treatment. This variable was accounted for in all subsequent analyses.

## Measures

### *Factors related to work outcomes*

Specific survey items were extracted, and a mean score was created for each of the following variables: comorbidity, lifestyle health, social well-being, cognitive problems, distress, fatigue, cancer worry, worry about family's cancer risk, physical function, cognitive function, social function, workplace support, and workplace problems. The final model to be tested included the following constructs: health and well-being (comorbidity, lifestyle health, and social well-being), symptom burden (cognitive problems, distress, fatigue, cancer worry, and worry about family's cancer risk), functional limitations (physical, cognitive, and social function), workplace support, and workplace problems. When possible, a minimum of three survey items were used to constitute a measure. Confirmatory factor analysis was used to verify construct validity [15]. Items were retained if confirmatory factor analysis indicated that the items reliably

formed the underlying construct. The original as well as final survey items used in the analysis appear in [Appendix 1](#).

*Specific work outcomes*

This study examined two dichotomous work outcomes: (1) *Work ability*: Participants identified whether they were unable to work full time, unable to work the same as before cancer, or unable to work at all; and (2) *Work sustainability*: Participants identified whether they had ever lost and/or left a job because of cancer. Participants who endorsed any of the three work-ability items were considered to have limited work ability. These items are analogous to but distinct from traditional measures of work ability, which asked respondents to compare their current work ability to the best work ability in their lifetime and assess degree of impairment because of disease and work ability in relation to job demands [16]. Two separate models (work ability and work sustainability) were tested using structural equation modeling (SEM) in MPlus Version 7.11 [17].

**Results**

Demographics and cancer characteristics

The average age of the sample was 49 years. The majority of participants were Caucasian (90.7 %), women (61.6 %), married or in a domestic partnership (72.1 %), received a bachelor’s degree or higher (56.4 %), and were currently employed full (59.3 %) or part-time (41.7 %). The demographic characteristics of the sample are presented in [Table 1](#). The current sample was younger than the US population of cancer survivors, whose median age is between 60 and 69 years [1]. The most common cancer types were breast (24.5 %), followed by testicular (8.8 %), colorectal (7.3 %), prostate (6.7 %), Hodgkin

lymphoma (5.8 %), and non-Hodgkin lymphoma (5.8 %). The representation of different cancer sites was comparable to the national population of cancer survivors [1]. Average time since completion of treatment was 3 years. In this sample, 15.8 % of respondents reported a second cancer or recurrence.

Constructs in the final model

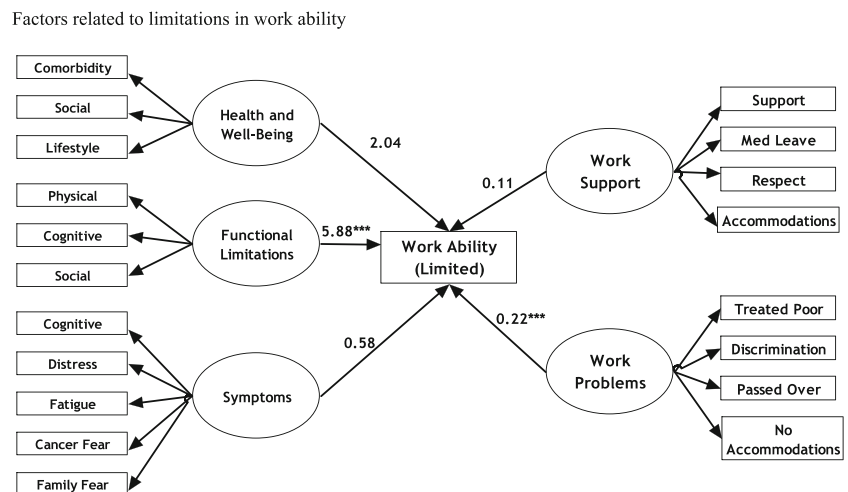
Confirmatory factor analysis using SEM measurement models was first conducted to empirically determine the items to indicate each construct. The measurement model for each construct demonstrated acceptable fit indices for social well-being, cognitive problems, fatigue, distress, cancer worries, worry about family’s cancer risk (CFI>0.9, TLI>0.9, RMSEA<0.8) [18], and did not require revision. Results of the SEM measurement models for each of the constructs (i.e., social well-being, lifestyle health, cognitive problems, fatigue, distress, cancer worries, worry about family’s cancer risk, work support, and work problems) are indicated in [Table 2](#).

A covariance matrix of all factors (health and well-being, symptoms, function, work support, and work problems) included in the final SEM analyses was generated to determine each factor’s association with work ability and work sustainability; the matrix is displayed in [Table 3](#). [Table 3](#) indicates a positive association between symptoms and function and among work problems, health and well-being, symptoms, and function. An inverse relationship between work problems and work support was also observed. The final models, illustrated in [Figs. 1](#) and [2](#), include the constructs with robust construct validity.

Factors related to work ability and work sustainability

When work ability was the outcome (see [Fig. 1](#)), the model obtained an overall good fit (CFI=0.961, TLI=0.952, RMSEA=0.027). This model indicated that only functional

**Fig. 1** Factors related to limitations in work ability. *Note:* CFI=0.96; TLI=0.95; RMSEA=0.027. \*\*\**p*<0.001



*Note:* CFI = 0.96; TLI = 0.95; RMSEA = 0.027. \*\*\* *p* < 0.001

**Table 1** Demographic and cancer characteristics (n=1,542)

Variable	n (%), mean (SD), or median
Current age	
Mean (SD)	49.1 (10.8)
Age range	20–74
Gender <sup>a</sup>	
Male	589 (38.4 %)
Female	946 (61.6 %)
Marital <sup>b</sup>	
Married/domestic partner	1,112 (72.1 %)
Single	234 (15.2 %)
Divorced, separated, or widowed	182 (11.8 %)
Total household income <sup>c</sup>	
\$0–40,000	161 (10.4 %)
\$41–60,000	206 (13.4 %)
\$61,000–80,000	189 (12.3 %)
\$81,000–100,000	204 (13.2 %)
\$101,000–120,000	164 (10.6 %)
\$120,000 or more	347 (22.5 %)
Education <sup>d</sup>	
High school or less	89 (5.8 %)
Trade school, technical school, or community college	209 (13.6 %)
Some college	349 (22.6 %)
Bachelor’s degree	503 (32.6 %)
Master’s degree	293 (19.0 %)
MD, PhD, or JD	74 (4.8 %)
Other	16 (1.0 %)
Race <sup>e</sup>	
White	1,398 (90.7 %)
Latino	62 (4.0 %)
African American	26 (1.7 %)
Asian	17 (1.1 %)
Other	38 (2.5 %)
Current employment status <sup>f</sup>	
Full time	915 (59.3 %)
Part time	171 (11.1 %)
Full-time student	25 (1.6 %)
Full-time caregiver	48 (3.1 %)
Self-employed	136 (8.8 %)
Not employed	96 (6.2 %)
Retired	100 (6.5 %)
Other	35 (2.3 %)
Health insurance status <sup>g</sup>	
Insured	1,494 (96.9 %)
Uninsured	47 (3.0 %)
Age at diagnosis	
Mean (SD)	42.7 (11.4)
Range	18–73
Months since treatment completion <sup>h</sup>	
Median	37 <sup>k</sup>
Range	0–464 months

**Table 1** (continued)

Variable	n (%), mean (SD), or median
Treatment type <sup>h</sup>	
Chemo	931 (60.4 %)
Radiation	743 (48.2 %)
Surgery	1,200 (77.8 %)
Hormonal	156 (10.1 %)
Had a recurrence or 2nd cancer <sup>i</sup>	
Yes	244 (15.8 %)
No	1,290 (83.7 %)
Cancer site <sup>j</sup>	
Breast	378 (24.5 %)
Colorectal	113 (7.3 %)
Hodgkin lymphoma	90 (5.8 %)
Melanoma	72 (4.7 %)
Non-Hodgkin lymphoma	89 (5.8 %)
Prostate	104 (6.7 %)
Testicular	135 (8.8 %)
Thyroid	64 (4.2 %)

<sup>a</sup> Seven participants missing  
<sup>b</sup> Fourteen participants missing or prefer not to answer  
<sup>c</sup> Two hundred seventy-one participants missing or prefer not to answer  
<sup>d</sup> Nine participants missing  
<sup>e</sup> One participant missing  
<sup>f</sup> Sixteen participants missing or prefer not to answer  
<sup>g</sup> Fifty-six participants missing  
<sup>h</sup> Three participants missing  
<sup>i</sup> Eight participants missing  
<sup>j</sup> Nine participants missing  
<sup>k</sup> Reported median because variable was not normally distributed

limitations and workplace problems were directly and significantly related to work ability.

For the outcome of work sustainability (having lost or left a job because of cancer), the model (see Fig. 2) obtained an overall good fit (CFI=0.961, TLI=0.952, RMSEA=0.027). For this model, all constructs were specified as predictors of work

**Table 2** Construct validity of variables in the model

Domain	# of items	RMSEA	CFI	TLI
Social well-being	5	0.099	0.982	0.963
Lifestyle health	4	0.082	0.978	0.934
Cognitive problems	5	0.224	0.919	0.838
Fatigue	3	0.000	1.000	1.000
Distress	7	0.109	0.916	0.874
Cancer worries	3	0.000	1.000	1.000
Worry about family’s cancer risk	3	0.000	1.000	1.000
Work support	4	0.064	0.982	0.947
Work problems	4	0.000	1.000	1.002

**Table 3** Covariance matrix

	Health and well-being	Symptoms	Function	Work support
Health and well-being				
Symptoms	1.021			
Function	0.957	0.830		
Work support	0.112	0.183	0.092	
Work problems	0.552	0.556	0.391	-0.211

sustainability. The final results indicated that only the construct workplace problems were significantly related to work sustainability.

**Discussion**

Each construct in the cancer survivor and work model that was tested was related to work ability and work sustainability. However, when all constructs were considered using an overall model, only functional limitations and workplace problems (including poor treatment, discrimination, being passed over for promotion, and not receiving accommodations) remained significant and directly related to work ability. When all constructs were entered into the SEM with work sustainability as the outcome, only negative work environment (workplace problems) was significantly and directly related to work sustainability.

Prior research has indicated that flexibility in the workplace is an important characteristic of successful work outcomes among employees with chronic medical illnesses [19–21]. A recent prospective study of 290 cancer survivors of four different cancer types found that greater sense of control over work among breast cancer survivors (HR, 1.2; 95 % CI, 1.09–1.37) and greater work flexibility among urological cancer survivors (HR, 1.70; 95 % CI, 1.07–2.7) predicted earlier return to work

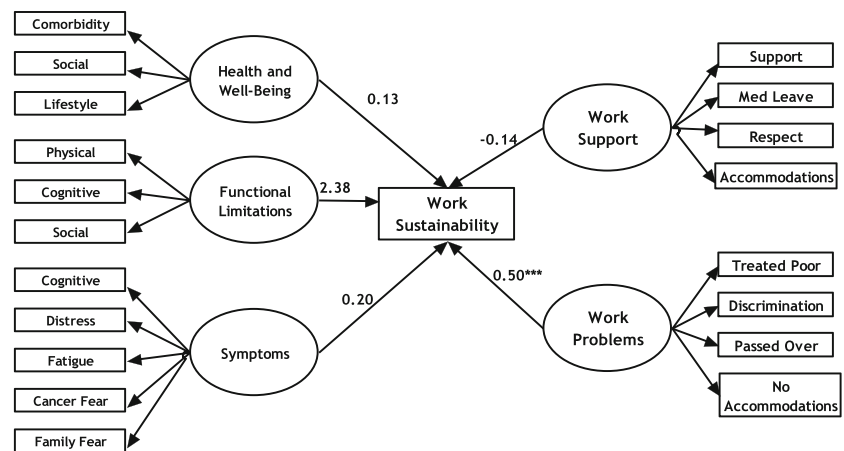
[22]. Qualitative studies of those working with chronic illnesses also report that flexibility in quantity of work hours [23], control over workday pacing, adjustment of physical demands, and reduction in work-related travel requirements [24] facilitate return to work and work sustainability. A systematic review further highlights the relationship among cancer survivors’ experiences of employer accommodation and flexible employment arrangements and employment status [25]. Qualitative [23, 24, 26–28] and quantitative studies [8, 29–32] have also reported evidence for the positive role of social support in the workplace as it relates to various work outcomes.

However, in the present study, workplace support and positive workplace accommodations were not independently related to either work outcome. Rather, workplace problems, including reports of discrimination, poor treatment, being passed over, and an unwillingness to make accommodations, were significantly related to both perceived work ability and work sustainability. Poor workplace support has also been associated with lower work ability in cancer survivors [33].

The finding that functional impairment is a stronger predictor of work ability than health and well-being or symptoms highlights the importance of assessing employed cancer survivors’ functional abilities in relation to work demands. Such assessment may identify whether there is an opportunity to improve observed functional limitations, which may increase the likelihood that a cancer survivor can meet certain demands of the job. This differs from exclusively considering symptoms and health problems when attempting to improve work outcomes. Recent research on the association between physical training and return to work in cancer survivors with different cancer types (breast, ovarian, Hodgkin’s and non-Hodgkin’s lymphoma, and colon) and treatment histories provides additional support for targeting physical function [34]. Once at work, physical training was effective in resuming pre-diagnosis levels of hours worked. The current findings emphasize the need to address both function (physical, cognitive, and interpersonal) and workplace problems

**Fig. 2** Factors related to work sustainability. Note: CFI=0.96; TLI=0.95; RMSEA=0.027. \*\*\**p*<0.001

Factors Related to Work Sustainability



Note: CFI = 0.96; TLI = 0.95; RMSEA = 0.027. \*\*\* *p* < 0.001

to reduce friction in the workplace. The willingness on the part of the employer to provide realistic accommodations that both the employer and employee can agree upon may reduce the friction between cancer survivor and employer.

The data used for this investigation were collected for a very different reason (survey of many aspects of cancer survivorship) than that reported in this paper [13]. The development of constructs using existing items from the LiveStrong Survey is not as preferable as using reliable and valid measures that are available in the scientific literature. It is possible that the use of well-established measures may have led to different results. However, the current findings are consistent with research in the occupational health and disability literature. In addition, given the method of data collection, we were unable to independently confirm specific diagnoses, disease severity, and treatment regimen and therefore cannot definitively conclude that these factors are not also related to the work outcomes of interest, only that self-report of these variables were not related to these work outcomes at 3 years posttreatment.

In addition, the survey items related to workplace problems and support asked participants to “check all [workplace problems] that apply” rather than marking “yes” or “no” for each of the eight items. Therefore, while unlikely, it is possible that participants who experienced certain negative work outcomes (such as losing job because of cancer) did not check all items related to type of workplace problem and were misclassified as not having the problem.

As with many past studies in the area of cancer survivorship, the sample was primarily Caucasian with relatively high income and education, limiting the generalizability of the findings to other groups [10, 35, 36]. In addition, job type was not available as it was not collected in the survey. Education level of the sample suggests that it likely represents white-collar knowledge workers more than manual laborers. However, this limitation must be considered in light of a recent population-based study indicating that cancer survivors are more likely at this point in time to be white-collar workers than noncancer survivors in the USA [37].

Almost the entire sample (96.9 %) reported having health insurance. Although this rate is exceptionally high, it is consistent with a population-based survey that found that cancer survivors had a higher rate of health insurance than those without a history of cancer (93.2 vs. 84.8 %) [38]. Notably, three quarters of participants in this sample reported obtaining insurance from their employers, demonstrating the well-known entanglement of employment with health insurance in the USA, which is an important quality-of-life concern for cancer survivors [39].

This study analyzed cross-sectional data. Although the path analysis can illustrate the direct links of independent variables and work outcomes, it can only indicate associations between variables rather than determining the direction of the causal pathway of these variables. Furthermore, certain baseline characteristics are unknown, such as employer factors (e.g., size, industry, and availability of benefits), the quality of the work

environment prior to diagnosis, the employee’s baseline work characteristics (e.g., job type, skill level, and productivity), or the presence of specific work problems before cancer diagnosis. Therefore several alternative explanations of the findings are plausible. For example, we suggest that lack of accommodations may lead workers to leave their jobs after cancer diagnosis. However, it is possible that “better” workers are more likely to work for “better” employers, such as large companies that provide more generous benefits, quality work climate, and accommodations. It is also possible that employers are more willing to develop accommodations for better workers. In fact, it is likely that feedback loops among these relationships exist; however, the present study cannot confirm this.

Despite these limitations, the results indicate that functional status in physical, cognitive, and social areas, and workplace problems (being treated poorly, discrimination, being passed over, and lack of accommodations) are associated with perceived work ability, and workplace problems are associated with work sustainability. The potential clinical implications of these findings are clear. When the goals are to return to or to successfully remain in the workplace, there is a need to query the cancer survivor regarding specific aspects of work. The systematic evaluation of function (physical, cognitive, emotional, and interpersonal) in relation to the actual demands at work and perceived ability to meet work demands can be instrumental in facilitating the survivor’s sense of ability to work. However, it is also critical that clinicians consider the survivor’s work environment. The cancer survivor’s view of the workplace including the need for realistic accommodations is also related to the likelihood of remaining at work.

Many cancer patients are remaining at work during treatment or returning to work soon afterward. Attention to functional limitations relative to work demands and negative features of the work environment, particularly in those who desire or need to work, is warranted. Simple communication strategies may be all that are needed [40, 41]. However, there are also several approaches to improve the functional outcomes of employees with a range of health problems [42], as well as the selection and implementation of work accommodation [43] found in the area of work disability prevention. A recent cancer survivorship and work model [44], which synthesizes two previous models [12, 25], also advocates for the development of interventions to educate cancer survivors’ employers. The current findings support the development of such approaches in cancer survivors and their workplaces.

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**Conflict of interest** The authors have no conflicts of interest to disclose.

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## Appendix

### Appendix 1 LiveStrong survey items

Domain	Construct	Items in original measurement model	Items in final analysis	
Symptoms	Cognitive	I have had difficulty doing activities that require concentration	Same as original	
		I have been bothered by having a short attention span		
		I have had trouble remembering things		
		I have been bothered by forgetting what I started to do		
		I have had “chemo brain”		
	Distress	I have felt blue or depressed		Same as original
		I have been bothered by mood swings		
		I have felt anxious		
		I have felt a constant state of worry, tension, or stress		
		I have been told by a doctor that I am suffering from depression		
Fatigue	I have dates or events that make me think more about cancer. (For example, the date you were diagnosed or the date treatment ended)	Same as original		
	I feel blue or depressed each time these dates or events occur			
Cancer fear	I have not had the energy to do the things I wanted to do	Same as original		
	I have felt tired a lot			
Cancer fear for family	I have had trouble getting the rest that I need	Same as original		
	I have been preoccupied with concerns about cancer			
	I have worried about dying from cancer			
Health and well-being	Comorbidity	I have worried about cancer coming back	Same as original	
		I have worried about whether my family members should have genetic tests for cancer		
		I have worried that my family members were at risk of getting cancer		
		I have worried about whether my family members might have cancer-causing genes		
		I have had trouble with my heart		
		I have been told by a doctor that I have heart problems		
		I have had trouble breathing		
		I have been told by a doctor that I have damage to my lungs		
		I have had trouble hearing		
		I have been told by a doctor that I had problems with my hearing		
		I have had trouble seeing		
		I have been told by a doctor that I have problems with my vision or sight		
		I have had problems with my mouth		
		I have had problems with my teeth		
		I have been told by a doctor I have problems with my mouth		
		I have been told by a doctor I have problems with my teeth		
		I have had swelling in my legs, arms, and other areas of my body		
		I have been told by a doctor that I have lymphedema		
		I have had problems swallowing naturally and easily		
I have had problems eating solid foods				
I have lost feeling or had strange sensations in my hands or feet				
I have experienced dizziness, such as when getting up from a chair				
I have been told by a doctor that I have neuropathy				
I have been told by a doctor I have a thyroid condition				
I have not been able to control when I urinate				
I urinate more frequently than I used to				
I have been told by a doctor that I have urinary incontinence				

## Appendix 1 (continued)

Domain	Construct	Items in original measurement model	Items in final analysis
	Health behaviors	I have had trouble sleeping for several nights in a row I have led a more healthy lifestyle  I have participated in regular physical activity  I have changed my diet to eat more healthy foods I have tried to take care of my health I have attended all regular medical appointments I have received screenings for secondary cancers I am up to date on all recommended cancer screenings	I have led a more healthy lifestyle I have participated in regular physical activity I have changed my diet to eat more healthy foods I have tried to take care of my health
	Social well-being	I have been reluctant to start new relationships I have not wanted to participate in social gatherings I have not wanted to be around my friends I have been reluctant to meet new people I do not go to events that I used to enjoy	Same as original
Function	Physical	In the last 7 days, my activities have been limited by this (medical) concern... (a lot/a little/not at all)	Same as original
	Cognitive	In the last 7 days, my activities have been limited by this (cognitive) concern... (a lot/a little/not at all)	Same as original
	Emotional	In the last 7 days, my activities have been limited by this (emotional) concern... (a lot/a little/not at all)	Same as original
	Interpersonal	In the last 7 days, my activities have been limited by this (social) concern... (a lot/a little/not at all)	Same as original
Work	Work environment/ work support	I had co-workers support me at work because of my cancer diagnosis (for example, they donated sick time to you)	I had co-workers support me at work because of my cancer diagnosis (for example, they donated sick time to you)
	(Originally grouped together. Final model divided into work support vs. workplace problems)	I received medical leave from my employers for treatment and recovery  I have earned increased respect at work  My employer made reasonable changes or accommodations in my job to help me I have been treated poorly on the job I have experienced employment discrimination I have felt that my employer would not make reasonable changes or accommodations in my job to help me I was passed over for a promotion	I received medical leave from my employers for treatment and recovery  I have earned increased respect at work  My employer made reasonable changes or accommodations in my job to help me
	Workplace problems	(Originally grouped together with workplace support items)	I have been treated poorly on the job I have experienced employment discrimination I have felt that my employer would not make reasonable changes or accommodations in my job to help me I was passed over for a promotion



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