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Abstract

Background: Partners of young breast cancer survivors (BCS) are at increased risk for deficits in quality of life (QoL). To intervene effectively, it is important to understand how the breast cancer experience impacts partners. The purpose of this study was to compare QoL between partners of young BCS and partners of healthy acquaintance controls.

Methods: Partners of young BCS (3-8 years post treatment and ≤ 45 years old at diagnosis) and partners of age-matched healthy acquaintance controls completed questionnaires on overall, physical (physical function, sexual difficulty), social (personal resources, sexual enjoyment, marital satisfaction, partner social support, social constraints, parenting satisfaction), psychological (depressive symptoms), and spiritual (behaviors, beliefs, and activities) QoL. Analyses included descriptive statistics and one-way ANOVA to compare partner groups on all study variables.

Results: Although partners of young BCS ($n=227$) reported fewer social constraints ($p<.001$), they reported lower overall QoL ($p<.001$), fewer personal resources ($p<.001$), more sexual difficulty ($p=.019$), less sexual enjoyment ($p=.002$), less marital satisfaction ($p=.019$), more depressive symptoms ($p=.024$), and fewer spiritual behaviors ($p<.001$), beliefs ($p=.001$) and activities ($p=.003$) compared to partners of healthy acquaintance controls ($n=170$). Additional analysis showed that perceptions that the relationship changed for the better since cancer, social constraints, partner social support, and depression predicted marital satisfaction among partners of young BCS.

Conclusions: Partners of young BCS are at risk for poorer overall, physical, social, psychological, and spiritual QoL compared to partners of healthy women. Interventions

41 targeting QoL domains may enable partners to effectively support their partner and
42 improve their QoL.

43

44 *Keywords:* breast cancer, partners, acquaintance control, quality of life

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46

Introduction

47 Approximately 3.4 million women in the United States are breast cancer survivors
48 (BCS) [1]. About 89% of all women diagnosed can expect to survive more than 5 years
49 post-treatment [2]. Although women are surviving longer, BCS are at risk for poor
50 physical, social, psychological, and spiritual quality of life (QoL) years after the cancer
51 experience [3].

52 Many BCS have partners who also experience deficits in QoL years after the cancer
53 experience [4]. Although limited, research has demonstrated that partners of BCS
54 diagnosed before age 50 are disproportionately affected by cancer, as they report more
55 QoL deficits than partners of BCS diagnosed at a later age [4]. Longitudinal studies
56 have found that partners of young BCS have worse marital functioning, more
57 posttraumatic stress hyperarousal, and worse overall QoL than partners of older BCS
58 [5]. However However, predictors of QOL are likely to vary greatly between partners of
59 younger BCS and partners of older BCS, given that life circumstances and demands
60 vary. Understanding ways in which the breast cancer experience affects young
61 survivors' partners' QoL requires comparisons between partners of BCS and partners of
62 healthy women. To date, the literature comparing partners of young BCS to partners of
63 age-matched controls is lacking.

64 The aim of the current study was to compare partners of young BCS to partners of
65 healthy acquaintance controls on long-term QoL (overall, physical, social, psychological,
66 and spiritual). The knowledge gained from this study will help clinicians who strive to
67 meet the needs of younger BCS and their partners.

68 **Theoretical Framework**

69 The City of Hope Quality of Life Model, which guided the parent study [3], posits
70 that four domains of well-being contribute to a person's overall QoL [6,7] [3,8,4]. The
71 four domains are physical wellbeing (maintaining function and independence), social
72 wellbeing (relationships with others), psychological wellbeing (mental health), and
73 spiritual wellbeing (existential and religious dimensions) [7]. Together, these domains
74 predict overall QoL.

75 **Methods**

76 **Participants**

77 This project was part of a larger study [1] examining QoL among BCS diagnosed
78 3-8 years prior. The purpose of the parent study was to compare long-term QoL in
79 younger BCS (women diagnosed with breast cancer at age 45 years or younger) to
80 older BCS (women diagnosed with breast cancer at ages 55-70) and age-matched
81 healthy acquaintance controls (women within 5 years of survivors' age who had not
82 been diagnosed with breast cancer). Briefly, Eastern Cooperative Oncology Group-
83 American College of Radiology Imaging Network (ECOG-ACRIN) generated a list of
84 eligible BCS survivors to whom a study brochure was mailed. One week after the
85 mailing, research assistants called BCS to determine interest. If BCS expressed
86 interest, research assistants mailed informed consent to BCS, along with a postage-

87 paid return envelope. Once signed consents were received, questionnaires were mailed
88 to BCS. Age-matched healthy acquaintance controls were nominated by enrolled BCS.
89 All other procedures for consenting and collecting data from healthy acquaintance
90 controls were the same. Data were collected 2004-2010. Additional details about the
91 parent study are reported elsewhere [3].

92 Analyses for the current study focused on partners of young BCS and partners of
93 healthy acquaintance controls. A list of young BCS and healthy acquaintance controls,
94 who reported that they lived with a partner or spouse, was extracted from the larger
95 dataset. Using the same recruitment procedures, research assistants invited partners to
96 participate in the study. The partners of young BCS and age-matched healthy
97 acquaintance controls did not have to be of the same age. Rather, partners had to verify
98 that they were married or in a serious committed relationship with the survivor or healthy
99 acquaintance control. If partners expressed interest and consented, research assistants
100 mailed partners questionnaires to complete. Of the 417 married/partnered young breast
101 cancer survivors, 227 had partners who were willing to participate (54.4% response
102 rate). Of the 324 healthy acquaintance controls who were married/partnered, 170 had
103 partners who participated (52.4% response rate).

104 **Measures**

105 Socio-demographic information, including current age, education, race, ethnicity,
106 and religious affiliation, was collected from partners of young BCS and partners of
107 healthy acquaintance controls. Partners of young BCS were also asked if their
108 relationship since cancer had changed for the better, gotten worse, or stayed the same.
109 Gender was not recorded for either partner group. The City of Hope Quality of Life

110 Model [6,7], provided structure for assessing each QoL domain. QoL domains were
111 measured with the scales described below. Note, for scales that asked partners of
112 young BCS to reflect on the breast cancer experience, partners of healthy controls were
113 asked to reflect on a “stressful event in the last 5 years.” If completed in order, partners
114 could complete the entire questionnaire within 45 minutes. Measures were grouped and
115 ordered by physical, psychological, social, spiritual, and overall QoL. Partners were
116 encouraged to take breaks between each QoL section.

117 **Overall quality of life.** Overall QoL was measured by the *Index of Well-Being*
118 (IWB) [9]. The 7-item measure asked how the participant felt about his/her life in
119 general. Mean values were calculated with higher scores indicating better QoL
120 ($\alpha=0.92$).

121 **Physical QoL.** Two aspects of physical functioning were assessed. First, general
122 physical functioning was measured with the 10-item Medical Outcomes Study *Physical*
123 *Functioning Scale* (PF-10) [10]. The scores are summed and scored positively ($\alpha=.92$)
124 [10]. Second, sexual difficulty, the physical component of sexual functioning, was
125 assessed with the 3-item *Sexual Difficulty* subscale, a measure adapted from a
126 previously validated scale [11] for use in the parent study [3]. The questions asked
127 about the participant’s difficulty becoming aroused and having an orgasm ($\alpha=.85$). The
128 three items were summed with a higher score indicating more difficulty.

129 **Social QoL.** This domain consisted of personal resources, sexual enjoyment,
130 marital satisfaction, partner social support, social constraints, and parenting satisfaction.
131 The 15-item *Personal Resource Questionnaire* measured support from other people
132 such as friends, co-workers, relatives, and others in the participant’s social network [12].

133 The sum of the 15 items was taken with a higher score indicating greater support from
134 personal resources ($\alpha=.91$). Sexual enjoyment, the social component of sexual
135 functioning, was measured with a modified 4-item *Sexual Enjoyment* subscale adapted
136 from a previously validated measure [11]. The subscale asked participants about
137 interest in sexual activities, ability to relax and enjoy sexual activities, satisfaction with
138 frequency of sexual activities, and frequency of sexual thoughts or fantasies. This
139 checklist was summed with higher scores relating to more enjoyment and satisfaction.

140 Marital satisfaction was measured with the previously validated 15-item
141 *Evaluating and Nurturing Relationship Issues, Communication, and Happiness Marital*
142 *Satisfaction Scale (ENRICH MSS)*. The items were summed with higher scores
143 indicating greater marital satisfaction ($\alpha=.91$) [13]. Perceived social support from the
144 partner was measured with the 7-item *Northouse Social Support Scale*, which was
145 developed and validated in cancer populations [14]. Higher scores indicated greater
146 social support ($\alpha=.84$). Social constraints were measured using 14 items from the
147 *Lepore Social Constraints Scale*, which has been validated in prior oncology
148 populations [15]. The scale asked participants how often they perceived behaviors that
149 limited discussions of cancer or a serious life event (i.e. avoidance, denial, problem
150 minimization) from their partner in the last four weeks ($\alpha=.89$). Scores were the sum of
151 all items with higher scores indicating more social constraints. The *Parenting*
152 *Satisfaction Questionnaire* asked participants to describe satisfaction with their
153 parenting abilities. The sum of the 5 items was calculated with higher scores indicating
154 more parenting satisfaction ($\alpha=.84$).

178 significant group differences on demographic variables. Table 1 provides a full list of
179 demographics and group differences.

180 **QoL Differences between Groups**

181 Because groups were not significantly different on any demographic variable, no
182 variables were entered into analyses as covariates. Table 2 reports the mean
183 differences and associated Cohen's d effect sizes between partner groups for all scales.
184 Compared to their counterparts, partners of BCS generally reported worse functioning.
185 In each QoL domain, significant differences between partners of young BCS and
186 partners of healthy acquaintance controls were found. All significant group differences
187 were small in effect size using the standard for reporting Cohen's d.

188 *Overall well-being.* Compared to partners of healthy acquaintance controls,
189 partners of young BCS reported lower overall QoL ($p < .001$). *Physical well-being.* No
190 group differences were found on general physical functioning. However, partners of
191 young BCS had more sexual difficulty ($p = .019$). *Social well-being.* Partners of young
192 BCS had less sexual enjoyment ($p = .002$), fewer personal resources ($p < .001$), lower
193 marital satisfaction ($p = .019$), and fewer social constraints ($p < .001$) compared to
194 partners of healthy acquaintance controls. No other significant differences in social well-
195 being were found. *Psychological well-being.* Compared to partners of healthy
196 acquaintance controls, partners of young BCS reported poorer psychological well-being,
197 as evidenced by more depressive symptoms ($p = .024$). *Spiritual well-being.* Finally,
198 partners of young BCS reported fewer spiritual behaviors ($p < .001$), beliefs ($p = .001$), and
199 activities ($p = .003$).

200 **Marital Satisfaction**

201 Because there were group differences on marital satisfaction and other
202 relationship-focused variables, we conducted additional analyses to explore predictors
203 of the marital relationship. Analyzing partners of young BCS and partners of healthy
204 controls separately, we regressed marital satisfaction on all demographic (age,
205 education, race, ethnicity, religious affiliation), physical (physical functioning and sexual
206 functioning difficulty), psychological (depressive symptoms), spiritual (beliefs, behaviors,
207 and activities), and social (sexual functioning enjoyment (social support and social
208 constraints). Variables were removed from the model using a backward selection
209 method until the final models were reached.

210 For partners of young BCS, marital satisfaction was predicted ($r^2=.32$ $F=24.06$
211 [$p<.001$]) by the partner responding that the marital relationship changed for the better
212 since cancer ($\beta=-.15$; $p=.018$), lower depression scores ($\beta=-.25$, $p<.001$), fewer social
213 constraints ($\beta=-.16$, $p=.02$), and greater social support from the survivor ($\beta=.24$,
214 $p<.001$). The regression analysis is presented in Table 3.

215 For partners of healthy controls, marital satisfaction was predicted ($r^2=.28$ $F=32$
216 [$p<.001$]) by low sexual functioning difficulty ($\beta=-.22$, $p<.001$), and greater social support
217 from the partner ($\beta=.47$, $p<.001$). The regression analysis is presented in Table 4.

218 Discussion

219 This study was the first to explore QoL (physical, psychological, spiritual, social,
220 and overall) differences between partners of young, long-term breast cancer survivors
221 and partners of healthy acquaintance controls. Partners of young survivors reported
222 worse functioning in at least some aspect of every QoL domain. Partners of young
223 breast cancer survivors reported worse marital satisfaction than partners of healthy

224 controls. Furthermore, differences in the marital relationship and what contributed to
225 marital satisfaction for each group were explored.

226 **Overall QoL**

227 This study was the first to explore QoL (overall, physical, social, psychological,
228 and spiritual) differences between partners of young, long-term BCS and partners of
229 healthy acquaintance controls. We found that partners of young BCS reported worse
230 functioning in at least some aspect of each QoL domain. Additionally, partners of young
231 BCS reported worse marital satisfaction than partners of healthy controls. Among
232 partners of young BCS, social support from the survivor, social constraints, perceptions
233 that the relationship changed for the better since cancer, and depression contributed to
234 marital satisfaction.

235 **Overall QoL**

236 Partners of young BCS reported worse overall QoL than partners of healthy
237 acquaintance controls. QoL is, by definition, associated with optimal functioning in all
238 domains [19,6,7]. Given the lower QoL scores in each domain, it is not surprising that
239 partners of BCS also reported worse overall QoL.

240 **Physical QoL.**

241 While partners of young BCS reported more sexual difficulty, no other physical
242 functioning differences were reported, which is in line with previous work [20]. Only one
243 other study examined physical functioning in partners at one year post-diagnosis. Shor
244 and colleagues found lower overall physical functioning among BCS partners compared
245 to healthy controls [21]. In that study, many of the BCS were still in active treatment, a
246 very stressful time for BCS and partners alike, which may have contributed to their

247 poorer physical functioning. With regards to sexual difficulty, previous studies have
248 identified erectile dysfunction in up to two-thirds of partners of BCS [22]. Sexual
249 problems have been associated with depressive symptoms, which many partners of
250 young BCS commonly report [23].

251 **Psychological QoL.**

252 Partners of young BCS reported more depressive symptoms than partners of
253 healthy acquaintance controls [24]. Other studies have shown that nearly a third of
254 partners expressed depressive symptoms within the first year after the survivor's breast
255 cancer diagnosis [19,20]. Many studies across cultures also have reported higher
256 depressive symptoms in partners of BCS compared to partners of healthy women
257 [25,26,21] and similar levels of depressive symptoms as the BCS themselves [27].

258 **Social QoL.**

259 Partners of young BCS reported less sexual enjoyment, less interest in sexual
260 activities, less satisfaction with the frequency of sexual activity, and less frequently
261 having sexual thoughts or fantasies than partners of healthy controls. Lower sexual
262 satisfaction among partners has been associated with lower overall sexual functioning,
263 arousal, and sexual satisfaction among BCS [22].

264 Partners of young BCS expressed having fewer personal resources, or less
265 support in their social network, which is common among partners and caregivers during
266 and immediately following cancer treatment. This perceived lack of a supportive network
267 is attributed to diminished social, leisure, and relaxation activities because of caregiving
268 demands [28]. Results of the present study extend the current literature by showing this
269 isolation may persist years after treatment.

270 Finally, partners of young BCS scored lower for marital satisfaction than AP.
271 Because there were group differences in marital satisfaction and relationship-focused
272 variables, we explored group differences in the marital relationship further.

273 **Spiritual QoL.**

274 Partners of young BCS reported fewer spiritual behaviors, spiritual beliefs, and
275 spiritual activities. These findings are consistent with previous studies that suggested
276 spiritual needs are common among caregivers of patients with cancer [5,29]. Caring for
277 a loved one with cancer can impact how caregivers view themselves, others, and the
278 world, at times resulting in spiritual and existential distress (e.g., a loss of meaning and
279 purpose in life) [30,31]. Low levels of spiritual well-being in cancer caregivers have been
280 associated with a range of negative mental health outcomes [32-34]. It is important to
281 note that these previous studies primarily examined caregivers of patients actively in
282 treatment and/or close to their diagnosis. Our current findings suggest spiritual concerns
283 may persist for many years. More research is needed to replicate and further
284 characterize these findings.

285 **Marital satisfaction.**

286 Notably, partners of young BCS reported worse marital satisfaction than partners
287 of healthy acquaintance controls. However, in the parent study, the survivors and
288 healthy acquaintance controls to whom these partners were matched did not differ on
289 marital satisfaction [3].

290 Marital satisfaction for both partners of young BCS and partners of healthy
291 acquaintance controls was predicted by social support from the spouse/partner. For
292 partners of healthy of acquaintance controls, less sexual functioning difficulty uniquely

293 predicted marital satisfaction. For partners of young BCS, additional unique factors
294 including both personal (e.g., depression) and interpersonal factors (e.g., relationship
295 changed for the better since cancer and fewer social constraints) contributed to marital
296 satisfaction. Our results complement previous work. In one study, 74.6% of partners
297 reported that cancer had changed their relationship with 8.6% indicating the relationship
298 had only changed for the worse [35]. In another study, Segrin and colleagues found that
299 partners of women recently diagnosed with breast cancer, relationship satisfaction was
300 associated with better mental health [36]; specifically, low depression scores in partners
301 of young BCS were associated with higher marital satisfaction. However, that team also
302 found that distress levels subsided over time [36]. Partners in the current study were an
303 average of 5.5 years out from their spouse/partner's breast cancer diagnosis, and many
304 still reported clinically significant depression [4] and marital dissatisfaction.

305 **Strengths and Limitations**

306 Despite the many strengths associated with this large data set, there were also
307 limitations. First, data were cross-sectional from a non-experimental cohort study, and
308 thus this limits the ability to determine causal relationships between cancer experience
309 and QoL. Second, because the data were cross-sectional 3-8 years after the cancer
310 survivor's diagnosis, any potential differences in partner groups prior to the diagnosis
311 could not be captured. This may be why effect sizes were small between groups. Third,
312 partner groups and their female partners [3] were primarily Caucasian and more highly
313 educated than the average American, which may make them less representative of the
314 general population. Fourth, income, which may contribute to QoL, was not requested
315 from partners. Finally, partners of healthy acquaintance controls were asked to reflect

316 on a “stressful life event” for several of the scales, including social constraints and social
317 support scales, where partners of young long-term BCS were asked to reflect
318 specifically on the breast cancer diagnosis. Without knowing the type of event partners
319 of healthy acquaintance controls used for their reflection, it is difficult to compare the
320 severity of experiences.

321 **Conclusions**

322 Partners of young BCS and partners of healthy acquaintance controls differed
323 greatly, with partners of young BCS fairing worse in overall, physical (sexual difficulty),
324 social (personal resources, sexual enjoyment, marital satisfaction, and social
325 constraints), psychological (depression), and spiritual (behaviors, beliefs, and activities)
326 QoL. Additionally, marital satisfaction for partners of young BCS was predicted by both
327 personal and interpersonal factors. Notably, these QoL deficits were observed even
328 though survivors were an average of 5.5 years out from diagnosis, which speaks to the
329 long-term effects of cancer on partners.

330 Healthcare providers should be aware of these effects and include partners in
331 their assessment of QoL deficits, including marital satisfaction. Further research is
332 needed on intervention strategies for partners of BCS. Specifically, tailoring programs to
333 meet partner needs may be especially beneficial [37], as partners express diverse
334 needs [38,39] that differ during treatment (i.e. finding parking, making appointments,
335 and dealing with insurance questions) and following treatment (i.e. handling fear of
336 recurrence and depression) [40]. Three approaches may be useful for supporting
337 partners of BCS.

338 First, psychoeducational support is one of the most widely used therapeutic
339 approaches for partners of cancer survivors [41]. These interventions usually combine
340 education about cancer treatment and symptoms [42], the lasting effects of cancer on
341 the partner, social support, intimacy [43], communication, sexuality [44] and more [45].
342 Studies of psychoeducational support have shown a small to medium effect size [46].
343 Because partners reported such wide-ranging long-term problems, a psychoeducational
344 support intervention could be tailored to meet their individualized needs.

345 Second, acceptance and commitment therapy (ACT) is a behavioral intervention
346 that has been used in partners of cancer patients. ACT incorporates mindfulness- and
347 acceptance-based processes to reduce interference of difficult internal experiences
348 (e.g., fear, depressive symptoms) with meaningful activities and QoL that has been
349 used in partners of cancer patients [47]. ACT can help partners clarify and commit to
350 their personal values and be more self-compassionate when experiencing negative
351 thoughts and feelings [48]. Because a large portion of partners in this study reported
352 QoL deficits, this may be an especially beneficial approach to alleviate factors (i.e.
353 depressive symptoms) contributing to those deficits.

354 Third, meaning-centered psychotherapy has recently been adapted to address
355 the spiritual and existential concerns of cancer caregivers [49]. This approach was
356 originally developed for patients with advanced cancer [50], but it has demonstrated
357 feasibility and acceptability as a web-based psychotherapy for caregivers [51]. Because
358 partners of BCS reported low levels of spiritual behaviors, beliefs, and activities, they
359 may be receptive to an intervention designed to help with existential issues. Using

360 interventions that target partners' specific problems will be useful in meeting their
361 diverse needs.

362 **List of Abbreviations**

363
364 ACT: Acceptance and Commitment Therapy

365 BCS: Breast cancer survivors

366 ECOG-ACRIN: Eastern Cooperative Oncology Group-American College of Radiology
367 Imaging Network

368 QoL: Quality of life

369 SPSS: Statistical Package for Social Sciences

370 **Declarations**

371 **Ethics Approval.**

372 This study was approved by the internal review board at the sponsoring
373 institution (Indiana University) and all 97 ECOG-ACRIN sites. Participants provided
374 written consent and were told they could end their study participation at any time.

375 **Availability of Data and Materials.**

376 The datasets used and/or analysed during the current study are available from
377 the corresponding author on reasonable request.

378 **Competing Interests.**

379 The authors declare that they have no competing interests.

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Table 1: Demographic information for partners of young breast cancer survivors and partners of healthy acquaintance controls.

Variable	YP (<i>n</i> = 227)	AP (<i>n</i> = 170)	T-test (<i>p</i>) between YP and AP
Race, Number (percentage)			0.404
Caucasian	210 (92.5)	155 (91.2)	
Black or African American	7 (3.1)	6 (3.5)	
Asian	2 (.9)	1 (0.6)	
Other	8 (3.5)	8 (4.7)	
Education (years), mean (<i>SD</i>)	14.88 (2.552)	15.32 (2.85)	0.113
Highest Level of Education Completed	N (%) YP	N (%) OP	
Graduate or Professional Degree	38 (16.7)	39 (22.9)	
Some Graduate School	10 (4.4)	5 (2.9)	
Bachelors Degree	58 (25.6)	50 (29.4)	
Associates Degree	21 (9.3)	10 (5.9)	
Some College	31 (13.7)	27 (15.9)	

Technical or Trade School	23 (10.1)	9 (5.3)	
High School Graduate/GED	40 (17.6)	25 (14.7)	
Some High School	5 (2.2)	4 (2.4)	
Elementary School or Less	0	1 (0.6)	
Missing	1 (.4)	0	
Religious Affiliation, Number (percentage)			0.225
Christian	189 (83.6)	144 (84.7)	
Other	11 (9.8)	5 (2.94)	
No religious affiliation	26 (11.5)	21 (12.35)	
Missing	1 (.44)		
Current age years, mean (<i>SD</i>)	48.04 (7.181)	47.36 (8.625)	0.392

Table 2: Differences between Partners of Young Breast Cancer Survivors and Partners of Healthy Acquaintance Controls

Measure	Mean (<i>SD</i>), Range Partners of young BCS	Mean (<i>SD</i>), Range Partners of Healthy Acquaintance Controls	ANOVA ^a (<i>p</i>) between Partner Groups	Cohen's <i>d</i>
Physical				
Physical Functioning Scale- 10	28.117 (3.498), 11-30	28.45 (3.15), 12-30	-.987 (.324)	na
Sexual Functioning Difficulty	5.652 (3.033), 3-15	4.98 (2.54), 3-14	2.41 (.016)	0.24
Social				
Sexual Functioning Total	26.642 (5.073), 9-35	28.21 (4.34), 13-35	-3.3 (.001)	-0.17
Sexual Functioning Enjoyment	14.297 (2.818), 6-20	15.18 (2.75), 8-20	-3.13 (.002)	-0.32
ENRICH Marital Satisfaction	51.107 (12.941), 11-87.02	54.12 (12.14), 13.3-84.4	-2.36 (.019)	-0.24
Northouse Social Support Scale	26.608 (5.241), 8-35	27.33 (4.75), 14-35	-1.41 (.160)	na
Lepore Social Constraints Scale	20.333 (6.336), 14-40	23.38 (7.86), 14-49	-4.14 (<.001)	-0.43
Parenting Satisfaction	20.11 (3.66), 7-25	20.58 (3.33), 10-25	-1.24 (.216)	na
Personal Resource Questionnaire	79.222 (14.809), 20-105	85.13 (11.51), 47-105	-4.47 (<.001)	-0.45
Psychological				
Centers for Epidemiologic Studies-Depression Scale	8.795 (8.486), 0-42	7.01 (6.74), 0-33	2.34 (.020)	0.23
Spiritual				
Reed Spiritual Perspectives Scale	3.861 (1.396), 1-6	4.37 (1.39), 1-6	-3.6 (<.001)	-0.18
Beliefs	4.023 (1.466), 1-6	4.54 (1.37), 1-6	-3.53 (<.001)	-0.36
Activities	2.874 (1.423), 1-6	3.32 (1.49), 1-6	-3.03 (.003)	-0.31

Behaviors	3.613 (1.462), 1-6	4.12 (1.55), 1-6	-3.32 (.001)	-0.34
Overall Wellbeing				
Index of Wellbeing	10.747 (2.359), 3.73-14.70	11.62 (1.91), 6.8- 14.7	-4.08 (<.001)	-0.41

Table 3. Regression Analysis for Marital Satisfaction in Partners of Young Breast Cancer Survivors.

	<i>B</i>	<i>SE B</i>	β
Social Support	.57	.17	.24 ^a
Depression	-.38	.10	-.25 ^a
Relationship Changed for the Better	-2.8	1.17	-.15 ^b
Social Constraints	-.33	.14	-.16 ^b
R ² =.32 (<i>ps</i> <.05); F(4, 211)= 24.06; <i>p</i> <.001			
^a <i>p</i> <.001			
^b <i>p</i> <.05			