

Prevalence of Cancer Loneliness within Couples Coping with Breast or Prostate Cancer and Associations with Physical and Mental Health

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BACKGROUND

- The risk of loneliness increases with age and with chronic illness. In people with cancer, social isolation and loneliness can adversely impact emotional well being and lead to poor symptom management, functional decline, and premature mortality.
- Breast and prostate cancer survivors (BCS, PCS) and care partners may not receive adequate social support that can lead each of them to experience loneliness that impacts their mental and physical health.
- An intimate relationship might lessen the risk of loneliness, but research within couples coping with cancer is scarce.

AIMS

- Describe the prevalence of cancer-related loneliness (CRL) among a subsample of BCS, PCS, and their care partners, participating in a clinical exercise trial.
- Determine the associations of CRL with mental and physical health among BCS, PCS, and their care partners.

METHODS

- Design:** Ancillary study to Exercising Together randomized controlled trial with three parallel exercise arms (2 experimental, 1 placebo control). Data collected at baseline, post-intervention (6 months), and six month follow up (12 months). Data presented from baseline only.
- Sample:** BCS and PCS diagnosed within the last 3 years and co-residing with an intimate partner. Ancillary study added mid-way through clinical trial. Participants were recruited through cancer registries and clinic-based recruitment.
- Outcomes:**
 - Cancer-Related Loneliness:** Cancer-related loneliness scale (1=never to 5=always)
 - Self-report health:** anxiety (PROMIS), depressive symptoms (CES-D), social and physical functioning (SF36 subscales)
- Analysis:** Prevalence and correlates in full subsample (n=44 BCS, n=43 BCS partners, n=75 PCS, n=73 PCS partners)
 - Spearman's rho correlation for associational data

Table 1. Demographics of BCS (n=44), BCS Partners (n=43), PCS (n=75), PCS Partners (n=73)				
Characteristic	BCS Mean (SD) or %	BCS Partners Mean (SD) or %	PCS Mean (SD) or %	PCS Partners Mean (SD) or %
Age (years)	59.3 (9.3)	62.2 (10.5)	69.4 (6.5)	67.0 (6.8)
Race (% white)	88.6%	86.1%	93.3%	89.0%
Ethnicity (% Hispanic)	2%	7%	0%	1%
Comorbidity Index	2.8 (0.9)	1.1 (1.5)	2.8 (1.1)	0.9 (1.8)
Time since diagnosis (mos.)	21.6 (7.7)	-	20.0 (9.2)	-
Time in relationship (years)	21.1 (12.6)	-	36.0 (13.7)	-
Residence (% rural)	23%	-	40%	-

96% of breast cancer survivors and 77% of prostate cancer survivors experience some level of cancer-related loneliness (CRL). Higher CRL is significantly associated with more anxiety and depressive symptoms and lower social functioning.



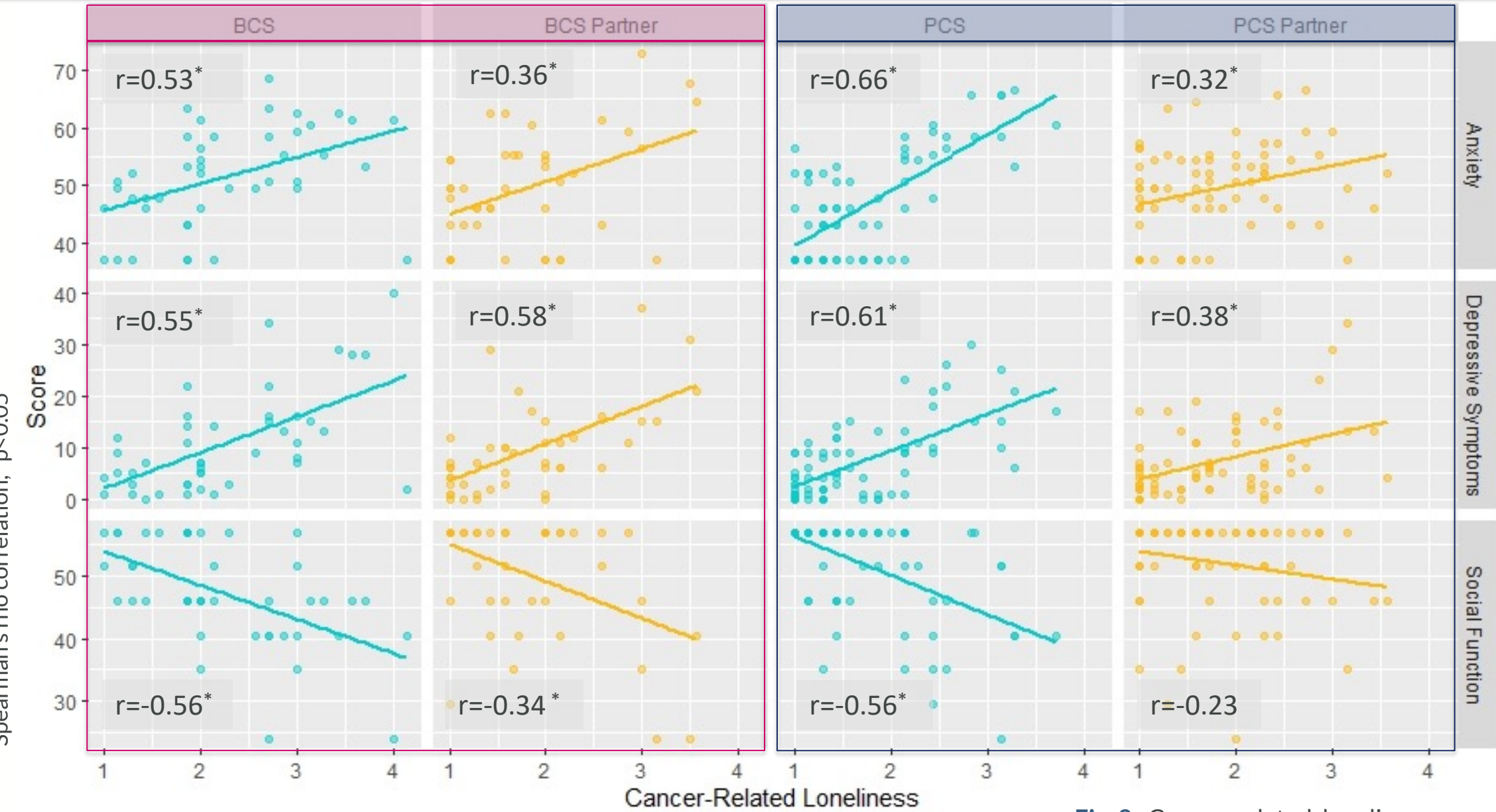
77% of care partners of BCS and PCS experience CRL related to their partners' cancer and is significantly associated with more anxiety and depressive symptoms



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Fig 1. Cancer-related loneliness scores associated with anxiety, depressive symptoms, and social functioning among subsample of BCS, PCS, and their partners. Spearman's rho correlation, *p<0.05



RESULTS

- CRL scores were significantly and inversely associated with age ($r=-0.30$) for PCS only.
- As CRL scores increased, self-report mental health and social functioning declined among BCS and PCS, respectively (all $p<0.01$) (Fig 1)
- As CRL scores increased, self-report mental health declined among care partners of BCS and PCS (all $p<0.01$), but worsening CRL was only associated with worsening social function in care partners of BCS ($p<0.045$) (Fig 1)
- CRL was inversely associated with physical functioning in BCS ($r=-0.41$, $p=0.02$), but not PCS.
- CRL was not associated with physical functioning in either care partner group.

CONCLUSIONS AND FUTURE DIRECTIONS

- Relationships may not offer enough social support to avoid feelings of loneliness associated with cancer
- Couples coping with cancer may benefit from tailored approaches to improve social support and mental health
- In another study of PCS (NCT03741335), after 6 months of group exercise, CRL decreased among men who reported experiencing CRL at least some of the time at baseline ($p=0.017$). A similar analysis is underway to look at the potential mitigating effect of exercise in our current subsample of BCS, PCS, and their care partners.

Fig 2. Cancer-related loneliness scores in subsample of BCS, PCS, and their partners. Some loneliness >1 as shown in blue bars

