



## Background

- Black prostate cancer survivors experience worse quality-of-life (QoL) compared to White men.
  - Informal (unpaid) caregivers can play a critical role in cancer survivorship.
  - However, informal caregivers often face caregiving-related burden that may influence care provided and thereby outcomes in the care recipients.
- Study Aim:** To evaluate associations of caregiver burden and involvement intensity with QoL of Black prostate cancer survivors receiving informal care

## Methods

- Sample:** prostate cancer survivors from the Detroit Research on Cancer Survivors (ROCS) study
- Informal caregivers are nominated to report on experiences providing care
- Exposures:** caregiver burden and involvement intensity, reported by informal caregivers at their enrollment
- Outcomes:** overall QoL, wellbeing subscales (emotional, social, functional, physical), and prostate cancer-specific QoL, measured in cancer survivors annually for up to 6 years
- Analysis:** linear mixed effects models featuring exposure-time interactions

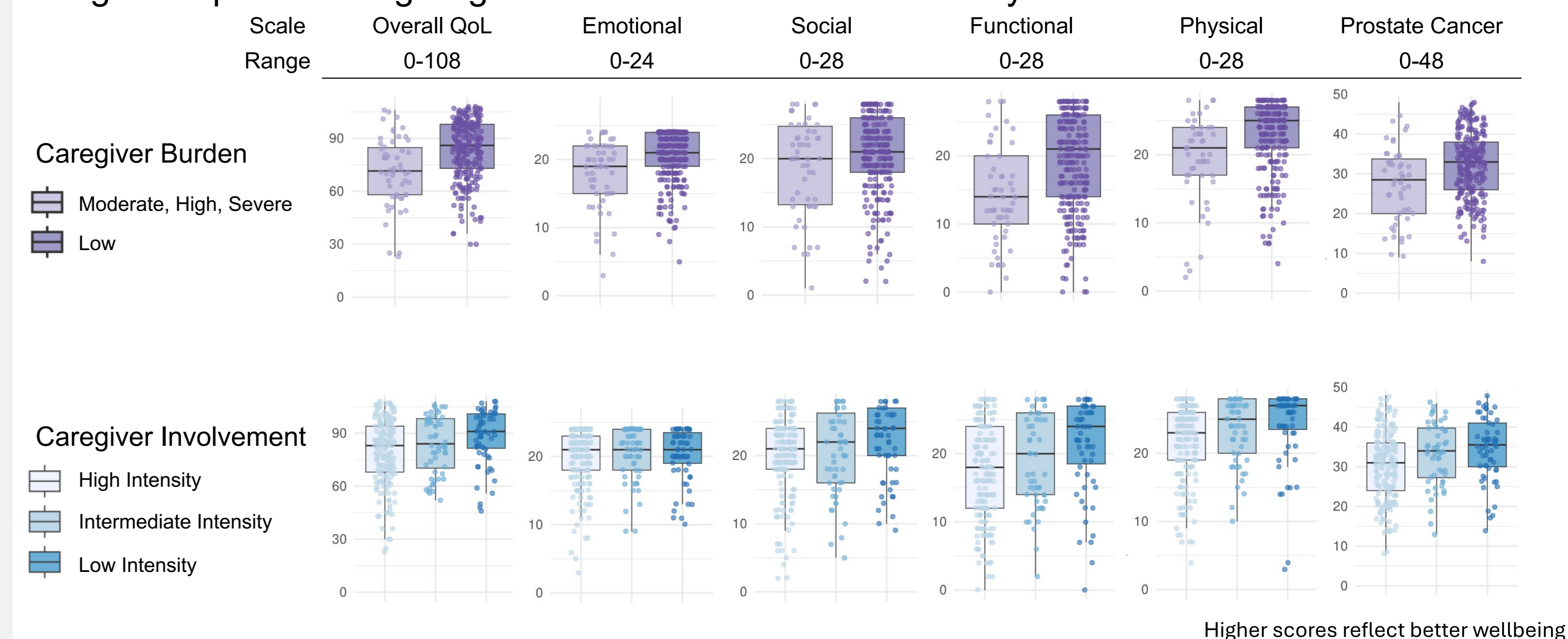
## Results

**Table 1.** Selected characteristics of prostate cancer survivors (N = 323) included in analysis.

Age at diagnosis, years (median [IQR])	62 (57, 67)
Married or has partner, n (%)	199 (62)
High school education or less, n (%)	136 (42)
1 or more comorbid condition, n (%)	179 (55)
Stage and Gleason Score, n (%)	
Low Risk (localized + Gleason 6)	59 (18)
Intermediate Risk (localized + Gleason 7)	153 (48)
High Risk (regional, distant, or Gleason 8+)	111 (35)
Primary Treatment, n (%)	
Surveillance	63 (20)
Radical Prostatectomy	142 (44)
Hormone (with or without radiation)	58 (18)
Radiation only	60 (19)
Caregiver Burden <sup>a</sup> , n (%)	
Low	259 (82)
Moderate, High, or Severe	57 (18)
Missing	7
Caregiver Involvement Intensity <sup>a</sup> , n (%)	
Low	63 (21)
Intermediate	58 (19)
High	180 (60)
Missing	22

<sup>a</sup>reported by caregivers at enrollment

**Figure 1.** Distribution of prostate cancer survivor QoL scores at enrollment in ROCS by caregiver-reported caregiving burden and involvement intensity.



**Table 2.** Caregiver burden and involvement intensity of informal caregivers in relation to QoL in prostate cancer survivors (mean differences and 95% confidence intervals; higher scores reflect better wellbeing)

	Overall QoL Range: 0-108	Emotional WB Range: 0-24	Social WB Range: 0-28	Functional WB Range: 0-28	Physical WB Range: 0-28	Prostate Cancer QoL Range: 0-48
<b>Caregiver Burden (comparison: Low burden, with moderate or higher burden as reference group)</b>						
At enrollment	8.7 (4.1, 13.2)*	1.8 (0.7, 2.9)*	1.6 (-0.1, 3.2)*	3.1 (1.4, 4.8)*	1.8 (0.4, 3.2)*	3.1 (0.8, 5.4)*
Additional difference per year	-0.8 (-1.9, 0.4)	0.0 (-0.3, 0.3)	0.3 (-0.2, 0.8)	-0.5 (-0.9, 0.0)	-0.5 (-0.8, -0.1)	-1.3 (-2.4, -0.3)
<b>Caregiver Involvement (comparison: Intermediate or low intensity, with high intensity as reference group)</b>						
<b>At enrollment</b>						
Intermediate Intensity	5.2 (0.8, 9.7)*	0.6 (-0.5, 1.7)	0.4 (-1.2, 2.1)	2.1 (0.3, 3.8)*	1.8 (0.4, 3.1)*	3.2 (0.9, 5.5)*
Low Intensity	7.3 (2.8, 11.7)*	0.5 (-0.6, 1.6)	1.5 (-0.1, 3.2)*	3.2 (1.5, 4.9)*	1.6 (0.2, 2.9)*	4.0 (1.7, 6.3)*
<b>Additional difference per year</b>						
Intermediate Intensity	-0.3 (-1.4, 0.9)	0.1 (-0.3, 0.4)	0.0 (-0.5, 0.5)	-0.3 (-0.8, 0.2)	0.0 (-0.3, 0.3)	-0.2 (-1.3, 0.9)
Low Intensity	-0.1 (-1.3, 1.0)	0.2 (-0.2, 0.5)	-0.1 (0.6, 0.4)	0.0 (-0.5, 0.5)	0.1 (-0.3, 0.4)	-1.0 (-2.0, 0.1)

Abbreviations: QoL = quality-of-life; WB = wellbeing;

Models adjusted for survivor and caregiver sociodemographics, cancer clinical characteristics, survivor health, and dyad relationship characteristics;

\* designates a meaningful difference (defined as 5-10% of scale range)

**Conclusion:** Informal caregiving experiences immediately influenced survivor QoL, and the relation of caregiver burden with physical forms of wellbeing differed over time. **Supporting caregivers can impact the care recipients, possibly having long-term influence on cancer survivors.**

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