

Investigating the Joint Effect of Positive Spousal Social Support and Closeness on Dementia Risk Among Older US Adults

Presenter: Nicola Churchill
nchurch22@g.ucla.edu

BACKGROUND

- Little is known about how the quality of spousal relationships shape dementia risk.

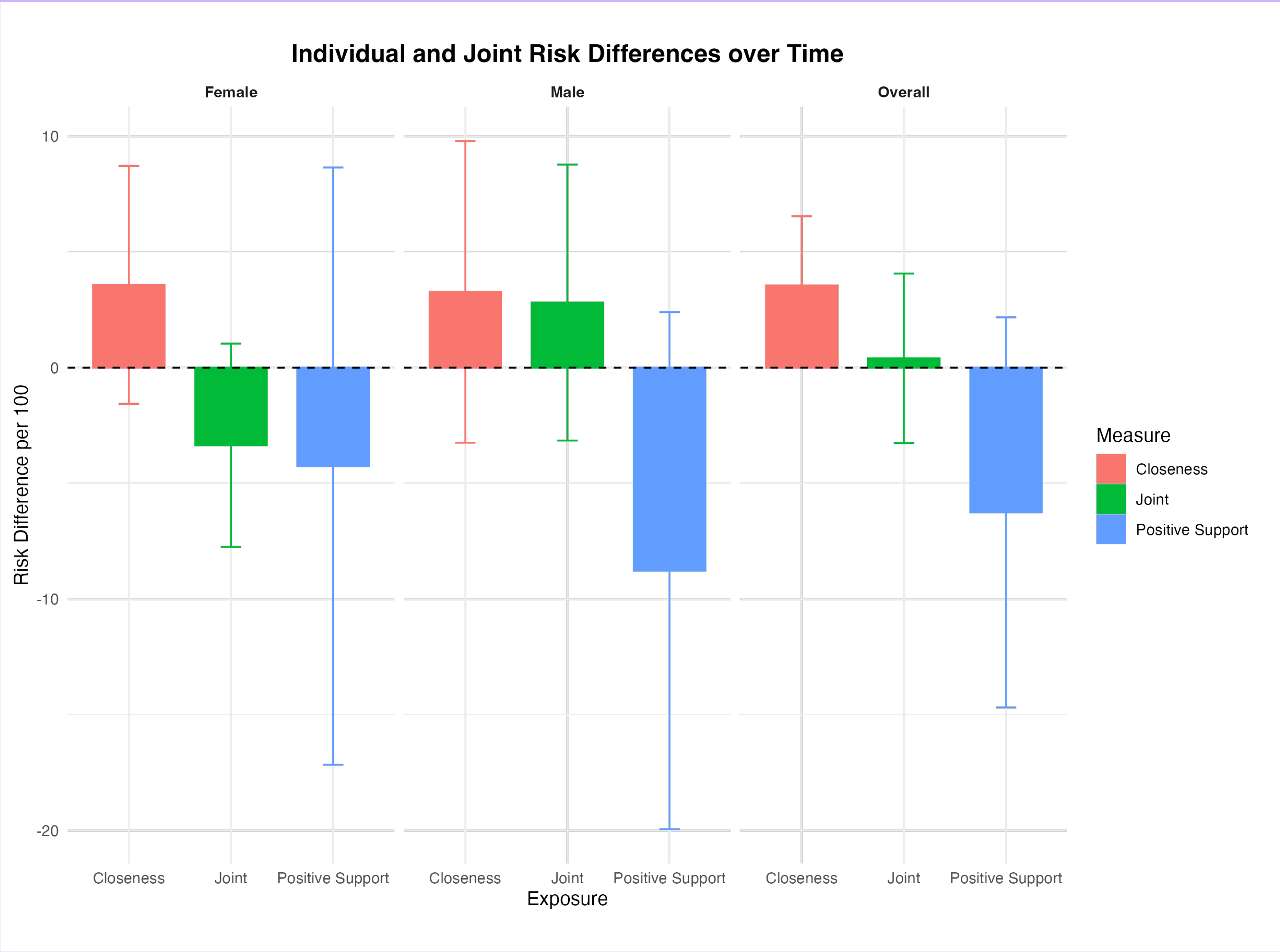
OBJECTIVE

- We evaluated the independent and joint associations of two measures of spousal relationship quality with dementia risk and considered heterogeneity by sex/gender

METHODS

- We used data on married/partnered U.S. Health and Retirement Survey (HRS, 2006-2020) respondents aged 50+ years without prevalent dementia or mild cognitive impairment (MCI) or dementia at analytic baseline.
- Spousal closeness: “How close is your relationship with your partner or spouse?”
- Spousal support: “How much do they really understand the way you feel about things?”, “How much can you rely on them if you have a serious problem”, and “How much can you open up to them if you need to talk about your worries,”
- We evaluated associations with incident MCI/dementia using pooled logistic regression and evaluated differences by sex/gender.
 - We used g-computation methods to predict survival probabilities at each person-time observation under four counterfactual scenarios:
- The potential confounders were all measured at baseline: sex, age, race and ethnicity, depression, education, chronic disease number, ongoing chronic stress, personality traits.
 - We also included high physical activity, financial strain, and income-poverty ratio to increase the precision of our estimates.

Our results suggest complex links between spousal relationship quality and dementia risk, with meaningful variation by sex/gender



Individual and Joint Associations between Positive Spousal Social Support and Closeness to Spouse and Dementia Risk				
	Men (n = 2770) ¹		Women (n = 3133) ¹	
	Risk difference, RD (per 100) (95% CI)	Risk ratio, RR (95% CI)	Risk difference, RD (per 100) (95% CI)	Risk ratio, RR (95% CI)
Positive Spousal Support	-8.77 (-19.94, 2.40)	0.82 (0.62, 1.08)	-4.25 (-17.16, 8.65)	0.90 (0.65, 1.24)
Closeness with Spouse	3.27 (-3.25, 9.79)	1.07 (0.94, 1.21)	3.58 (-1.56, 8.72)	1.08 (0.97, 1.20)
Joint effect	2.81 (-3.15, 8.78)	1.06 (0.94, 1.19)	-3.35 (-7.75, 1.04)	0.93 (0.84, 1.02)
Model 1: Estimated risk of dementia at end of 14-year follow up, adjusted for age, race/ethnicity, depression at baseline, education, personality traits, high physical activity, financial strain, ongoing chronic stress, and income poverty ratio				
P-value for interaction for End for men = 0.38				
P-value for interaction for End for women = 0.58				

RESULTS

- 40% (34% women,48% men) reported very supported from their spouse.
- 60% (55% women, 65% men) reported very close to their spouse.
- 37% (31% women, 43% men) reported feeling both very supported and very close to their spouse.
- Reporting the highest level of closeness vs. low or no closeness with one’s spouse or partner was associated with a higher dementia risk (RR: 1.07 95% CI: 1.01, 1.14).
- Reporting the highest level of positive spousal support vs. low or no support was associated with a *lower* dementia risk (RR: 0.87 95% CI: 0.71, 1.06).
- Joint associations between both positive support and closeness with one’s spouse and dementia risk varied by sex/gender:
 - Estimates were protective for women but in the adverse direction for men.

CONCLUSION

- Higher dementia risk among those reporting closeness with their spouse or partner could reflect reverse causation. Early stages of cognitive decline may lead to an activation of social ties to support with activities of daily living.
- However, spousal support was independently associated with lower dementia risk.
- Future studies should address bias sources like marital selection and evaluate mechanisms underlying observed associations.