

# Greater severity of apathy diminishes the protective effects of social contact on subjective cognitive symptoms, and loneliness independently contributes to subjective cognitive decline

## The interplay of social contact, apathy, and loneliness: Associations with cognitive symptoms in Canadian adults

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### BACKGROUND

- Social contact<sup>1,2</sup>, apathy<sup>3</sup>, and loneliness<sup>2,4</sup> have each been independently associated with increased risk for cognitive decline and dementia.
- Few studies have investigated social contact, apathy, and loneliness together.
- Apathy may influence social interaction factors like social contact.
- Unclear whether the relationship between social contact and cognition is dependent on symptoms of apathy.

### RESEARCH AIM

- Determine the associations of social contact, apathy, and loneliness with subjective cognitive decline (SCD)
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- Determine whether the association between social contact and SCD depends on apathy severity

### METHODS

**Participants:** 1633 dementia-free participants in the **CAN-PROTECT** study.

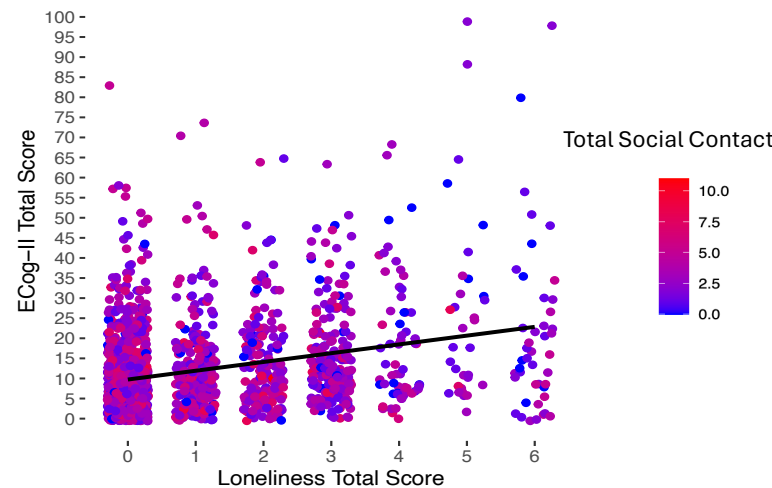
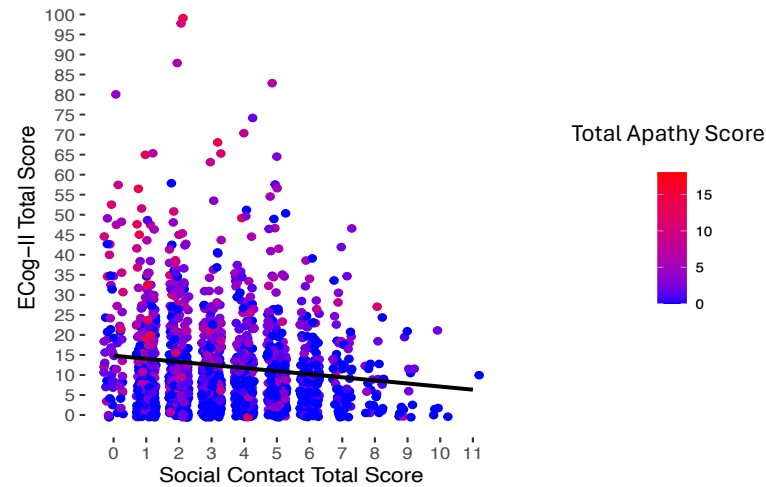
#### Measures:

- **Community Health Activities Model Program for Seniors Scale:** measured social contact; ↑ score = ↑ number of social contact instances
- **Apathy domain of Mild Behavioral Impairment Checklist:** measured apathy; ↑ score = ↑ apathy severity
- **UCLA 3-Item Loneliness Scale:** measured loneliness; ↑ score = ↑ loneliness severity
- **Revised Everyday Cognition Scale (ECog-II Scale):** measured SCD; ↑ score = ↑ SCD

**Negative Binomial Regression:** to examine associations between social contact, apathy, and loneliness (predictors), with ECog-II total score (outcome).

- Moderation analysis included total apathy score as an interaction factor.
- Models adjusted for age, sex, years of education, marital status, and ethnic origin.

### RESULTS



### CONTINUED RESULTS

#### Variable Associations with ECog-II Total Score:

| Predictor Variable                            | Exp(b) | 95% Confidence Interval (2.5% — 97.5%) | p     |
|---|--------|--|-------|
| Social contact total score                    | -2.86  | -5.44 — (-0.20)                        | 0.02  |
| Apathy total score                            | 10.78  | 7.57 — 14.17                           | <.001 |
| Loneliness total score                        | 5.94   | 2.63 — 9.40                            | <.001 |
| Social contact total score*Apathy total score | 1.15   | 0.21 — 2.20                            | 0.01  |

### CONCLUSIONS

- Social contact, apathy, and loneliness are all associated with both risk and resilience to SCD.
- Loneliness independently associated with SCD, regardless of social contact.
- The protective association of social contact on cognitive symptoms is diminished with greater apathy severity.
- Future research should consider apathy when investigating the relationship between social norms and SCD, as well as the onset of incident dementia.

### REFERENCES AND CONTACT INFO

Scan the QR code for references and author contact information.

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