Mental Health and Social Connectedness Across the Adult Lifespan in the Context of COVID-19

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RESEARCH OBJECTIVE

- We conducted a nation-wide online survey to better understand impacts of the pandemic on emotions, behaviour and well-being.
- Research from other countries suggests that older adults (aged 65+) are relatively resilient to the negative mental health impacts of the COVID-19 pandemic, demonstrating consistently lower rates of depression, anxiety and stress compared to younger adults (Garcia-Portilla et al., 2020; Varma et al., 2020)
- Our survey of Canadian adults builds on previous studies by examining whether age-linked differences in social connectedness and social needs could explain these age-related differences in mental health concerns.

HYPOTHESES

- Oldest age groups within our sample would report the lowest rates of difficulties across all mental health outcomes and social connectedness variables
- Higher perceived social support would be associated with better mental health outcomes
- Frequency of communication would predict better mental health outcomes in the younger age groups
- Loneliness would have a negative association with mental health outcomes across all age groups, but be more pronounced among younger age groups
- There would be significant moderation effects of perceived social support and frequency of communication

STUDY DESIGN & DATA ANALYSIS

Participants were 1) living in Canada, 2) aged 17 years or older, and 3) had access to be able to complete the online survey.

Relevant measures/survey questions for this analysis:
- Age group (Under 25, 25-34, 45-44, 45-54, 55-64, 65+)
- Depression (PHQ-9), Anxiety (GAD-7), Trauma-related stress (IES-R)
- Perceived social support (MSPSS), Loneliness (UCLA-3)
- Mental health diagnoses and changes in mental health
- Substance use (alcohol & recreational drugs)
- Technology-assisted social communication (at least daily vs not)

- Chi-square analyses examined differences across age groups on categorical demographic, mental health and social connectedness variables
- One-way ANOVAs examined age group differences on continuous mental health and social connectedness outcomes
- Hierarchical multiple regression analyses were conducted in each age group
  - Block 1: Pre-existing mental health diagnoses, sex and ethnicity
    Block 2: Loneliness, social support, frequency of technology-assisted social communication
  - Block 3: Two interaction terms (loneliness X social support; loneliness X frequency of social communication)
- Regression coefficients from each final age group model were compared using z score estimates
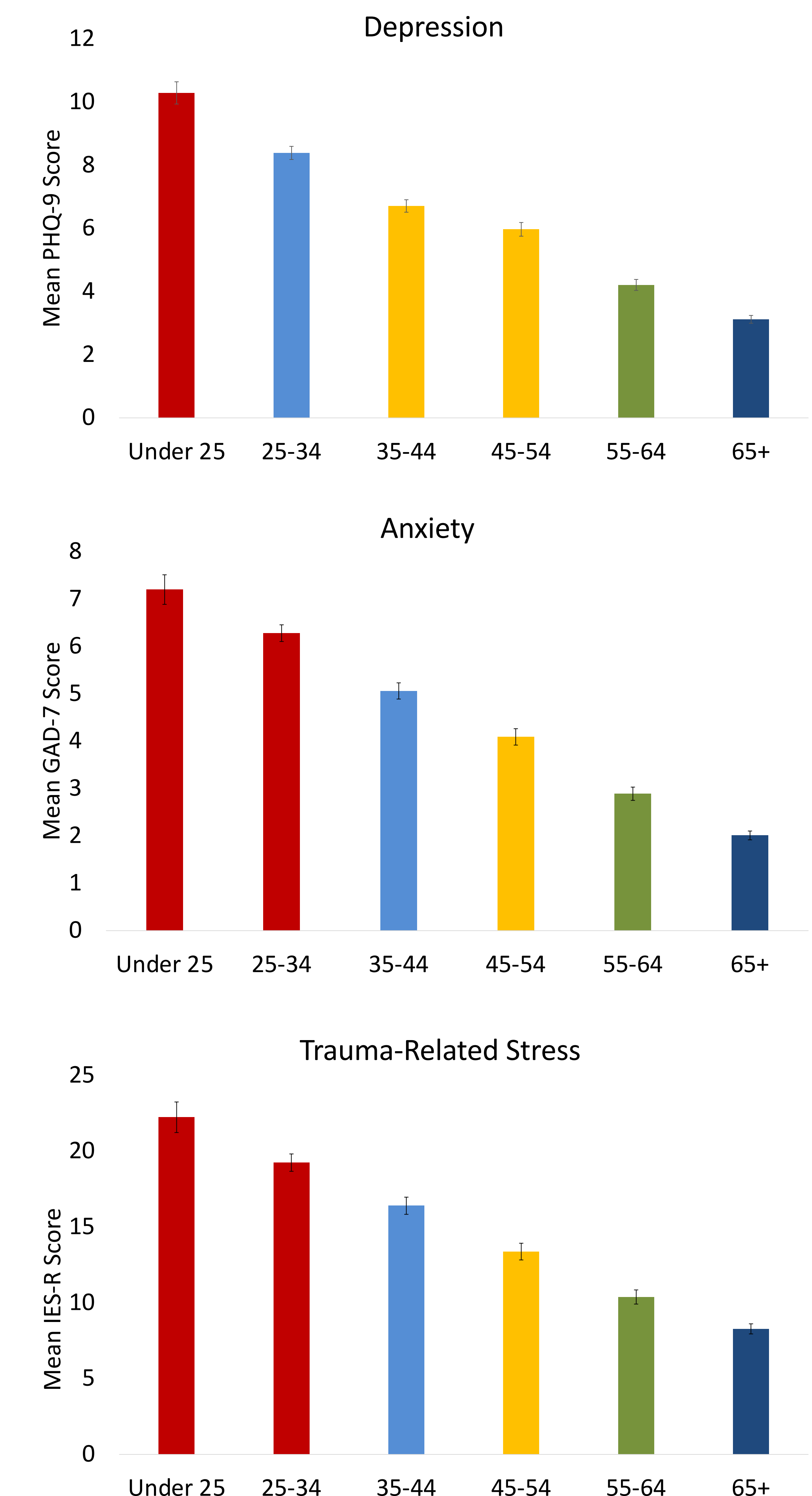
RESULTS

Table 1. Participant Characteristics

	Under 25 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	P-value (Cramer's V)
N	404	1072	996	910	861	1250	-
Sex (% M/F)	28.7/71.3[a]	27.1/72.9[a]	39/61[b]	46.9/53.1[c, d]	40.4/59.6[b, d]	51.5/48.5[c]	<.001 (.18)
White Ethnicity (%)	55.4[s]	66.5[b]	76.4[c]	84.7[d]	90.2[e]	95.1[f]	<.001 (.15)
Living Alone (%)	11.9[a]	18.7[b]	20.7[b]	22.7[b]	23.7[b, c]	29.2[c]	<.001 (.11)
Social distancing (%)	70.5[a, b]	66.7[b, c]	61.9[c]	63.2[b, c]	67.6[a, b, c]	73.1[a]	<.001 (.09)
Self-isolating due to symptoms[†] (%)	12.6[a]	9.9[a, b]	7.2[b, c]	5.6[c]	2.4[d]	2.1[d]	<.001 (.15)

Table 2. Social Connectedness and Mental Health Group Comparisons

	Under 25 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years	P-value (effect size)
Mental Health Diagnosis	54[a]	42.4[b]	38.2[b, c]	34.6[c]	27.5[d]	18.5[e]	<.001 (Cramer's V = .22)
Perceived Social Support (PSS)	4.98[a] (1.25)	5.12[a, b] (1.23)	5.04[a] (1.36)	5.06[a] (1.36)	5.13[a, b] (1.31)	5.24[b] (1.22)	<.001 (ω^2 = .003)
Loneliness	6.19[a] (1.94)	5.75[b] (1.99)	5.44[c] (2.03)	5.07[d] (2.06)	4.79[e] (1.88)	4.53[f] (1.76)	<.001 (ω^2 = .07)
Min. daily tech-assisted communication (Comm)	85.4[a]	82.9[a]	71.3[b]	64.4[c]	61.1[c]	52.1[d]	<.001 (Cramer's V = .25)

Table 3. Hierarchical Multiple Regression Results (Final Models)

		Under 25 years	25-34 years	35-44 years	45-54 years	55-64 years	65+ years
Depression (PHQ-9)	Significant main/simple effects	Loneliness	Loneliness, PSS, Comm	Loneliness, PSS	**Loneliness**, PSS, Comm	Loneliness, PSS	Loneliness
	Significant Interactions	-	-	-	PSS X Loneliness	PSS X Loneliness	PSS X Loneliness
	R_{adj}^2	.36	.40	.39	.47	.45	.42
Anxiety (GAD-7)	Significant main/simple effects	Loneliness*	Loneliness	Loneliness, PSS	Loneliness, Comm	Loneliness, PSS, Comm	Loneliness
	Significant Interactions	-	-	-	PSS X Loneliness	-	-
	R_{adj}^2	.35	.27	.29	.34	.34	.29
Trauma-Related Stress (IES-R)	Significant main/simple effects	Loneliness	Loneliness, PSS	Loneliness	**Loneliness**, Comm	Loneliness	Loneliness
	Significant Interactions	-	PSS X Loneliness	-	-	-	-
	R_{adj}^2	.18	.22	.28	.32	.29	.26

Depression — Mean PHQ-9 Score by age group (Under 25, 25-34, 35-44, 45-54, 55-64, 65+)

Anxiety — Mean GAD-7 Score by age group

Trauma-Related Stress — Mean IES-R Score by age group

CONCLUSION

- Results suggest older adults are experiencing better mental health and more social connectedness relative to younger adults.
- Loneliness and lower social support predicted negative mental health outcomes across most age groups, while the association between social support and depression was only significant at average and high levels of loneliness in age groups 45 and older.
- Results point towards differential mental health impacts of the pandemic across adult age groups, and indicate that loneliness and social support may be key intervention targets during the COVID-19 pandemic.
- Future research should further examine mechanisms of resiliency among older Canadian adults during the pandemic.

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