****

SUPPLEMENTAL DATA S1
LONELINESS AND END OF LIFE EXPERIENCE IN OLDER ADULTS

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Supplemental Table 1: Multivariable regression models predicting total symptom burden[a] in the last year of life in lonely versus non-lonely decedents with imputed covariates (n=2896)

	Unadjusted		Model 1[b]		Model 2[c]		Model 3[d]		Model 4[e]		Model 5[f] (n=2452)	
	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value
Total symptom burden[a]	0.26 (0.19-0.34)	**<0.001**	0.19 (0.12-0.26)	**<0.001**	0.11 (0.03-0.19)	**0.006**	0.19 (0.12-0.27)	**<0.001**	0.21 (0.13-0.28)	**<0.001**	0.13 (0.04-.21)	**0.004**

Note: Bold font indicates statistically significant value (P<0.05)

[a] Composite score for total symptom burden derived from factor analysis, Cronbach's alpha = 0.65.

[b] Model 1: Adjusted for race, age, gender, education, total income, multimorbidity-weighted index

[c] Model 2: Model 1 + depressive symptoms

[d] Model 3: Model 1 + family and friends (partner status and "has friends;" note that "has children," "lives within 10 miles of children" and "has other immediate family" were not included since the baseline relationship with loneliness was not significant [Table 1])

[e] Model 4: Model 1 + social support (relies on spouse, relies on children, relies on friends)

[f] Model 5: Model 2 + family and friends (partner status, has friends) + social support (relies on spouse, relies on children, relies on friends)

Supplemental Table 2: Multivariable regression models predicting total symptom burden in the last year of life in lonely versus non-lonely decedents without imputed covariates

	Unadjustd (n=2896)		Model 1[b] (n=2877)		Model 2[c] (n= n=2695)		Model 3[d] (n=2772)		Model 4[e] (n=2670)		Model 5[f] (n=2452)	
	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value	Beta (95% CI)	P-Value
Total symptom Burden[a]	0.26 (0.18-0.34)	**<0.001**	0.19 (0.12-0.27)	**<0.001**	0.10 (0.02-0.18)	**0.02**	0.19 (0.11-0.27)	**<0.001**	0.22 (0.14-0.31)	**<0.001**	0.12 (0.02-0.22)	**0.02**

Note: Bold font indicates statistically significant value (P<0.05)

[a] Composite score for total symptom burden derived from factor analysis, Cronbach's alpha = 0.65.

[b] Model 1: Adjusted for race, age, gender, education, total income, multimorbidity weighted index

[c] Model 2: Model 1 + depressive symptoms

[d] Model 3: Model 1 + family and friends (partner status and "has friends;" note that "has children," "lives within 10 miles of children" and "has other immediate family" were not included since the baseline relationship with loneliness was not significant [Table 1])

[e] Model 4: Model 1 + social support (relies on spouse, relies on children, relies on friends)

[f] Model 5: Model 2 + family and friends (partner status, has friends) + social support (relies on spouse, relies on children, relies on friends)

Supplemental Table 3: Relationship of loneliness to measures of intense care, healthcare utilization, and advance care planning at end of life without imputed covariates

Outcome	Adjusted[b] Odds Ratio (95% CI)	P-Value
Measures of Intense EOL Care		
3 or less days in hospice (n=1139)	0.90 (0.69-1.10)	0.43
Death location (n=2481)		
Home	Ref	Ref
Hospital	1.16 (0.89-1.51)	0.24
Nursing home	1.50 (1.03-2.19)	**0.03**
Spent time in ICU in last 2 years of life (n=904)	1.08 (0.84-1.40)	0.53
Used life support equipment in last 2 years of life (n=1949)	1.38 (1.06-1.79)	**0.02**
Dialysis in last 2 years of life (n=1968)	0.74 (0.41-1.31)	0.30
Other Healthcare Utilization in Last 2 years of Life		
Hospital nights, IRR[a] (n=1740)	0.96 (0.68-1.36)	0.82
Nursing home nights, IRR (n=365)	0.78 (0.42-1.45)	0.41
Advance Care Planning		
Discussed EOL care (n=2460)	1.06 (0.83-1.34)	0.63
Assigned durable power of attorney (n=2417)	1.09 (0.82-1.44)	0.54
Written EOL care instructions (n=2440)	0.97 (0.78-1.21)	0.79
Subject participated in EOL decisions (n=1051)	0.91 (0.64-1.30)	0.65

Note: Bold font indicates statistically significant value (P<0.05)

[a] IRR: Incidence risk ratio

[b] Adjusted for race, age, gender, education, total income, multimorbidity-weighted index, depressive symptoms, family and friends (partner status, has friends), social support (relies on spouse, relies on children, relies on friends)