

Investigation in factors associated with caregiver strain



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OBJECTIVE

- Analyze factors associated with increased incidence of depression among American caregivers.
- Our primary question is whether demographic factors were associated with increased incidence of depression in caregivers.
- Our secondary question is whether the relation between the caregiver and care recipient, the disease or disability of the care recipient, or the type of care provided was associated with higher levels of depression for the care provider.

BACKGROUND

- 20.65% of Americans are caregivers for individuals with long-term disabilities.¹
- The number of caregivers is expected to increase with an aging population, and an increase in individuals living with chronic conditions.²
- The effective establishment of social and educational support programs, is made difficult by the multifaceted nature of the strain,³ yielding a circular issue that often results in a higher incidence of depression in the caregiver.
- Meta-analyses into caregiver distress generally find that female caregivers, caregivers with low educational attainment, and caregivers who live with the care recipient, are associated with higher scores on depression indices.⁴⁻⁵

METHODS

- We conducted a cross-sectional analysis of data from the 2021 Behavioral Risk Factor Surveillance System (BRFSS) conducted by the CDC.
- Respondents were included in the study if they had 1) provided regular care to a family member or friend with a long-term disability within the last 30 days, and 2) have provided care for greater than 30 days.
- Demographic variables of sex, ethnicity, income, educational attainment, and urbanicity were analyzed with caregivers who had received a diagnosis of depressive disorder.
- The care recipient's relationship to the caregiver, the type of care they received, and their disability, were also analyzed with whether the caregiver had received a diagnosis of depressive disorder.

RESULTS

- Caregivers who are female associated with increased incidence of depressive disorder compared to male caregivers.
- American Indian and Alaskan Native and "other race" caregivers reported significantly higher rates of depression, compared to white, black, Asian, and Hispanic caregivers.
- Caregivers earning less than \$15k per year associated with higher incidence of depressive disorder
- Caregivers who did not graduate high school, or who began college but did not finish, associated with higher incidence of depressive disorder

Depressive disorder in caregivers vs demographic variables

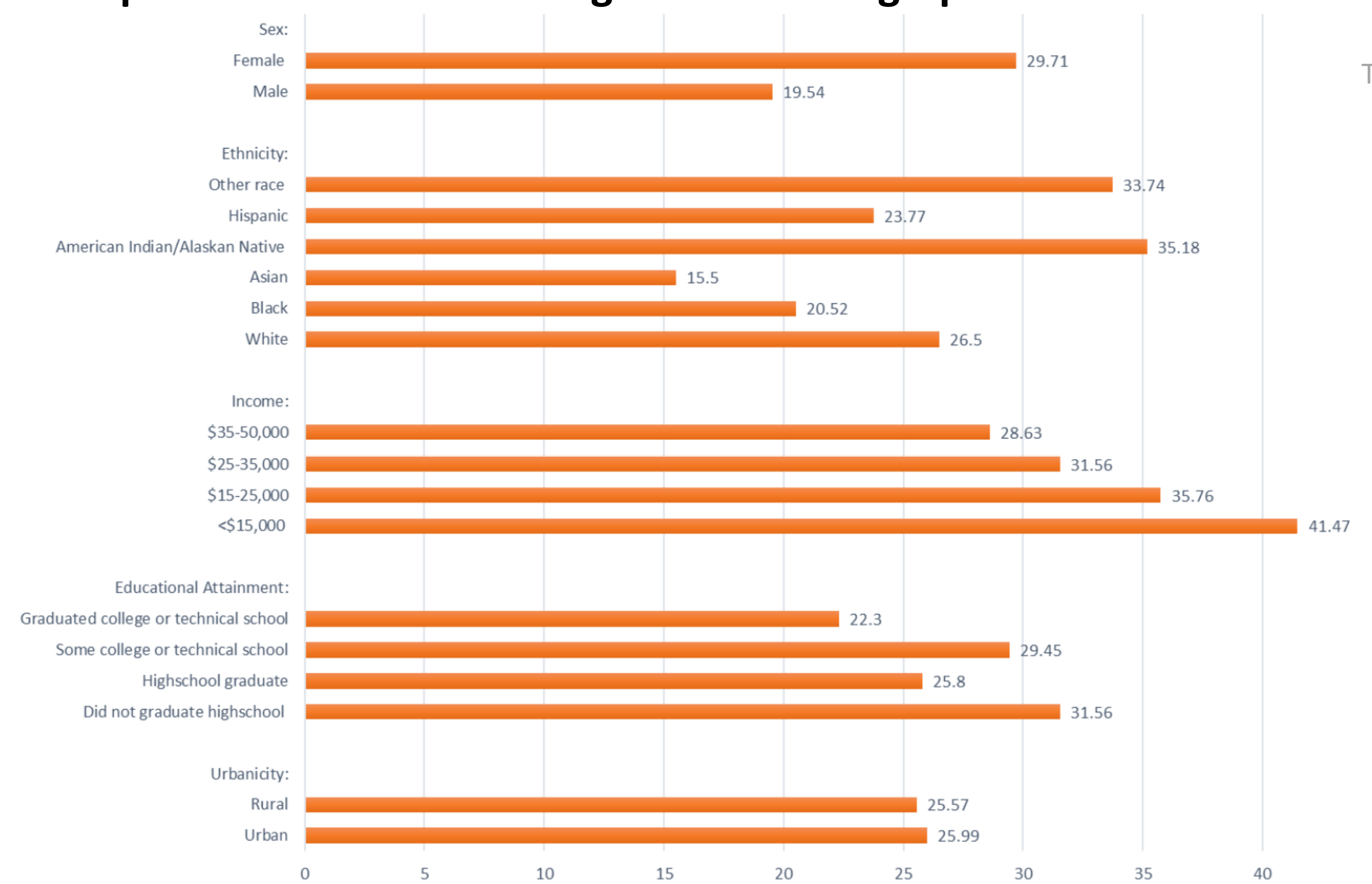


Figure 1. Displaying rates of depressive disorder compared among demographic factors of caregivers. Significant values marked with *

Depressive disorder in caregivers vs care recipient information

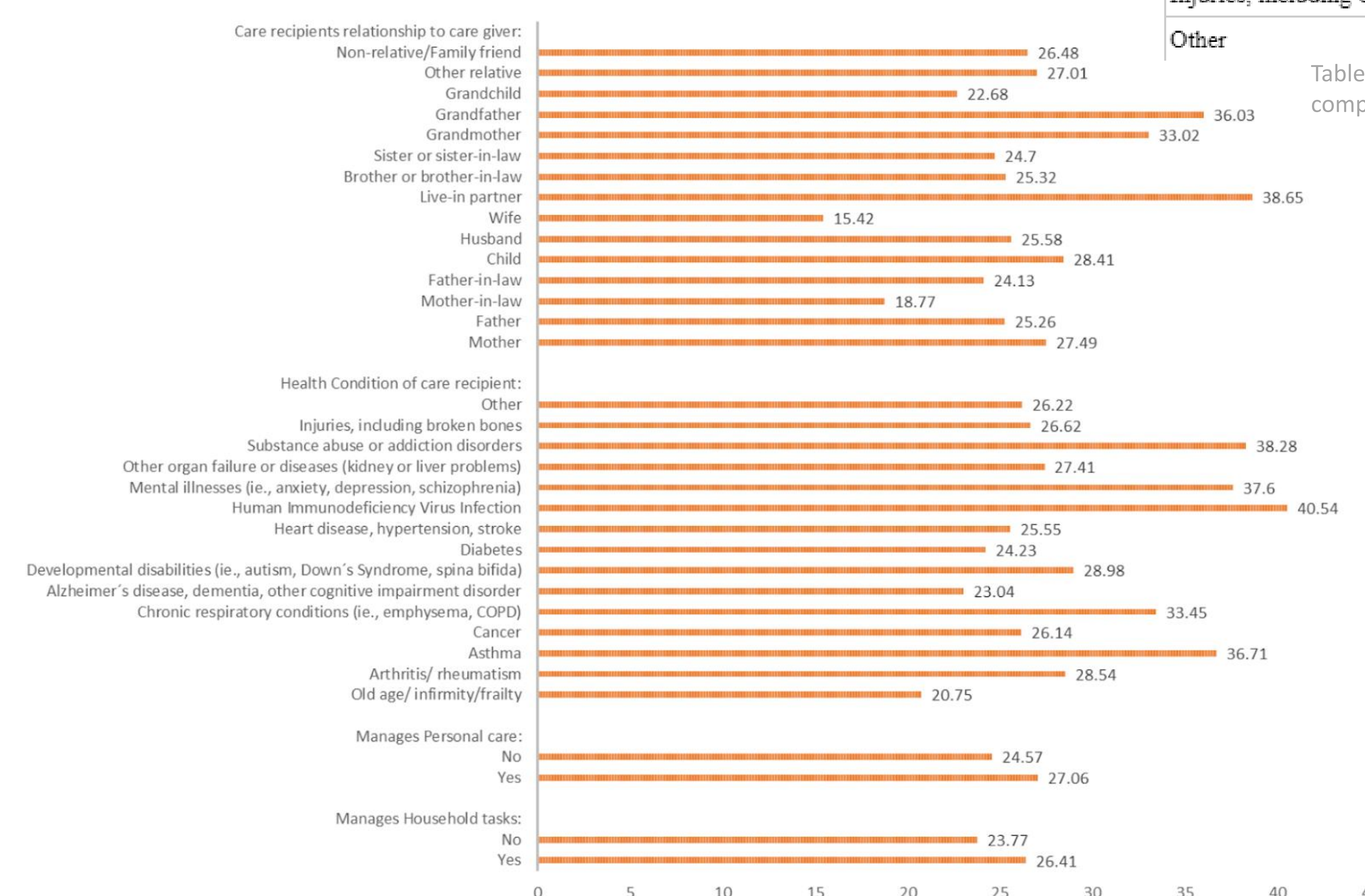


Figure 2. Displaying rates of depressive disorder compared among caregivers compared to 1) relation to caregiver, 2) disorder of care recipient, 3-4) type of care. Significant values marked with *

Adjusted odds ratio of caregiver depression vs relationship to recipient

Care recipients relationship to care giver	Adjusted Model AOR (95%CI)
Mother	1 (Reference)
Mother-in-law	0.67 (0.52-0.87)
Husband	0.77 (0.65-0.91)
Wife	0.65 (0.52-0.81)
Live-in partner	1.51 (1.06-2.16)
Non-relative/Family friend	0.85 (0.72-0.99)

Table 1. Significant AORs of depressive disorder among caregivers compared to relationship to care recipient

Adjusted odds ratio of caregiver depression vs diagnosis of recipient

Health condition of care recipient	Adjusted Model AOR (95%CI)
Old age/ infirmity/frailty	1 (Reference)
Arthritis/ rheumatism	1.58 (1.23-2.04)
Asthma	2.41 (1.37-4.25)
Cancer	1.33 (1.08-1.64)
Chronic respiratory conditions (ie., emphysema, COPD)	1.94 (1.51-2.48)
Alzheimer's disease, dementia, other cognitive impairment disorder	1.21 (1.01-1.44)
Developmental disabilities (ie., autism, Down's Syndrome, spina bifida)	1.39 (1.1-1.78)
Heart disease, hypertension, stroke	1.28 (1.05-1.56)
Mental illnesses (ie., anxiety, depression, schizophrenia)	2.34 (1.84-2.99)
Other organ failure or diseases (kidney or liver problems)	1.34 (1-1.79)
Substance use or addiction disorders	2.45 (1.15-5.24)
Injuries, including broken bones	1.25 (0.99-1.58)
Other	1.38 (1.19-1.62)

Table 2. Displays significant AORs of depressive disorder among caregivers compared to the diagnosis of the care recipient

- Associated with lower rates of depression:
 - Caregivers of mothers-in-law or wives
 - Caregivers of individuals with old age/infirmity/frailty, or dementia
- Associated with higher rates of depression:
 - Caregivers of live-in partners, grandmothers, or grandparents
 - Caregivers of individuals with HIV, substance use disorder, or mental illnesses

CONCLUSION

- Further research into the risk factors of caregiver distress can establish more directed and personalized therapeutic approaches, which—combined with effective community resources—can reduce emotional burden placed on caregivers, thereby mitigating the negative effects of caregiver stress on the prognosis and quality-of-life of care recipients.³

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