



Influencing Factors of Depression among Residents in Long-term Care in Lebanon

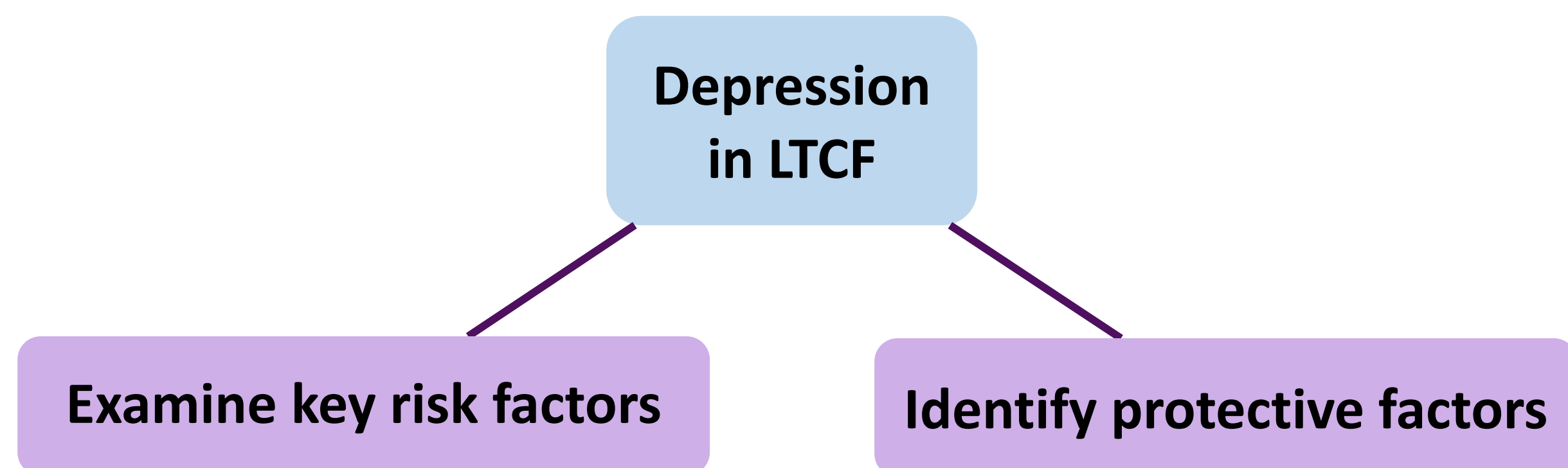
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Religious involvement and regular family visits were identified as protective factors against depression. In contrast, a history of surgery, ≥ 3 chronic conditions, previous COVID-19 infection, frailty, and anxiety were significantly associated with a higher risk of depression in LTCF.

BACKGROUND AND AIMS

- Late-life depression is a major public health concern, especially in long-term care facilities (LTCF).
- In Lebanon, the prevalence of depression in LTCF is **32%** (according to our previous study).
- A crucial aspect in managing depression in elderly residents is identifying the factors associated with the disorder.



METHODS



- **Study Design:** Cross-sectional
- **Settings:** - 16 institutions across Lebanon
- 9 months period in 2022
- **Sample:** - Included: Lebanese aged ≥ 65
- Excluded: Deaf or blind
- **Ethical approval:** Institute of National Public Health, Clinical Epidemiology Toxicology-Lebanon (2022REC-007-INSPECT-11-09)

Instruments:

- Nursing Home Short Depression Inventory (NH-SDI) → Depression
- Mini-Mental State Examination (MMSE) → Cognitive deficits
- Numeric Pain Rating Scale (NRS) → Pain severity
- Lebanese Insomnia Scale (LIS-18) → Insomnia
- Lebanese Anxiety Score (LAS-10) → Anxiety
- Groningen Frailty Indicator (GFI) → Frailty

- **Statistical analysis:** SPSS (v. 27), Multivariable logistic regression (backward method), significance at $p < 0.05$

RESULTS

- The total number of participants was **180** individuals.
- Mean age= 77 (SD= 8), females= 68%, single= 36%, illiterate= 28%, daily religious practices= 74%, work history= 50%, no family visits= 32%, exercise= 50%, still smoke= 28%, never drank alcohol= 87%, no chronic diseases= 11%, surgery history= 55%, COVID-19 infection= 36%

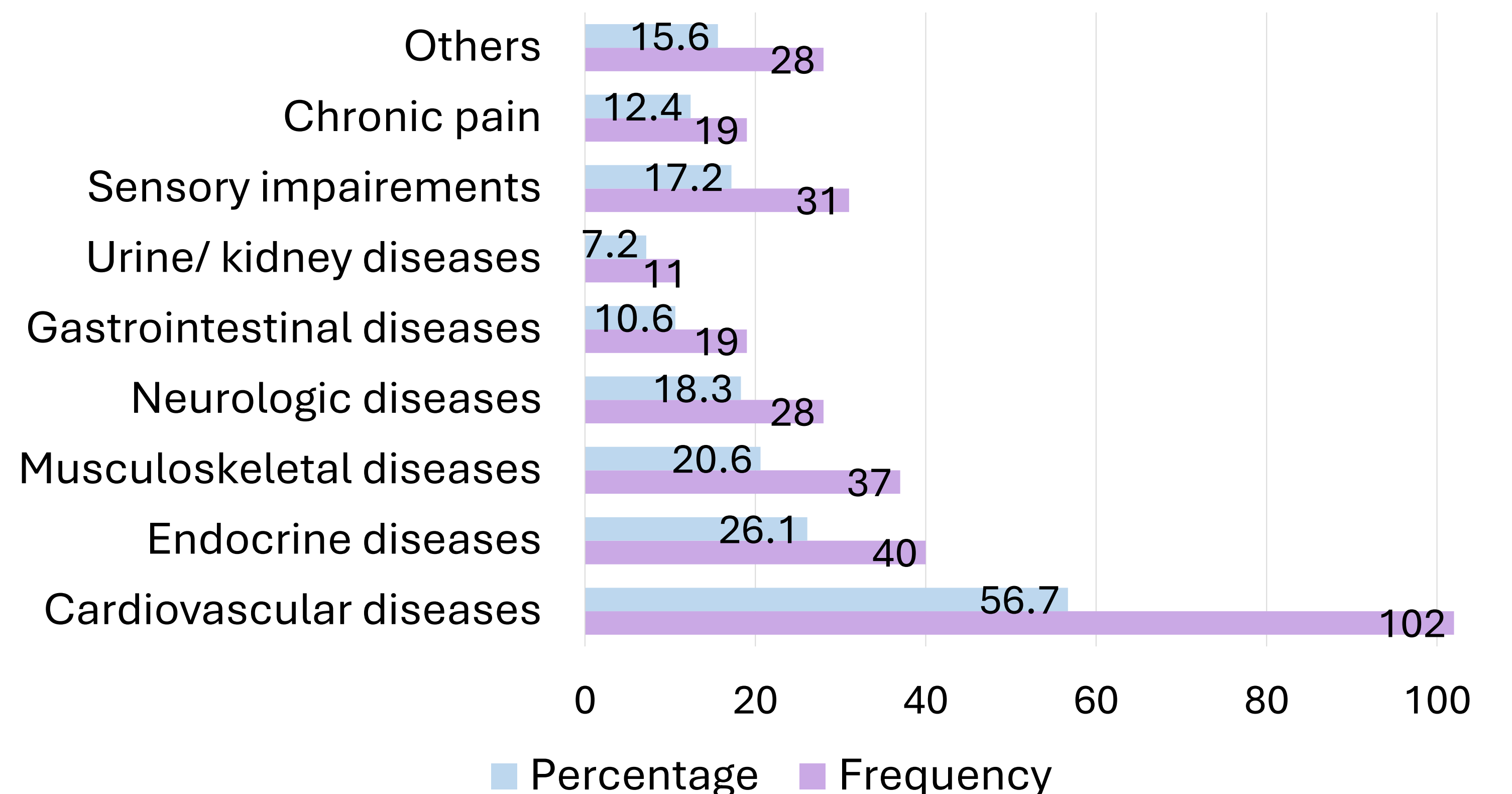


Figure 1: Frequency and percentage of medical conditions

- Hosmer and Lemeshow test ($\chi^2 = 8.5$, $p = 0.39$)
- Between 37% and 50% of the variance in depression was explained
- 80% of the cases were correctly classified

Table 1: Multiple logistic regression analysis in LTCF in Lebanon

Variables	B	Wald	AOR (95% CI)	P
Religious involvement (daily)	-1.3	4.9	0.3 (0.1-0.8)	0.02
Frequency of visits (several times a month)	-1.1	4.3	0.4 (0.1-0.9)	0.04
Number of medical conditions (≥ 3)	2.1	6.2	8.4 (1.6-44.7)	0.01
Surgery (yes)	1.1	7.6	3.1 (1.4-6.9)	0.006
Infected with COVID-19 (yes)	1.8	18.3	6.2 (2.7-14.4)	<0.001
GFI (≥ 4)	1.3	4.5	3.8 (1.1-12.8)	0.03
LAS-10 (≥ 14)	1.2	6.6	3.3 (1.3-8.4)	0.01

CONCLUSIONS AND RECOMMENDATIONS

- Religious involvement & family visits are protective factors of depression in LTCF in Lebanon.
- Multimorbidity (≥ 3), surgery history, COVID-19 infection, frailty, and anxiety are factors associated with depression in this population.
- LTCF should address these factors to effectively manage depression.
- Future work will focus on examining potential moderators and mediators of depression within this sample.

