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INTRODUCTION

- Multimorbidity, defined as the coexistence of two or more chronic diseases, is a growing global public health concern.
- Affects approximately 30–37% of adults worldwide, contributing to increased morbidity, mortality, and healthcare costs.
- Health-Related Quality of Life (HRQoL) captures the overall impact of multimorbidity on physical, mental, and social well-being.
- Despite extensive global research, there is limited evidence among U.S. working-age adults.

OBJECTIVE

- To examine the association between multimorbidity and HRQoL among adults aged 18–64 years in the U.S.
- To identify socioeconomic and demographic factors associated with HRQoL disparities.

METHOD

- Design: Cross-sectional study using the Medical Expenditure Panel Survey (MEPS), 2019–2021.
- Sample: 30,827 adults aged 18–64 years.
- Outcome Measure: HRQoL assessed via Veterans RAND 12 (VR-12), producing Physical (PCS) and Mental (MCS) component scores.
- Key Independent Variable: Multimorbidity (≥ 2 of 13 chronic diseases).
- Covariates: Demographics, socioeconomic status, health insurance, and physical activity.
- Analysis: Weighted descriptive statistics and multivariable linear regression accounting for survey design.

RESULTS

Prevalence:

- Multimorbidity observed in 23.4% of U.S. adults.
- Higher among women (26.0%), unemployed (37.8%), poor (30.3%), and physically inactive adults (27.4%).

HRQoL Scores:

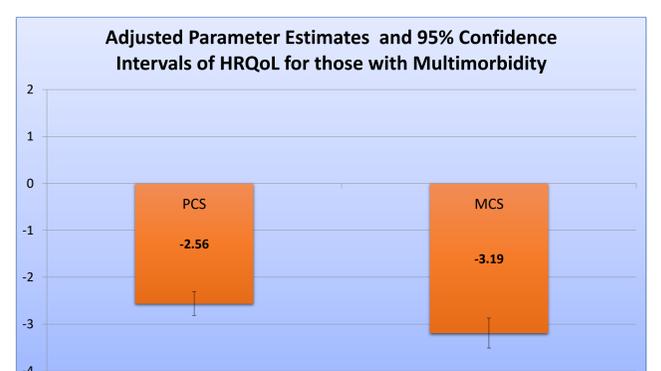
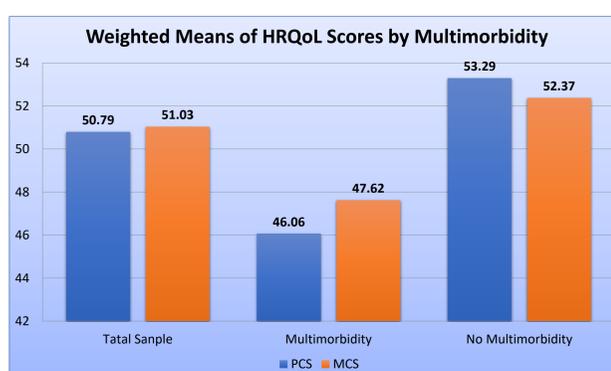
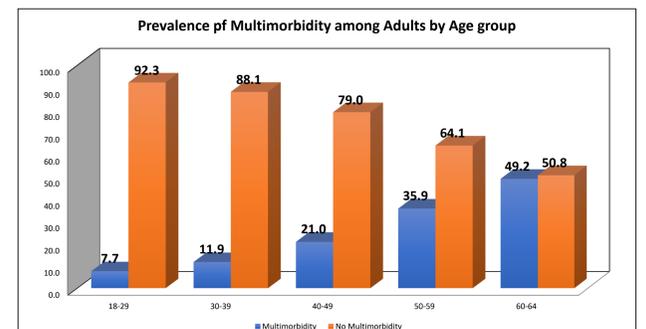
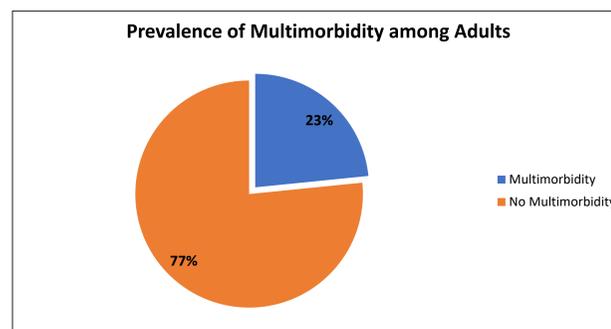
- PCS: 46.06 (with multimorbidity) vs. 53.29 (without).
- MCS: 47.62 (with multimorbidity) vs. 52.37 (without).

Adjusted Regression Results:

- Multimorbidity significantly associated with lower HRQoL:
- PCS: $\beta = -2.658$, $p < 0.001$
- MCS: $\beta = -3.119$, $p < 0.001$

Positive Predictors: employment, higher income, physical activity.

Negative Predictors: poverty, lack of insurance, poor general health.



CONCLUSIONS

- Multimorbidity significantly impairs both physical and mental HRQoL among working-age adults.
- Findings align with global evidence from Belgium, China, and Australia showing similar negative effects.
- Employment, income, and physical activity mitigate HRQoL decline, underscoring social determinants of health.
- **Implications:**
 - **Clinical:** Highlights the need for integrated, person-centered care are essential to manage multimorbidity's cumulative impact.
 - **Public Health:** Encourage lifestyle interventions (e.g., physical activity) to improve HRQoL.
 - **Policy:** Supports policy reforms to strengthen chronic disease management and achieve Sustainable Development Goal 3 (health and well-being for all).

REFERENCES

- Skou ST et al., *Nat Rev Dis Primers*, 2022.
- Chowdhury SR et al., *eClinicalMedicine*, 2023.
- Tran PB et al., *BMC Med*, 2022.

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