

Does Undiagnosed Depression In Stroke Patients Affect The Total Healthcare Expenditures and Health-Related Quality of Life: An Analysis Using Medical Expenditure Panel Survey Data, 2016-2018

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BACKGROUND

- Depression is the most common and severe psychiatric complication of stroke.
- It is associated with increased mortality rate, increased cognitive impairment, and increased disability, slowing the stroke patients' rehabilitation and recovery process.¹
- Depression often goes undiagnosed in stroke patients. The odds of depression going undiagnosed are three times higher in stroke patients compared to non-stroke patients.²
- Undiagnosed depression can cause greater complication rates, extended periods of healthcare, and an increased risk of death in stroke patients, leading to poor quality of life and increased healthcare costs.³

OBJECTIVE

To assess the impact of undiagnosed depression on health-related quality of life (HRQOL) and total healthcare expenditures in stroke patients.

METHODS

Study design	Cross-sectional study
Data source	Household component (full-year consolidated and medical conditions file) of Medical Expenditure Panel Survey (MEPS) for the year 2016-2018
Study participants	Stroke patients aged 18 years and above were, classified based on their depression status using the ICD-10 CM codes of depression ("F32") and PHQ-2 ≥3 into three groups: (i) Diagnosed depression (ii) Undiagnosed depression (with PHQ-2 ≥3 and without ICD-10 diagnosis code of depression) (iii) No depression.

Measures

- Outcome variables : HRQoL (PCS and MCS scores obtained from SF-12v2/VR-12) and Total healthcare expenditures.
- Other independent variables: selected using Andersen behavioural model.

Statistical Analysis

- Linear regression was used to examine the impact of depression status on the HRQoL.
- A generalized linear model with gamma distribution and log link function was used to analyze the healthcare expenditures.
- The group with "no depression" was used as a reference for the analyses.

RESULTS

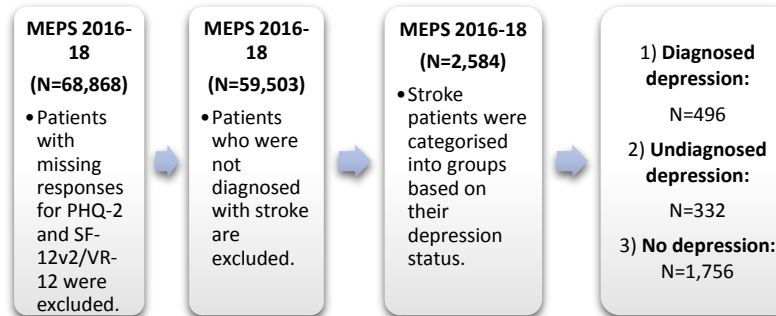


Table 1 : Adjusted parameter estimates for stroke patients with varying depression status from linear regression on PCS and MCS data.

DEPRESSION STATUS	PCS	p-value	MCS	p-value
Diagnosed depression	-3.51	<0.0001	-9.90	<0.0001
Undiagnosed depression	-5.27	<0.0001	-14.38	<0.0001
No depression	Reference	-	Reference	-

Table 2 : Incremental total medical expenditures by depression status among stroke patients, adjusted for relevant co-variables (2018-dollar value)

DEPRESSION STATUS	INCREMENTAL COST (\$)	(95% CI)	p-value
Diagnosed depression	4576	(123 ; 9032)	0.044
Undiagnosed depression	4409	(-984 ; 9802)	0.109
No depression	Reference	-	-

CONCLUSION

- Undiagnosed depression in stroke patients is associated with lower HRQoL and higher healthcare costs.

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