Cognitive impairment in stroke patients five years post-stroke is associated with anxious and depressive symptoms in family members

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Background

Family members frequently assume the primary responsibility for providing long-term care and support to patients with stroke, which can lead to emotional, financial, and social strains.^{1,2} Caregivers of patients with stroke experience elevated levels of anxiety and depression, which can adversely affect stroke patient recovery.^{2,3} Psychological distress tends to decrease in the longer term post-stroke, as family members adapt to their roles and stroke patients improve functionally.^{1,2} However, cognitive decline, which is common post-stroke and can progress indefinitely,⁴ significantly impacts levels of caregiver depression and anxiety.⁵ Many longer-term caregivers of stroke patients therefore continue to face unmet needs years after the initial stroke, highlighting the need for routine and repeated assessments of caregiver wellbeing.³

Aim

The aim of this study was to explore the association between cognitive impairment in stroke patients and anxious or depressive symptoms in family members five years post-stroke.

Methods

As part of a five-year follow-up of the Action on Rehabilitation and Secondary Prevention Interventions in Stroke (ASPIRE-S) cohort of stroke patients, family members completed a self-report questionnaire.^{5,6} Symptoms of anxiety and depression were assessed using the Hospital Anxiety and Depression Scale – Anxiety subscale (HADS-A scores ≥ 8), and the Center for Epidemiologic Studies Depression scale (CES-D scores ≥ 16), respectively. Cognitive impairment in stroke survivors was assessed using the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE scores ≥ 3.3).

Results

77 family members participated, of whom 71 completed the HADS-A, and 51 the CES-D. Family members were spouses/partners of stroke patients (n=49, 63.6%), adult children (n=22, 38.6%) or siblings (n=6, 7.8%). The majority was female (n=62, 80.5%) (Table 1).

Depressive symptoms were evident in 25.5% of family members, with 19.7% reporting symptoms of anxiety. Twenty-two stroke patients (29.0%) were identified as having evidence of cognitive impairment. Family members of stroke patients with cognitive impairment were significantly more likely to report symptoms of depression [age-adjusted OR (95% CI): 6.80 (1.65, 28.04)] or anxiety [age-adjusted OR (95% CI): 5.99 (1.62, 22.15)] than family members of patients without evidence of cognitive impairment (Table 2).

Table 1. Profile of family members of stroke patients 5 years post-stroke

	n (%)
Age (M, SD) (n=74)	59.0 (16.1)
Sex	
Male	15 (19.5)
Female	62 (80.5)
Relationship to stroke patient	
Spouse/partner	49 (63.6)
Sibling	6 (7.8)
Adult child	22 (28.6)
Symptoms of anxiety (n=71)	
Anxious symptoms	14 (19.7)
None	57 (80.3)
Symptoms of depression (n=51)	
Depressive symptoms	13 (25.5)
None	38 (74.5)
Stroke patient cognitive impairment	
Cognitive decline	22 (29.0)
No decline	54 (71.0)
Stroke patient age (M, SD)	68.8 (12.3)

Table 2. Age-adjusted ORs (95% CI) for logistic regression models of depressive and anxious symptoms of family members, based on stroke patient cognitive decline

	Depressive symptoms aOR (95% CI)	Anxious symptoms aOR (95% CI)
Cognitive decline	6.80 (1.65, 28.04)**	5.99 (1.62, 22.15)**
Model	$X^2(2)=8.69$, $p=.013$, pseudo $R^2=0.1533$, $n=49$	$X^2(2)=10.53$, $p=.005$, pseudo $R^2=0.1523$, $n=68$

** $p<.01$

Conclusion

Cognitive impairment in stroke patients continues to be associated with depressive and anxious symptoms in family members in the longer term. Family members play a key role in the care and rehabilitation of stroke patients; enhancing their psychological wellbeing and identifying ways to address these unmet needs is essential.

References

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