The course of anxiety symptoms in the 24 months after start of stroke rehabilitation

Desi CM Stokman-Meiland MD[1], Diana M Oosterveer MD PhD[1,2,3*], Aleid de Rooij PhD[1,3], Henk J Arwert MD PhD[1,4], Jorit JL Meesters PhD[1,5], Thea PM Vliet Vlieland MD PhD[1,3]*

[1] Basalt Leiden/The Hague, The Netherlands
[2] Department of Rehabilitation, Alrijne Hospital, Leiden, The Netherlands
[3] Department of Orthopaedics, Rehabilitation and Physical Therapy, Leiden University Medical Center, Leiden, The Netherlands
[4] Department of Rehabilitation, Haaglanden Medical Center, The Hague, The Netherlands
[5] Haagse Hogeschool, The Hague, The Netherlands
* *These authors contributed equally to this work*

Background

Anxiety in patients with stroke is common and has a negative impact on quality of life. Nevertheless, previous research described that anxiety symptoms might be underdiagnosed and undertreated.

Objective

To describe the course of anxiety symptoms post-stroke using trajectories, and its association with psychological care and unmet needs.

Methods

Patients Patients with stroke who received inpatient or outpatient stroke rehabilitation at Basalt, that were able to complete Patient-Reported Outcome Measures (PROMs) in Dutch.

PROMs Patients completed the Hospital Anxiety and Depression Scale (HADS) at 3, 6, 12 and 24 months after start of rehabilitation; 1 item about psychological care at 6, 12 and 24 months; and the Longer-Term Unmet Needs after Stroke at 12 months after start of rehabilitation.

Statistics Prevalance of anxiety symptoms (HADS anxiety subscale ≥8) was computed at each time point. In patients with complete HADS data at all time points, Chi Square and Kruskal Wallis tests were used to compare patients within three different trajectories of anxiety symptoms: no (all times <8), non-consistent (1-3 times ≥8) or persistent (all times ≥8) anxiety symptoms.

Table 1 Sociodemographic and clinical characteristics of the 690 included patients with stroke and the 384 patients with anxiety data on all time points (3, 6, 12 and 24 months post-stroke)

Characteristic	All included patients		Patients with anxiety data on all time points	
	N		N	
Female sex	690	260 (37.7%)	384	148 (38.5%)
Age *in years*	683	63 (55-70)	380	64 (56-70)
Ischemic stroke	683	541 (79.2%)	382	316 (82.7%)*
Living alone	661	176 (26.6%)	377	98 (26.0%)
Paid employment	535	304 (56.8%)	304	174 (57.2%)
Alcohol >2 a day	652	65 (10.0%)	370	34 (9.2%)
Smoking	656	200 (30.5%)	372	100 (26.9%)*
Hypertension	649	318 (49.0%)	378	187 (49.5%)
Diabetes Mellitus	655	113 (17.3%)	376	64 (17.0%)
Previous myocardial infarction	651	68 (10.4%)	376	36 (9.6%)
Start with inpatient rehabilitation	690	547 (79.3%)	384	296 (77.1%)
Barthel Index *of inpatients only*	421	15 (11-19)	225	17 (12-19)

Characteristics are described in numbers (N) with percentages or medians with interquartile ranges. *Significant difference between patients with and without anxiety data on all time points found with Chi Square or Mann Withney U test.

Results

Patients and prevalence of anxiety symptoms
690 patients were included (Table 1). At 3, 6, 12 and 24 months after start of rehabilitation, 36/612 (22.2%), 129/586 (22.0%), 125/548 (22.8%) and 96/487 (19.7%) patients reported anxiety symptoms, respectively.

Trajectories Of the 384 patients with complete data, there were 64.6% patients with no anxiety symptoms, 25.3% with non-consistent anxiety symptoms, and 10.2% with persistent anxiety symptoms. There were differences in sex and age between the three groups: in the no anxiety trajectory there were 35.1% females, non-consistent anxiety trajectory 40.2% and persistent anxiety trajectory 56.4% females (p=0.036). The median age of the patients in each trajectory was 65 (IQR 58-70), 62 (IQR 53-69) and 60 (IQR 52-70) years, respectively (p=0.030).

Psychological care and unmet needs A minority of patients with non-consistent (16-25%) or persistent anxiety symptoms (21-40%) had psychological care (Table 2). They had more often an unmet need related to mood (16.8% and 31.6% versus 1.2%).

Table 2 Use of psychological care and presence of unmet needs in patients within different trajectories of anxiety symptoms

	No anxiety symptoms (N = 248)		Non-consistent anxiety symptoms (N = 97)		Persistent anxiety symptoms (N = 39)		*p*-value
	N		N		N		
Psychological care							
Psychological care 6 months	245	12 (4.9%)	95	15 (15.8%)	38	8 (21.1%)	**<0.001**
Psychological care 12 months	247	15 (6.1%)	95	24 (25.3%)	37	13 (35.1%)	**<0.001**
Psychological care 24 months	245	16 (6.5%)	95	19 (20.0%)	38	15 (39.5%)	**<0.001**
Unmet Needs							
Number of unmet needs	220	0 (0-1)	74	1 (0-3)	28	3 (1-5)	**<0.001**
Unmet need related to mood	247	3 (1.2%)	95	16 (16.8%)	38	12 (31.6%)	**<0.001**

Characteristics are described in numbers (N) with percentages or medians with interquartile ranges. Unmet needs were measured with the LUNS at 12 months after start of rehabilitation. p-values are given of the Chi Square or Kruskal-Wallis test, depending on the nature of the data.

Conclusions

The prevalence of post-stroke anxiety symptoms remains around 20%. Persistent anxiety symptoms were found in 10.2% with only a minority receiving psychological care.

Clinical message and added value for patients

Optimization of screening and treatment of anxiety symptoms seems of value.

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basalt in beweging
d.stokman@basaltrevalidatie.nl
d.oosterveer@basaltrevalidatie.nl

More information basaltrevalidatie.nl/score