

What Social Inequalities of Quality of Life (NEWSQOL domains) amongst survivors does appear two years after a stroke?

Michèle BAUMANN, Kàtia LURBE I PUERTO, Etienne LE BIHAN
Research Unit INSIDE, University of Luxembourg

BACKGROUND

The quality of life “capability” must be taken into consideration because it affects stroke survivors’ ability to make health choices. We aimed to analyse the relations between their socio-demographic characteristics and their quality of life (domains selected: interpersonal relationship, emotions, feelings, pain, sleep, fatigue).

METHODS

Two years after their stroke, 72 volunteers of which 53% male (age mean 65 years; SD 13,9) and 1/5 had $\geq 12^{\text{th}}$ grade secondary level, agreed to sign an inform consent to participate at the Luxembourg stroke survey. Completed at their home, the questionnaire included the six NEWSQOL* domains that responded to the criterion of an absence of direct consequence of the injuries caused by the stroke.

For each domain, a multiple regression model was fit and adjusted by impairments (motor, vision, sensory, language, memory). We performed a backward selection discarding, in succession, variables associated with highest p-values, until we obtained a set of explanatory variables significantly linked at the 10% level.

RESULTS

After the stroke, for ¼ of the survivors their financial and professional situation changed. To be a woman is positively linked to a better quality of life (interpersonal relationships, feelings, sleep). The older stroke survivors and the ones living in couple have a less good quality of life with regards to fatigue. The current professional situation does not have any impact on quality of life; which is not the case for the occupation at the time of the stroke. Compared to the executives’ ones, the stroke survivors who never had a job, employees, and manual workers have a worse quality of life in terms of feelings. The manual workers, employees and the

ones who never had a job show a minor good quality of life in relation to fatigue. When the individual educational level is lower than the first cycle of secondary education, their quality of life deteriorates in terms of interpersonal relationship, emotion, feelings, pain. After the stroke, changes in the financial position resulted in a less good quality of life in relation to interpersonal relationship, feelings, pain, sleep, whilst the changes in the occupational situation only worsened patients’ feelings and fatigue. “Feelings” (depression, control, independent) is the most associated NEWSQOL-domain with the socio-economic factors.

Relations between dimensions of quality of life of patients (NEWSQOL) and socio-demographic, impairment (no shown), changes in circumstances due to stroke (multiple regression).

		%	Interpersonal relationships [0;100]+		Feelings [0;100]+		Emotion [0;100]+		Pain [0;100]+		Fatigue [0;100]+		Sleep [0;100]+	
			β	p	β	p	β	p	β	p	β	p	β	p
Gender	Female	47.2	7.3	0.0348*	19.3	0.0014**							11.0	0.0448*
	Male	52.8	0	0									0	
Age	50 and less	16.7									46.0	0.0012**		
	51-60	18.1									42.9			
	61-70	27.8									26.3			
	71-80	25.0									19.7			
	81 and higher	12.5									0			
Couple (married or cohabiting)	Yes	74.6	-7.7	0.0641							-18.0	0.0097**		
	No	25.4	0								0			
Level of education	Primary Level	22.5	-5.8	0.0300*	-17.0	0.0226*	-26.3	0.0052**	-17.0	0.0098**				
	First cycle of secondary education	33.8	-9.1		-11.5		-17.4		-13.2					
	High vocational	21.1	5.6		6.6		-1.6		9.4					
	High school leaving certificate / university degree	22.5	0		0		0		0					
Current position	Job	13.9											14.1	0.0614
	At home, no occupation	19.4											-1.0	
	In retirement or early retirement	55.6											15.7	
	Other	11.1											0	
Occupation at the time of stroke*	Never worked	16.2			-31.1	0.0118*					-12.2	0.0290*		
	Worker	35.3			-6.6						-21.8			
	Employee	22.1			-13.8						-17.4			
	Manager	26.5			0						0			
Change in employment status due to stroke	Yes	23.2			-18.1	0.0129*					-24.4	0.0017**		
	No	76.8			0						0			
Change in financial position because of the stroke	Yes	22.5	-14.8	0.0010**	-14.1	0.0471*			-21.8	0.0025**			-21.7	0.0001***
	No	77.5	0		0				0				0	

* : for the unemployed, pensioners and persons in vocational training at the time of the stroke, it is the last occupation.

CONCLUSIONS

Individual level of education and the changes in their financial position are determinants of social inequalities of quality of life amongst stroke survivors. A better elementary health education on stroke would make upcoming stroke survivors to gain in quality of life capacity. They will better adhere to the advice given within the therapeutics framework and psychological counseling as well as to the social accompaniment provided and the administrative requirements they have to accomplish in order to obtain financial aids.

*Buck D, Jacoby, Massey A, Steen N, Sharma A. (2004). Development and Validation of NEWSQOL, the Newcastle Stroke-Specific Quality of Life Measure. *Cerebrovascular Diseases* 17: 143-152.