

Coping with epilepsy: the effect of coping styles on self-perceived seizure severity and psychological complaints

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Having a chronic condition like epilepsy imposes a serious burden for the sufferer. This is reflected in a higher level of psychological complaints. The way in which one copes with epilepsy is an important determinant in this level of complaints and in the self-perceived severity of the seizures. In this paper the relation between coping styles and self-perceived seizure severity as well as psychological complaints, is studied. A group of epilepsy patients was asked to fill out a number of questionnaires on coping styles, self-perceived seizure severity and psychological complaints. The patients with epilepsy were seen to have coping styles different from the general population: in general they tended to use less active strategies in coping with their problems. A less active coping style was found to be related to a higher self-perceived seizure severity. Other epilepsy-related variables, like seizure frequency, showed no relation with self-perceived seizure severity. This could mean that stimulating patients to use active coping styles results in a decrease in self-perceived seizure severity.

Key words: seizure severity; coping styles; psychological complaints.

INTRODUCTION

The prevalence of epilepsy is being estimated at 1 in 125 to 200 people¹. Despite the effectiveness of antiepileptic drugs 40% of these are unsatisfactorily controlled by pharmacological therapy². This means that in 1 in 300 to 500 people epilepsy becomes a chronic condition. Having a chronic condition with associated medical and neurological handicaps, the difficulties of prolonged drug treatment and the psychological problems associated with chronic illness have an important impact on one's quality of life^{3–5}. This is reflected in a higher incidence of anxiety and depression in people with epilepsy^{6–9}. There is, however, a great variability in the extent to which one experiences these difficulties⁴.

In adjusting to this chronic condition the method of coping with epilepsy seems to be a determinant significant in the self-perceived severity of the seizures^{10–12}. In the literature on coping, various styles are reported related to psychological, physical and social well-being^{13–16}. Usually three categories are described: cop-

ing styles directly aimed at the problem, styles directed at the appraisal of the situation by, for instance, utilizing comforting cognitions, and symptom-directed palliative modes of coping leading to reduction of arousal¹⁷. The choice of coping strategy is determined by personal characteristics, the social environment and, probably most important, by the nature of the stress that it is aimed against¹⁷. The effectiveness of these coping strategies depends upon its appropriateness for the particular stressor. Emotion-directed coping, like palliative strategies and the use of comforting cognitions, seems to be most effective in situations when the stressful situation is an unalterable one³.

The aim of this study is to investigate the relation between coping styles and the subjectively experienced severity of having seizures, and the relation between coping styles and psychological complaints. We also aim to explore the efficacy of the several coping strategies and to compare the relative contribution of coping style to psychological adjustment, compared with variables traditionally used in epilepsy research, like seizure frequency.

Table 1: Overview of UCL and SCL-90 subscales and their measuring objective.

Instrument	Subscales (number of items)	Measuring objective
UCL	Active approach (7)	Taking time to evaluate a problem situation and using active and goal-directed problem solving behaviour
	Palliative reactions (8)	Seeking diversion in order not to have to think about the problem, trying to feel better by relaxing, smoking or drinking
	Avoiding (8)	Avoiding the problem situation, waiting to see what happens
	Seeking social support (6)	Sharing the problem with other people, seeking comfort and understanding
	Depressive reaction (7)	Letting oneself be swamped by the problem, seeing the negative side of it, being helpless
	Expression of emotions (3)	Showing anger and frustration, abreaction of emotions
SCL-90	Comforting thoughts (5)	Comforting oneself with thoughts like 'things will get better', 'other people also have their problems', 'things could be worse'
	Fear (10)	Generalized fear and arousal
	Agoraphobia (7)	Phobic fear of open spaces, public places, fear of losing control over oneself
	Depression (16)	Depressive symptoms
	Physical complaints (12)	Physical complaints associated with stress
	Insufficiency of thought (9)	Problems in cognitive functions
	Interpersonal sensitivity (18)	Dissatisfaction with oneself in relation with others
	Hostility (6)	Feelings of anger, hostility and aggression
Complaints of sleep (3)	Problems of initiating and maintaining sleep	

Table 2: Mean scores (X) and standard deviations (SD) of patients with epilepsy and the general population on UCL scales.

Subscale	Male		t	Female		t
	Epilepsy patients $N = 22$ X (SD)	General population $N = 1071$ X (SD)		Epilepsy patients $N = 30$ X (SD)	General population $N = 712$ X (SD)	
Active approach	18.6 (4.1)	18.4 (3.6)	0.36	16.6 (3.8)	19.3 (5.1)	-3.86*
Palliative reactions	18.7 (4.4)	15.3 (3.6)	4.26*	19.2 (3.7)	17.3 (6.1)	2.80†
Avoiding	15.0 (5.3)	14.7 (3.3)	0.31	13.2 (5.2)	15.5 (6.0)	-2.06†
Seeking social support	12.9 (3.6)	11.0 (2.9)	2.87†	14.4 (3.9)	14.5 (4.9)	-0.09
Passive reactions	11.7 (3.1)	10.5 (2.9)	2.09†	13.1 (3.4)	10.9 (5.4)	3.7*
Expression of emotions	5.7 (1.7)	6.2 (1.7)	-1.39	6.4(2.1)	6.4 (2.3)	—
Comforting thoughts	13.3 (3.3)	11.5 (2.5)	2.99†	13.1 (3.4)	12.1 (3.8)	1.67

* $P < 0.01$; † $P < 0.05$.

MATERIALS AND METHODS

For this study, randomly selected out-patients of the local epilepsy centre were asked to cooperate. Criteria for inclusion in the study were a positive diagnosis of epilepsy, an age of 18 years or older and having an at least average intelligence as estimated by the neurologist. Besides basic demographic data like age and sex, epilepsy-related data were collected: seizure frequency, duration of epilepsy and epilepsy type. The patients participating in the study were given a number of self-report questionnaires to fill out.

To assess coping styles employed by the subjects the Dutch questionnaire 'Utrechtse Coping Lijst' (UCL) consisting of 44 items was used, based on a questionnaire by Westbrook^{18,19}. Subjects were asked to rate how frequently they used the coping style described in the item on a 4-point scale, ranging from 'never or hardly ever' to 'very often'. Total scores were the computed for each of the seven scales in the questionnaire (Table 1).

Psychological complaints were assessed with the Symptom Check List (SCL-90)^{20,21}. This is a 90-item questionnaire asking subjects to rate on a 5-point scale, ranging from 'not at all' to 'very much', how much they

were troubled by various psychological and psychophysiological complaints in the previous week. Eight subscales were computed (Table 1).

Self-perceived seizure severity was rated by the subjects with a translation of the seizure severity scale²², a 19-item scale that describes several aspects of having epilepsy and asks the subject to rate each aspect on a 4-point scale.

Statistical analysis

Several descriptive statistics of the data collected were computed. The scale scores of the questionnaires were calculated and compared by means of t -tests with the values of the general population given in the questionnaire manuals. The relation between coping style, epilepsy-related variables and self-perceived seizure severity was studied using regression analysis.

RESULTS

Of the 70 subjects participating in the study the questionnaires of 30 men and 31 women could be processed. Their mean age was 41.2 years. Sixteen of the subjects were seizure-free in the 4 weeks preceding

Table 3: Mean scores (X) and standard-deviations (SD) of patients with epilepsy and the general population on SCL-90 scales.

Subscale	Male			Female		
	Epilepsy patients $N = 29$ X (SD)	General population $N = 432$ X (SD)	t	Epilepsy patients $N = 31$ X (SD)	General population $N = 577$ X (SD)	t
Fear	14.7 (4.9)	13.0 (4.3)	1.97	18.6 (7.1)	14.6 (5.7)	3.11 [†]
Agoraphobia	9.0 (3.0)	7.9 (2.1)	1.94	10.9 (4.0)	8.7 (3.4)	3.06 [†]
Depression	24.3 (7.8)	20.7 (6.3)	2.50 [†]	31.6 (12.9)	23.8 (8.6)	3.35 [†]
Somatic complaints	18.4 (5.7)	16.6 (5.7)	1.65	22.4 (7.8)	18.7 (7.1)	2.65 [†]
Insufficiency in thought and action	18.9 (7.2)	13.2 (4.6)	4.24*	20.0 (6.8)	14.1 (5.1)	4.85*
Interpersonal sensitivity	28.5 (9.5)	24.6 (6.8)	2.20 [†]	34.5 (13.6)	26.3 (8.8)	3.37 [†]
Hostility	8.3 (2.4)	7.5 (2.5)	1.81	10.5 (4.8)	7.6 (2.4)	3.38 [†]
Insomnia	4.7 (2.4)	4.6 (2.4)	0.15	5.8 (3.5)	5.2 (2.8)	1.01

* $P < 0.01$; [†] $P < 0.05$.

Table 4: Stepwise multiple regression analysis.

	R^2	delta R^2	Beta
Self-perceived seizure severity as dependent variable			
Coping strategy active approach	19.3	19.3	-0.461*
Seizure frequency	35.3	15.9	-0.400 [†]
Psychological complaints as dependent variable			
Coping strategy depressive reaction	47.7	47.7	0.690*
Coping strategy palliative reaction	58.7	11.1	-0.336*
Coping strategy active approach	79.8	4.9	-0.248 [†]

* $P < 0.01$; [†] $P < 0.05$.

the study. Of the people having seizures in this period the average seizure frequency was 11.3 (SD 16.4). The average seizure frequency of the total group was 7.9 per 4 weeks (SD 14.6). The people in the study had suffered from epilepsy for, on average, 19 years (SD 14.1, range 2–53).

On the coping questionnaire male epilepsy, patients showed higher scores than the general population on the subscales of palliative reactions, avoiding seeking social support and the use of comforting thoughts. Female patients had lower scores on the subscale of 'active approach' (Table 2).

Male patients show significantly higher scores on the Symptom Check List subscales of depression, insufficiency in thought and action and interpersonal sensitivity. Female patients show higher scores on the same subscales, as well as on fear, agoraphobia, somatic complaints and hostility. The scores mentioned above are also clinically significant (Table 3).

The coping style 'active approach' showed a significant negative correlation with self-perceived seizure severity ($r = -0.53$, $P < 0.01$). The correlation found between seizure frequency and self-perceived seizure severity was not statistically significant. Stepwise multiple regression analysis showed the coping style 'active approach' to explain 19.3% of the variance in self-perceived seizure severity, whereas seizure frequency explained 15.9% of the variance. The variance in the total amount of psychological complaints was best explained by the coping styles: 'depressive reaction'; 'palliative reaction' and 'active approach' (Table 4).

No association was found between the other UCL and SCL subscales of duration of the condition and self-perceived seizure severity.

DISCUSSION

The patients with epilepsy show coping styles different from the general population. Male patients tended to tackle problems by palliative reactions, like seeking diversion, trying to feel better by smoking, drinking or relaxing, by avoiding problematic situations, seeking social support or by using comforting thoughts, like encouraging oneself by making negative comparisons or saying that things eventually will get better. Female patients with epilepsy differ from the general population by a less active approach of problems.

A higher expectation of a level of psychological complaints than in the general population, as mentioned by other authors, was confirmed in the population of this study. It was interesting to see, however, that no relation was found between epilepsy-related variables, like seizure frequency and psychological complaints.

The coping style 'active approach', characterized by taking time to evaluate a problem situation and using actively goal-directed problem-solving behaviour, was negatively correlated with self-perceived seizure severity. Regression analysis showed an explained variance of 19% in self-perceived seizure severity by the active coping style. It is interesting to see that the factor that is supposed to be most important in the subjective experience of the seizures, i.e. the seizure frequency, seems to be of less significance in the data presented here.

The consequence of these findings is that the way one copes with problems like epilepsy seems to be of as much importance in the treatment of epilepsy as seizure frequencies. The lack of association between seizure frequency and the level of psychological complaints, and the less important role of seizure frequency in the explanation of subjective seizure severity, could mean that it is in doubt whether seizure frequency is the only key variable in the treatment of epilepsy.

The implication of this on clinical practice could be that coping styles should become a focus of treatment. The negative association between the coping style 'active approach' and subjective seizure severity could imply that stimulating patients to take part actively in the treatment of their epilepsy, for instance, by introducing self-management strategies as an integral part of the treatment of epilepsy, could influence subjective seizure severity in a positive way.

In interpreting these data caution should be taken in generalizing the results. Only a small group, possibly not representative for the total population of patients with epilepsy was studied. Nevertheless, the relevance of the findings may be that seizure frequency was found not to be the most important factor in the explanation of self-perceived seizure severity. Also, it might suggest that in the treatment of epilepsy, care should be taken to create opportunities for patients to participate actively in their own treatment. Patient empowerment could be a new motto for better epilepsy care.

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