## Quality of life in childhood epilepsy

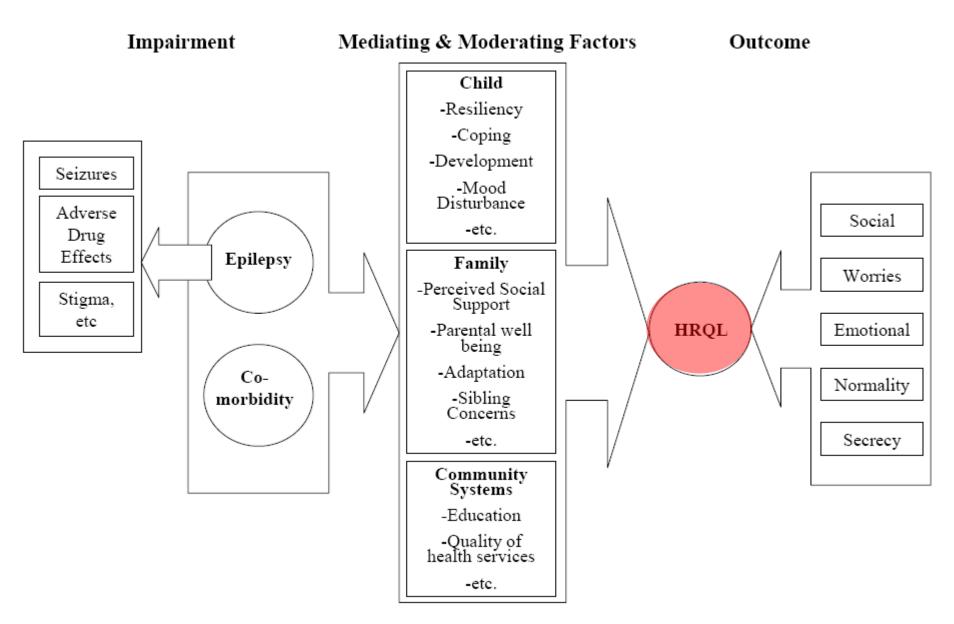
Lieven Lagae Department of Paediatric Neurology University Hospitals KULeuven Belgium

## **Quality of life determinants in epilepsy**

- Seizures and syndromes
- Side effects of treatment
- Co-morbidities :

behavioural and psychiatric problems

- Cognitive and learning problems
- Everyday life 'adjustments', activities in daily life



Ronen GM et al, 2003



Available online at www.sciencedirect.com



Epilepsy & Behavior 12 (2008) 395-401



www.elsevier.com/locate/yebeh

#### Perceived impact of epilepsy in teenagers and young adults: An international survey

Gus A. Baker<sup>a,\*</sup>, Eric Hargis<sup>b</sup>, Marshall Mo-Song Hsih<sup>c</sup>, Hilary Mounfield<sup>d</sup>, Alexis Arzimanoglou<sup>e</sup>, Tracy Glauser<sup>f</sup>, John Pellock<sup>g</sup>, Susanne Lund<sup>h</sup>, On behalf of the International Bureau for Epilepsy

<sup>a</sup> Division of Neurosciences, University of Liverpool, Liverpool, UK <sup>b</sup> IBE Secretary General, USA <sup>c</sup> Former Chair, IBE Asia Oceania Regional Committee, Former IBE Vice President, Taiwan <sup>d</sup> Former Chair, IBE European Regional Committee, UK <sup>e</sup> Epilepsy Program University Hospital Robert Debré, Paris, and CTRS-IDEE (Institute for Children and Adolescents with Epilepsy), Lyon, France <sup>f</sup> Comprehensive Epilepsy Program, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, USA <sup>g</sup> Division of Child Neurology, Virginia Commonwealth University, Richmond, VA, USA <sup>h</sup> IBE President

Received 18 September 2007; revised 2 November 2007 Available online 27 December 2007

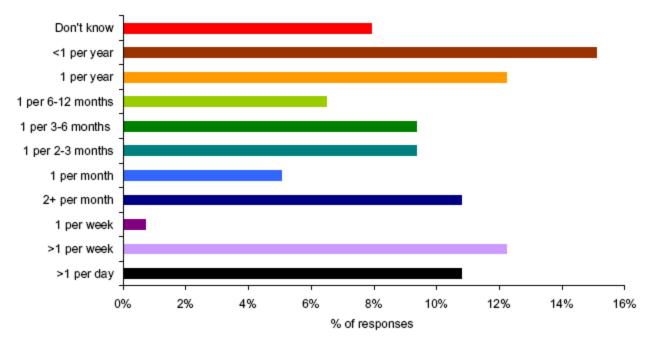


Fig. 1. Distribution of seizure frequency as reported by children and teenagers.

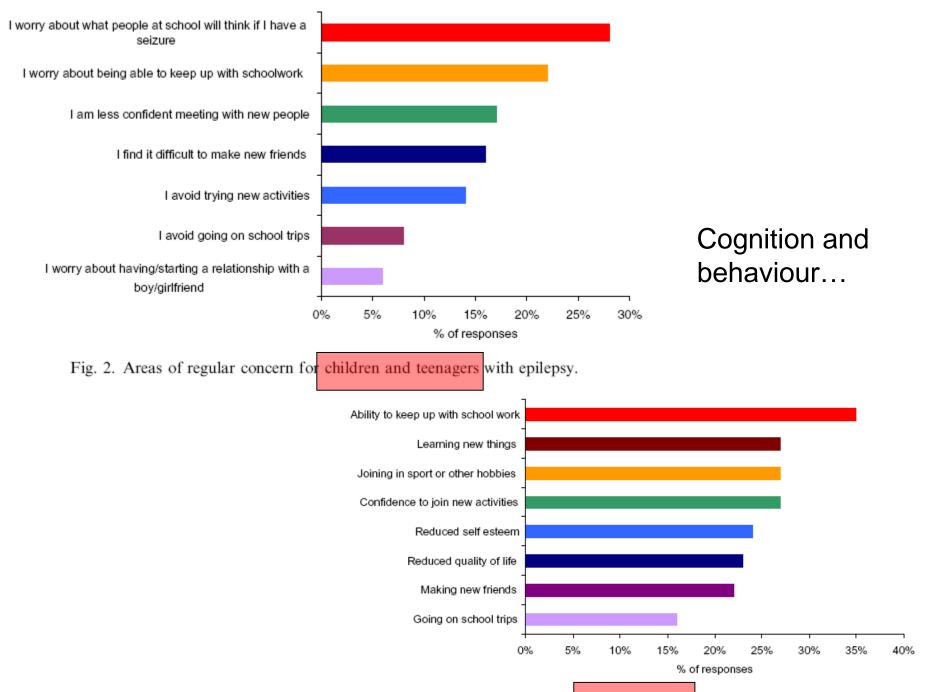


Fig. 4. Areas of regular concern for parents/caregivers of children/teenagers with epilepsy.

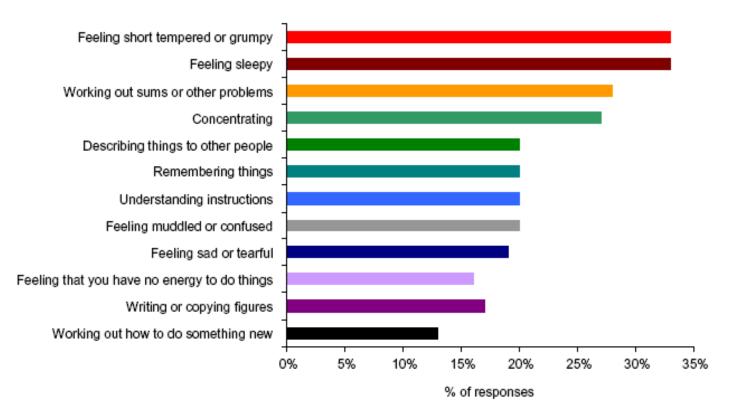


Fig. 3. Common problems reported by children and teenagers with epilepsy.

#### The Hague Side effect Scale

### **TOP 20 QOL**

Item	Number (%) of 108 children reported to have a mild to very serious problem
1. Drowsiness/sleepiness	47 (44%)
2. Dizziness	16 (15%)
<ol><li>Uncertainty when walking</li></ol>	13 (12%)
4. Falling	10 (9%)
5. Sickness	19 (18%)
<ol><li>Difficulty with defecation</li></ol>	18 (17%)
7. Diarrhea	11 (10%)
8. Shaking, trembling	16 (15%)
9. Speech difficulties	14 (13%)
10. Double or blurred vision	9 (8%)
11. Headache	40 (37%)
12. Fatigue	55 (51%)
13. Loss of appetite	28 (26%)
14. Depression	15 (14%)
15. Hyperactivity	32 (30%)
16. Temper tantrums, aggression	37 (34%)
17. Slowness	49 (45%)
18. Poorer school results	39 (36%)
19. Decreased concentration	51 (47%)
20. Behavioral disturbance	25 (23%)

Parental reporting

Children 4-16 years

Epilepsy > 1 year

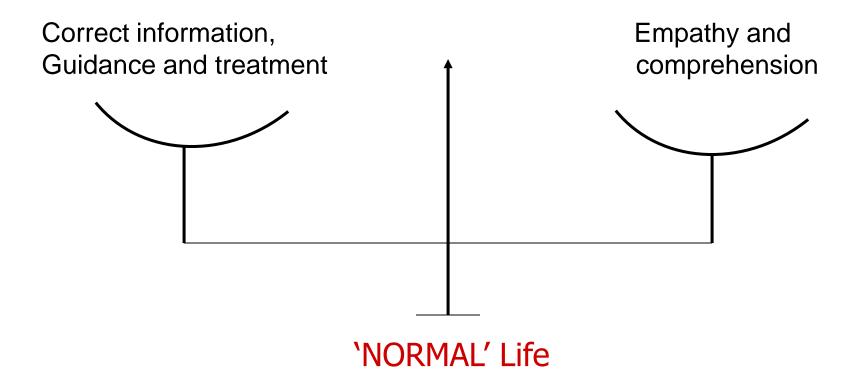
Not seizure free

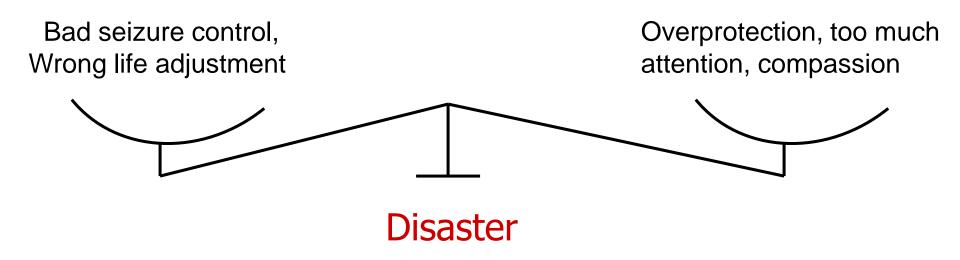
Correlation of score on the HASES with clinical variables in univariate analysis and stepwise multiple linear regression  $(N = 108)^{a}$ 

	Univariate		Multiple	
	rs	Р	regression P	
AED load (PDD/ADD)	0.12	0.21	0.60	
Number of AEDs	0.23	0.16	0.11	
Duration of epilepsy	0.18	0.07	0.33	
Seizure severity	0.30	0.005	<0.001	
Restrictions	0.34	< 0.001	0.23	
Number of seizures last year	0.25	0.01	0.27	
Number of seizures last month	0.23	0.02	< 0.001	

<sup>a</sup>  $r_s$ , Spearman correlation coefficient; PDD, prescribed daily dosage; ADD, average daily dosage of an antiepileptic drug in the study group (in mg/kg).

#### **Reported side effects are related to seizure frequency**





### **1. Information**

- School and teacher should know about the epilepsy
- Explain type and normal frequency of the seizures.
- Explain the provoking factors (believe the parents...)
- Discuss emergency treatment (benzodiazepines)
- Explain that the child might be absent because of seizures
- Discuss exams after convulsive seizures

### 2. Adjustments in the classroom

- What is the best school for the child?
  Epilepsy should not be a reason to refuse children in school
- Not always necessary to put the child 'in focus'
- When attentional problems or learning problems are present
  - Extra remedial teaching
  - Seat in front of the teacher
  - Discuss medication

### 3. Sports

#### In well controlled epilepsy:

swimming allowed with extra supervision

Cycling on the street allowed with extra supervision

Other sports allowed with extra supervision

- Age important factor

- Type of epilepsy : generalized versus partial with aura

## 4. Camps / trips

Because of important social peer contacts, the child with epilepsy should participate !

Be aware

- Compliance medication
- Emergency medication
- Excitement, stress and less sleep can provoke seizures
- Identify local medical service

# 5. Night supervision

- ? SUDEP
- No reliable system available
- Infants with impact of seizures on cardiovascular and respiratory system
- High nr of e-children sleeping in bedroom of parents