

Incorporating patients' perceptions of their health into clinical decision-making processes

In the past two decades, research in epilepsy has shifted from traditional clinical health outcomes such as seizure freedom and number of antiepileptic drugs (AEDs), to more subjective outcomes that incorporate patients' perceptions of their health into clinical decisionmaking. These patient-reported outcomes, which include quality of life (QOL) and other psychosocial outcomes, are important endpoints for assessing effects of interventions in individuals with epilepsy.^[1-3]

While seizure freedom is an important treatment goal in epilepsy (the biomedical model), there is growing evidence that support that mental health and not clinical variables is the factor with greatest impact on QOL in persons with epilepsy. Moreover, previous investigations have found that patients with epilepsy view their main handicaps as psychological rather than purely physical and complain about a lack of counseling and support.^[3]

In this issue of journal of Neurosciences in Rural Practice, Ranjana *et al.* published the paper entitled "The socio-demographic, clinical and pharmacotherapy characteristics influencing QOL in patients with epilepsy: A cross sectional study".^[4] This study was conducted by the Division of Clinical Pharmacology at the outpatient and inpatient Department of Neurology, St. John's Medical Collegue Hospital, Bangalore, over a period of one and half years from January 2012 to July 2013. In the present study the authors addressed in my opinion eight important points in the follow-up of patients with epilepsy taking into account the mental health as the main outcomes. First, significant relationship was observed between QOLIE 10 scores and monthly income <5000 INR (Indian National Rupees); emotional well-being, overall QOL, social function score domains and total QOL score were significantly lower in patients with monthly

income of less than 10,000 INR compared to those who had more than 10,001 up to 20,000 INR ($P < 0.05$). Second, the patients with focal epilepsy exhibited significantly lower scores for emotional well-being, medication effects, overall QOL domains and total scores when were compared with patients with generalized epilepsy. Third, polytherapy regimen of treatment was associated with lower QOL scores specifically in the following domains: Emotional well-being, energy/fatigue, social functioning domains and in the total QOL score. Fourth, the newer AEDs alone or in combinations with older AEDs were related to a higher QOL scores in emotional, energy, medication domains and total QOL score. Fifth, none of the individual AED showed significant association with QOLIE score. Sixth, the seizure frequency and the occurrence of adverse drug reaction were independently stronger factors to predict a poor QOL. Seventh, all of above-mentioned statements related to the measurement of QOL in patients with epilepsy are true when other comorbidity, like anxiety, depressive, or psychotic disorders were rule out. Eighth, no significant relationship was observed between QOLIE 10 scores and demographic characteristics, others different to the low monthly income, and between QOL score and the duration of epilepsy.^[4]

These results have an immediate impact in the decision-making process in patients with epilepsy including the outcomes evaluated in the follow-up of this type of patients. This adds great strength to the results of the present investigation.

According to this study, the majority of predictor factors of QOL in patients with epilepsy without psychiatry comorbidities are modifiable.

Thus, the seizure frequency can be modified by using an appropriated medication for the type of seizure and epileptic syndrome, considering comorbidities, gender and age of the patients.^[5-7] All patients should be treated in monotherapy regimen, this strategy alone could improve the QOL score, but if polytherapy regimen is necessary, then the results lead to the use of a combination of newer AEDs or the association of older

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AEDs with a newer AEDs. Now, the body of evidence suggests that the occurrence of adverse drug reaction could be reasonably predicted.^[5] This is especially true for skin reactions caused by old AEDs and for those side effects related with the pharmacokinetic mechanism of the AEDs.^[4,5] According to this, a rational use of AED can improve the QOL score.

Taking into account the results of the present study, two predictors of QOL in patients with epilepsy are less or no modifiable at all, such as the monthly income and the type of epilepsy but again this factor could be minimized choosing the appropriated AEDs. Older AEDs are, in general, cheaper than newer AEDs.^[5] That is why, for the patients with low monthly income, especially those who live in the low income countries, newer AEDs are hardly to achieve. Nevertheless, Ranjana *et al.* did not find that this factor predict poor QOL in the multivariate analysis. Thus, what Ranjana's study shows is that it is more important to control or reduce the seizure frequency, avoiding or minimizing side effects than use the newer AEDs in patient who are not able to achieve them because of their low monthly income. In the other hand, the epilepsy type is not a modifiable factor, but once again the Ranjana's study addressed that it was not a predictor of QOL score in the multivariable analysis.

I recommend to clinicians who are dedicated to treat patients with epilepsy to read this paper carefully. It constitutes itself a genuine guideline in the management of patients with epilepsy. The reader can conclude a lot of points after accurately reading of the paper. If the reader do that, then they should stop to say that the problem of epilepsy treatment is limited to treat with carbamazepine patients with focal epilepsies and with valproic acid those with generalized ones because

those medications are very effective in these epilepsy syndromes. Nevertheless, it is clear that treat patients with epilepsy exceed the abovementioned simplistic point of view.

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