# HEALTH STATUS PERCEPTION IN PATIENTS WITH EPILEPSY

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Epilepsy;

health perception;

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## Abstract

Research indicates that seizure disorders and epilepsy are often associated with a variety of psychological and social problems resulting in negative effects on quality of life and wellbeing. Epilepsy therapy may be prolonged, and a cure is not always attainable. Self- evaluations of health status have been shown to predict morbidity and mortality. For the reasons, health status perception is important health care outcomes and assessing this variable may ascertain the magnitude of the problem as a part of the systematic approach to challenges in epilepsy management. In present study we assessed and compared health status perception in patients with epilepsy and healthy controls. It was a cross-sectional study in which 30 patients with epilepsy along with 30 age and sex matched healthy controls were recruited and studied. Result indicates that patients with epilepsy have significant less health status perception (physical and mental health).

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## 1. Introduction

Epilepsy is the name for a group of functional disorders of the brain, characterised by repetitive seizures, caused by abnormal, excessive electric discharges of the nerve cells or neurones in the brain, and diagnosis of epilepsy requires that the patient has had a minimum of two unprovoked seizures more than 24 hours apart [1]. In many parts of the world, epilepsy continues to be viewed as witchcraft, contagious, and possession by devils and ancestral spirits [2]. In addition, many individuals living with epilepsy are faced with lifestyle limitations, medication side effects, neuropsychological deficits, and social stigma. Thus, not surprisingly, people with epilepsy report higher levels of psychological distress than those without seizures [3].Though attitudes toward people with epilepsy have improved over the years, for many people with epilepsy; stigma continues to adversely impact their psychological well-being and quality of life. People living with epilepsy continue to suffer from enacted or perceived stigma that is based on myths, misconceptions, and misunderstandings that have persisted for many years. Studies shows that people with epilepsy perceive a stigma due to feeling different from the rest of society, meaning that they conceal their condition as a way of managing such stigma and thus need to renegotiate their social identity [4].

General health perceptions (perceived health) are people's own beliefs about their health status. They do not focus on either physical or mental health specifically; rather, they indicate thoughts and feelings about health in general, taking into account the individual's experiences, values, needs, and attitudes. Areas that may impair patients' perceptions of their health were the fear of seizures and the fear of discrimination. Measuring health status is a complex process that requires the use of indicators that evaluate health both in terms of disease and of the impact the health-disease- care process has on the quality of life [5]. And also the perception of health status by the individual is a more significant indicator than clinical indicators. Researchers use this indicator to understand the value the individual assigns to health [5].

Recent research indicates that people's perceptions of themselves (and of their medical condition) bear stronger relationships to quality of life than more objective indices such as seizure frequency or seizure type. The association between negative self-perceptions and epilepsy has been related to the concept of stigma, although a perceived (or "felt") stigma appears to be a more important self-esteem depressant than actual instances of discrimination (or "enacted"

stigma). In a study by Scambler, people with epilepsy recalled how a physician's diagnosis of their condition transformed them from normal persons to epileptics, this diagnosis carrying with it a distressing transformation in self-perceptions [6]. Choi-Kwon and colleagues (2003) concluded that psycho-social factors are more important than physical factors in determining QOL [7].

Nevertheless, epilepsy therapy may be prolonged, and a cure is not always attainable. For these reasons, health status perception and quality of life are important health care outcomes. This notion has been readily accepted, and has resulted in an increased amount of research investigation into health status perception, one of the main outcomes of health [8]. There is dearth of literatures and inconclusive results in this area so it was need to assess health status perception in patients with epilepsy.

## 2. Research Method

### 2.1    Aim

To assess and compare health status perception between patients with epilepsy and healthy controls.

### 2.2    Place of study and sampling

This study was conducted in Central Institute of Psychiatry (CIP), Ranchi. CIP is a tertiary referral hospital having bed strength of 643. It is a postgraduate teaching institute and imparts training in psychiatry, clinical psychology, psychiatric social work and psychiatric nursing. It was hospital based cross-sectional study with purposive sampling. 30 patients with epilepsy aged from 18 years to 50 years and matched healthy controls were taken.

### 2.3    Procedure

Written informed consent was taken from all the participants. Only those fulfilling the inclusion and exclusion criteria were selected for the study. Socio-demographic and clinical data were taken first. All subjects screened for anxiety and depression with the use of Hamilton Rating Scale for Depression and Hamilton Anxiety Scale. After assuring them regarding the anonymity of the results; questionnaires (General Health Questionnaire-12) and SF-12 were administered.

Though, all the questionnaires will be self-administered for the sake of clarity instructions were read out to them. The subjects were requested to fill the questionnaire on the same day but if due to some earlier commitment, they showed their inability for doing so, an average time of three days will be allotted to them for the same. The questionnaires were then scored according to the scoring keys or the procedure given in the manual.

## 2.4 Statistical analysis

Appropriate statistical analysis was used for data analysis using SSPS 20.0. Nominal data such as socio-demographic and clinical profile were assessed and compared using chi- square. For data on ratio scale were assessed and compared by use of t- test analysis.

## 3. Results and Analysis

**Table-1: Comparison of age between patients with epilepsy and healthy controls**

| Variable | Patient group (N =30) Mean ±SD | Control group (N =30) Mean ± SD | t | df | p |
|---|---|---|---|---|---|
| Age (in year) | 26.57 ± 6.73 | 27.83 ± 3.90 | .893 | 17 | .524 |

Table-1 represents comparison of age (continuous) between the two groups using independent sample t-test. It shows that there was no significant difference between the groups with respect to age. The mean age of patient group was 26.57 ± 6.73 years. And the control group's mean age was 27.83±3.90 years.

**Table-2: Comparison of various socio-demographic variables between patients with epilepsy and healthy controls (categorical variable)**

| Variables | | Patient group (N=30) n (%) | Control group (N=30) n (%) | $\chi^2$ | df | p |
|---|---|---|---|---|---|---|
| Gender | Male | 23 (76.7) | 21 (70) | .341 | 1 | .559 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Female | 7 (23.3) | 9 (30) | | | |
| Religion | Hindu | 23 (76.7) | 18 (60) | 1.926 | 2 | .165 |
| | Others | 7 (23.3) | 12 (40) | | | |
| Residence | Rural | 12 (40) | 3 (10) | 7.200 | 1 | .007** |
| | Urban | 18 (60) | 27 (90) | | | |
| | Joint | 21 (70) | 21 (70) | | | |
| Family Income (Rs./ Month) | 0-5000 | 16(53.3) | 5(16) | 13.58 | 2 | .001** |
| | 5001-10000 | 7(23.3) | 4(13.3) | | | |
| | >10000 | 7(23.3) | 21(70) | | | |
| Marital status | Unmarried | 15 (50) | 24 (80) | 5.934 | 1 | .015* |
| | Married | 15 (50) | 6 (20) | | | |
| Education | 5-12th | 17 (56.7) | 7 (23.3) | 6.944 | 1 | .008** |
| | > 12th | 13 (43.3) | 23 (76.7) | | | |
| Family hist. of major medical illness | Not present | 28(93.3) | 30(100) | 2.069 | 1 | .150 |
| | Present | 2(6.7) | 0(0) | | | |
| Past hist. of major medical illness | Not present | 30(100) | 30(100) | | | |
| | present | 0(0) | 0(0) | | | |
| Treatment history | Not present | 0(0) | 0(0) | | | |
| | present | 30(100) | 0(0) | | | |
| Functioning | Employed | 17(56.7) | 14(46.6) | .601 | 1 | .438 |
| | Unemployed | 13(43.3) | 16(53.3) | | | |

*significance at <.05 levels (2 tailed)

**significance at <.01 levels (2 tailed)

Table-2 shows comparison of gender, religion, domicile, family income, family type, marital status, education and functioning between patients with epilepsy and healthy control groups. The patient with epilepsy group were mostly male (76.7%), Hindu (76.7%), living in urban area, belonging to joint family, and having low socioeconomic status, educated up to 12th standard or less (56.7%), employed (56.7%) and has no history of major medical illness is patient (100%).

The patient group was significantly belongs to rural area (p<.01), married (p<.05), having less family income (p<.01) and less educated (p<.05). The distribution of gender, religion, family type, family history of major medical illness and functioning were statistically not significant between two groups.

**Table-3: Clinical characteristic of epilepsy group (continuous variable) (N=30)**

| Variable | Mean | Std. Deviation | Minimum | Maximum |
|---|---|---|---|---|
| Age of onset of illness (years) | 16.57 | ±7.491 | 1.0 | 29.0 |
| Duration of illness (years) | 9.87 | ±7.281 | 2.0 | 28.0 |
| Duration of treatment (years) | 4.33 | ±5.307 | 1 | 27 |

Table-3 Shows age of onset, duration of illness, and duration of treatment of epilepsy group. The mean age of onset of epilepsy, duration of illness, and duration of treatment were 16.57 years ±7.49, 9.87 years±7.28, and 4.33 years±5.307 respectively.

**Table-4: Comparison of psychological variables between the two groups (N=60)**

| Variables | Patient group (N =30) Mean ±SD | Control group (N =30) Mean ± SD | t | df | p (sig. 2-tailed) |
|---|---|---|---|---|---|
| SF-12 (PCS) | 25.34(12.23) | 39.11(10.71) | -4.636 | 58 | **.000** |
| SF-12(MCS) | 10.46(8.29) | 30.22(8.14) | -9.311 | 58 | **.000** |

**significance at <0.01 levels (2 tailed)

(Legends- SF-12 (Short-Form 12-Item Health Survey), PCS/MCS- physical/mental composite scale).

Table-4 Shows comparison of physical and mental health between group and normal control group. Independent t- test analysis revealed that the patient with epilepsy has significantly lesser physical health ($p<0.001$) and mental health ($p<0.001$) when compared to healthy control.

**Table-5: Correlation of physical health and mental health with age, age of onset and duration of epilepsy**

| Variables | Age | | Age of onset of epilepsy | | Duration of epilepsy | |
|---|---|---|---|---|---|---|
| | r | p | r | p | r | p |
| SF-12 Physical health | -0.03 | 0.86 | -0.08 | 0.66 | 0.05 | 0.79 |
| SF-12 Mental health | 0.13 | 0.49 | -0.05 | 0.79 | 0.2 | 0.3 |

* Correlation is significant at the $p<0.05$ level (2-tailed).

Table-5 shows Pearson correlation of clinical and psychological variables of patients group with their health perception. Age of participants, age of onset of illness, duration of illness of patient group had no significant correlation with physical or mental health status.

## 4. Discussion

In our study health status perception and physical and mental health of patients with epilepsy was significant less in patient group than control group, which corresponds to study by Pais-Ribeiro et al., (2007). They also demonstrated that an optimistic orientation is related to better perception of physical and mental health status [9]. Li et al. (2007) presented mean follow-up of 26 months of epilepsy treatment at primary health level with people with epilepsy and showed important reductions in seizure frequency and other improvements: the opinions of patients, relatives, and physicians regarding the overall health status were similar and indicate considerable improvements [10].

The clinical implications of the findings are that it is important to organize support groups for individuals with epilepsy, with the aim of developing positive expectations, because there exists

a growing body of evidence that elucidates the relationship of these variables and other psychosocial factors to biological processes associated with physical health, health perception, disease adjustment, and everyday life and, probably, to improved quality of life and epilepsy outcomes.

## 5. Conclusion

The findings of the present study can be concluded that the physical and mental health are significantly comprised in epilepsy patients who are on long term treatment and seizure attack are not completely controlled. Thus the health concerns of many patients need to address through combined appropriate therapy in addition to antiepileptic treatment.

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