

Psychosocial problems of patients with epilepsy for nursing care

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Abstract:

Objective: Psychosocial problems of patients with epilepsy are important in nursing care, assessment of their problems and solutions. Generally speaking, the treatment is successful, because about 70% of people with epilepsy after five years of the treatment after are in remission. However, about 20 to 30% of patients have resistance against pharmacology treatment and they live with epileptic seizures for years. Stigmatization, loss of social contacts and in some cases work and support surrounding the human condition get worse. During a seizure occur emotional changes as pseudo-absence, automatism, psychomotoric seizures, and also periictal - directly linked to an epileptic seizure and interictal emotional changes - changes in period between

seizures. Among periictal we include aura, amena and prodrome, between interictal include affective and psychotic symptoms, violent behavior and personality changes, depression. (Dragašek, 2005 Kimford, 2008 Ticháčková 2012 Pirdman, 2005) as reported by Hrubý (2010) it assumed that psychopathological symptoms are present in 20 to 30% of people with epilepsy, the most common depression and anxiety. Due emotional distress the quantity of seizures increased willingness to cooperate is lower and thus the treatment is more difficult. Attention is paid to the differences of the disease in terms of age, sex, and duration of the disease and we try to define the issues of psychological and social nature with which patients face.

Design: Identify the mental state and level of social support people with epilepsy and

the general population by questionnaire SUPSO and MOS social support questionnaire MOS and the individual components to measure the level of differences and compare the results.

Results: The diagnosis of psychosocial problems of patients with epilepsy, we used two types of questionnaires Supsa that assesses the subjective experience and mental state and social support questionnaire (Medical Outcomes Study: Survey Social Support Instrument), which focuses on social support and social ties. (MOS). Respondents consisted of $n = 60$ respondents including epilepsy $n = 30$ from neurological clinic in Slovakia. and the general population $n = 30$.

Conclusions We found that psychosocial problems of patients with epilepsy is higher for patients who are suffering of disease longer and the more mature age. Since we did not have the normal distribution of data in gender in patients with epilepsy, with this component we have not dealt further. People with epilepsy compared to healthy population show a statistically significantly higher rate of anxiety expectations and sadness. Statistically significant differences in factors are anxiety expectations, concern ($U = 291.500$, $Z = -2.352$, $p = .019$) and sadness ($U = 281.000$, $Z = -2.170$, $p = .030$). Furthermore, our results indicated that there are significant differences in the

level of psychological well-being ($U = 734.000$, $Z = 4.225$, $P = .000$) and activeness ($U = 746.000$, $Z = 4.395$, $p = .000$) relative to the population. A healthy population shows a significantly higher degree of activeness and well-being compared to people suffering from epilepsy. In total social support between a healthy population and a population of people suffering from epilepsy we did not found significant differences.

Key words: Epilepsy. Psychosocial problems. Stigma. Depression. Epileptic seizure. Questionnaire SUPSO, MOS, Neurological nursing.

Introduction

Epilepsy is accompanied by many psychiatric conditions - depression, personality changes, anxiety, psychosis, cognitive dysfunction, and others. In the past, it was put more importance to the treatment of seizures than psychological problems, so it was not the effort of their diagnosis and treatment. Formation of mental disorders is multifactorial conditional of neurobiological processes and psychosocial problems with which patients face. Clearly, can say that untreated mental disorders aggravate the course of the disease, as well as total quality of life, on the contrary early diagnosis and treatment can prevent deterioration of mental and physical

condition of the patient. In epilepsy we distinguish between changes of psyche into chronic, acute and intermittent. In terms of location of lesion are most commonly found mental disorders in epileptic with lesions in the medial limbic parts of the temporal lobe. During a seizure occur emotional changes as pseudo-absences, automatism, psychomotor seizures, and also interictal periictal and emotional changes. Among the periictal changes we include aura, amnesia and prodrome, the interictal changes include affective and psychotic symptoms, violent behavior, and personality changes. (Dragašek, 2005) As reported Mr. Hrubý (2010) it is assumed, that psychopathological symptoms are present in 20 to 30% of people with epilepsy, while the most common is depression and anxiety. Depression is a major negative factors affecting quality of life, often greater than the amount and intensity of epileptic seizures. Untreated depression is a serious problem, because the person failing in their roles - in the family, work, school, and can lead to suicide, which is annually up to 800,000, according to data from the World Health Organization from 2015.

Due the psychical distress the quantity of seizures increased, willingness to cooperate is lower and thus the treatment is more difficult. Epilepsy, focused in the temporal lobe of the brain

are more predisposed to start the depressive disorders. The prevalence of depression of patients with epilepsy is in the range 3-60% compared to 2-4% in the general population. (Kimford, 2008). Indicated by Ticháčková (2012), depression is associated with a higher probability of pharmacoresistency against antiepileptic pharmacy. In a study, which include 780 patients who were newly diagnosed epilepsy (Ticháčková, Pirdman, 2005, Ticháčková, 2012) was observed 2 times higher probability to develop seizures in patients with depression compared with patients without depression. Due epilepsy is often changed symptomatology, so it is more difficult to diagnose depression. In interictal depression we can observe on patients increased anxiety, episodes of euphoria, insomnia, irritability, anergy, chronic dysphoria. In patients with periictal disorders may be present prodrome. They occur as part of the aura or it can be the emotional survival during or after the seizure. The manifestation is fear, anxiety, depressed mood, headache. (Hrubý, 2010, Dragašek, 2005) The impact of starting the depression has also some types of anti-epileptics medicines. It is established, that the risk of suicide is five times higher than in the general population, and for epilepsy of temporal lobe is 25 times higher for patients with epilepsy than in the general

population. Up to 10% of cases is the cause of death. (Hrubý, 2010).

The second most frequent psychological disorders in epilepsy are anxiety disorders, which occur in 20-30% of patients with epilepsy and compared to the general population it is two to three times higher. By the nature of epilepsy can the percentage increased up to 50%. (Brázdil, 2012, Cakirpaloglu, 2012) Anxiety is an unpleasant sensation, when concerns are reflected in tensions, insomnia and cardiovascular problems. Anxiety disorders can be the part of the depression, or can occur independently. Often, anxiety disorder can be observed after initiating the antiepileptic treatment as an adverse effect the pharmacotherapy, contrary it may occur after discontinuation of the drug. Most studies have shown an increased risk of anxiety disorders in patients in the combination of drug therapy. Anxiety may occur as an aura, but can be the part of periictal or interictal anxiety disorder. (Ticháčková, Pirdman, 2005, Brázdil, 2012). Anxiety disorders can be classified as panic disorder, generalized anxiety disorder, obsessive - compulsive disorders and phobias. From phobias is the most frequently occurred in the study of Brandeta social phobia, which caused loneliness and on the result disrupt emotional stability of the patient and the

susceptibility to the formation of depression. Risk group for formation of anxiety are women. Epilepsy distorts their sexual development, fertility and pregnancy, which translates into concern for the future. In children, about 40% suffer from any of the anxiety disorders as a result of stress and lack of information about solutions in this situation. Solving the problem consist in setting the correct setting of pharmacological treatment and regime measures with dropping drugs step by step. (Arulsamy, 2016).

Epilepsy is also associated with social consequences - stigma in different forms. The social impact of the disease is different in each country and often people with epilepsy bear worse with it than with the actual seizures. Limited working ability and consequent difficulty in finding and keeping a job, or the ability to learn, problems in interpersonal relationships.

Stigmatization is a typical manifestation of many chronic health problems, and it is negatively affect the quality of life the patient with epilepsy. A typical example of the stigma is social exclusion of individuals from a population that has a health problem. Stigma can be understood as an attitude, that is at the individual level, based on ignorance, prejudice and fear of a particular group. Psychological and social consequences of stigma worsen the

mental state, because a person with the disease has a sense of shame, lowered self-esteem, which can lead to developing depression and demoralization. Most damaging aspect of experiencing stigma may feel that the person is no longer a full member of society and a normal member of the community. He tries to hide the diagnosis, which ultimately may further worsen the feeling of diversity and to contribute to social isolation.

DESIGN: Identify mental state and level of social support people with epilepsy and the general population by questionnaire SUPSO and Social Support Survey MOS and the in individual components to measure the level of differences and compare the results.

Materials and Methods

Participated in the study $n = 60$ respondents (52% women and 48% men). The age limit of the respondents ranged from 18- 65 and above. The largest sample consisted of respondents aged 36 to 45 years. Respondents consisted of $n = 60$ respondents including patient with epilepsy $n = 30$ from neurological clinic in Slovakia and the general population $n = 30$. The study excluded patients in whom epilepsy was identified as a secondary disease. For diagnosis of psychosocial problems in patients with epilepsy we used two types of

questionnaires SUPSA, that assesses the subjective experience and mental state. The main components of the questionnaire that describe mental condition are:

1. psychological well-being (P) - This component includes a pleasant mood and feelings of satisfaction accompanied by confidence and experiences of euphoria, the degree of mental serenity, peace, freshness.

2. vigorousness, strenuousness (A) - a component is defined as the vigor and assertiveness. It is the interaction of the active to the standby.

3. impulsivity, relaxation (O) - component involves spontaneous, uncontrolled release of mental tensions and stress in the weakening of self-control. We can define it explosive and moodiness, irritability, uncorrected aggressiveness.

4. mental restlessness, moodiness (N) - a component is defined as mental tension manifested by mental and motoric restlessness, annoyance, impatience, dissatisfaction and distraction.

5. mental depression, feelings of exhaustion (D) - components includes a complex of feelings and state, that the subsequent reaction is reduced readiness to interact. These include pessimism, feelings of exhaustion and weakness, passivity, weariness, apathy.

6. anxious anticipation, concern (U) - component includes feelings of uncertainty, stress, anxiety, mood and fears of future developments. This component is a asthenic experiencing psychological stress in an uncertain evolution of the situation.

7. dejection (S) - This component includes the passive survival of overcoming negative consequences of mental stress. There is the feeling as loneliness, hypersensitivity, misery, sadness. (Mikšík, 2004).

MOS Social Support Survey (Medical Outcomes Study: Social Support Survey) focuses on research in the field of measuring social support. We can evaluate the functional and structural support. Functional support focuses on interpersonal relationships and how they are functional. Components:

1. Emotional support - a positive effect, empathic understanding

2. Information Support - offering advices, information, guidance on feedback that can provide a solution

3. Auxiliary (material) support - offering material or behavioral aid

4. Positive social interaction - fellowship or social contact with other

people to share leisure and recreational activities

5. Award - providing information on self-assessment

6. Kind support - expressions of love and affection.

Structural support relates to interpersonal relationships. Aspects of structural support for the existence and the number of social relationships and the degree of interdependence in social interactions. (Rand Corporation, 1993 Mchorney et.al., 1993).

Results

Based on the statistical analysis, we present the data obtained in the individual components, which describe the mental condition of patients with epilepsy and the general population. People with epilepsy compared to healthy population show a statistically significantly higher rate of anxious expectations and sadness. We have found that there are significant differences in factors of anxiety expectations, concerns ($U = 291,500$, $Z = -2.352$, $p = ,019$), and sadness ($U = 281,000$, $Z = -2,170$, $p = ,030$).

Table 1 Mann-Whitney U test coefficients Anxiety expectations, Concerns, Sadness

	Short temper, Let off steam (O)	Mental restlessness, moodiness (N)	Mental depression, feeling exhausted (D)	Anxious expectations, worry (U)	Experience (S)
N	60	60	60	60	58
Mann-Whitney U coefficient	410,000	380,000	320,500	291,500	281,000
Standardized error	67,283	67,301	67,282	67,393	64,043
Standardized z coefficient	-,595	-,040	-,925	-2,352	-2,170
Asymptotic significance	,552	,38	,54	,019*	,030*

Furthermore, we found that a healthy population exhibits a significantly higher degree of activeness and well-being compared to people suffering from epilepsy which indicate us the results, that there are statistically significant differences in the level of psychological well-being ($U = 734,000$, $Z = 4,225$, $p = ,000$) and activeness ($U = 746,000$, $z = 4,395$, $p = ,000$) in view of the population (table 2). (Chart 3 and 4).

Table 2 Mann-Whitney U test of coefficients of Psychological well-being, vigorousness, strenuousness

	Psychological well-being (P)	Vigorousness, strenuousness (A)
N	60	60
Mann-Whitney U coefficient	734,000	746,000
Standardized error	67,216	67,342
Standardized z coefficient	4,225	4,395
Asymptotic Significance	,000*	,000*

Positive social interaction ($U = 633,000$, $z = 2,720$, $p = ,007$) measured by the questionnaire MOS in view of population we found that there is a statistically significant difference (Table 3). A healthy population declare significantly more social contact with other people to share leisure and recreational activities compared with population with epilepsy.

Table 3 Mann-Whitney U test coefficients Positive social interaction

	Positive social interaction
N	60
Mann-Whitney	633,000
U coefficient	
Standardized error	67,283
Standardized z coefficient	2,720
Asymptotic Significance	,007*

Perceived low level of support in material aid as the material support not record any significant statistic ($U=100,000$, $z = -,521$, $p = ,603$). Differences in the total level of social support between the two populations, we did not find statistically significant differences in total social support between a healthy population and a population of people suffering of epilepsy.

DISCUSSION

Kobau R. et al. (2014) reports the results of an international study completed in 2010 on the sample of 27,139 adults where was find out complete information about health concerning epilepsy, health related with quality of life, mental health, and social interaction. The results of the study show that adults with epilepsy describe significant changes in psychosocial health. Significantly more frequent restrictions occurred in psychological anxiety and in

social part higher rate of limitations in leisure activities. (Average level of anxiety of involved respondents with active epilepsy reaches the value of 12.8%, compared to involved respondents without epilepsy for which the value of anxiety is 3.2%). We agree with the study, where we also confirmed higher expectations in factors of *Anxiety Expectation, concerns* ($p\text{-value} = 0,019$) and *Sadness* ($p\text{-value} = 0,030$). Brázdil (2012) argues, that anxiety disorders are one of the most frequent

psychiatric disorders of people with epilepsy - occur in those 10-50% of patients. It adds, that significant differences may be due to different methodology. Faber (2001) indicates that epileptic seizures can cause mental disorders. Also authors (Drímalová, Dragašek, Frank, 2005) in their case reports compared the incidence of mental disorders in relation to the description on the EEG. They report that patients with epilepsy suffer from mental discomfort, bad mood. The complex care should lead to minimize psychological problems, social handicaps and to shared responsibility of the patient's for process of disease, preventing unnecessary complications and also through help from family members. (Novotna, Zárubová, Bendíková, 2004; Moore, Baker, 2002). Neuropsychological studies show that patients with epilepsy, with normal intelligence have less flexibility in the mental processes than the healthy persons (Kanner, et al., 1999; Moore, Baker, 2002), which may limit their ability to overcome obstacles on the daily bases and contribute to the development of depression and anxiety from expected attacks. Kobau R. et al. (2014) states in the social field, that there is a greater degree of limitations in leisure activities. Several studies have confirmed, that people with low levels of social support had more frequent health problems

than people who have had greater support from their loved ones. (Heretic, Heretic jr. et al., 2007) Similarly also the study by Sherman (2009), people with epilepsy suffer higher level of social isolation, whether in leisure time, sports and family activities or in job search as healthy people who have not any health problems, as our respondents who reported a reduction in social interaction. (Vágnerová, 2008) In the area of self-perception the research has shown that the majority of respondents did not consider them self as imperfect because of epileptic disease and only sometimes they felt to be isolated from others. The results show that patients not considered their illness as a handicap that would be somehow limited them in social life or in meeting with their friends. The study of social attitudes towards patients with epilepsy in France showed, that the majority of the population who suffer epilepsy does not want to meet or spend their free time with people suffering from epilepsy. It is therefore necessary to monitor the causes of social prejudice against such persons. (Owczarek,2007).

Conclusion

We can conclude that the prevalence of psycho - social problems, also according to previous research in this disease are present, in the different age groups. In agreement with other authors we confirm,

that patients with epilepsy have the higher rates of mental health problems and social area of social interactions, compared to the general population. An interesting finding was that even though we confirmed the relationship of age to the **degree** of social interactions, this has no effect on the total level of social support. We think, that they are not used all the possibilities and forms of prevention, that would be sufficient protection from psycho - social problems of patients with epilepsy. Therefore, it would be appropriate to focus in the future research on the possibilities of preventive measures in relation to preventing these problems of patients with epilepsy.

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