

# Depression in Patients with CKD: A Person Centered Approach

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## Abstract

Patients with chronic kidney disease, due not only to the complexity and multidimensional nature of problems, but mainly to the long term duration of the disease, are one of the most difficult groups of patients, often suffering from psychiatric morbidity. Depression according to a number of surveys is the most common psychological problem in patients undergoing renal dialysis. The high prevalence of the disease considers necessary for the systematic investigation of the problem and provide an adequate response. This review paper we deal with depressive symptoms in patients with CKD, using the person-centered approach, which is based on the principles of existentialism and phenomenology. Main concept is the equal relationship between therapist and the client, so that the person is able to understand himself/herself, to change the perception of him/her, change espoused attitudes and redefine the way in which he/she directs the behavior.

**Keywords:** Depression; Chronic kidney disease; End stage renal disease; Person-centered approach

**Abbreviations:** DSM-IV-TR Diagnostic and Statistical Manual of Mental Disorders Third Edition, Revised; ESRD: End Stage Renal Disease

## Introduction

In recent years there has been increased focus on the effects of chronic diseases, the psychological status of patients and the factors that determine good or poor adaptation to these diseases. People who experience a chronic disease are invited to make too many changes in their daily lives. A wide range of factors affects the psychosocial adaptation of these patients. Special category is patients with Chronic Kidney Disease (CKD). The complexity and nature of the disease as well as the problems they face, especially at the biological level; often have as result the occurrence of psychiatric morbidity of the patient, with obvious impact on relatives [1].

Depression is perhaps the most important psychiatric condition in patients with CKD, which often duplicates with symptoms of incipient renal failure or if the renal failure may cause depressive symptoms. The high prevalence of depression is a powerful incentive for creating supportive environments to psychological treatment in these patients. Of increased interest has the person-centered approach, that it might be an important therapeutic context in terms of psychotherapy in patients with CKD, given that while the effectiveness on certain condition has been proven until today, only a few is known about its effect on these patients.

## Major depressive disorder

According to the DSM IV-TR [2] major depressive disorder belongs to the category of mood disorders. Among others in the same category, the dysthymic and bipolar disorder also belong. The Major Depressive Disorder is a clinical psychiatric disorder in which the patient experiences at least a two-week depressed mood and loss of interest or pleasure. In addition five of the nine DSM IV criteria must be present for a full diagnosis. These criteria include the following: (a) depressed mood most of day; (b) significantly lower interest or pleasure in daily activities (anhedonia); (c) loss or weight gain without any justification; (d) insomnia or hypersomnia almost every day; (e) psychomotor stimulation or retardation; (f) fatigue or loss of energy;

(g) intense feelings of worthlessness or excessive and inappropriate guilt; (h) diminished ability to think or concentrate, or irresolution; (i) suicidal ideation, suicidal tendencies. The symptoms cause clinically significant discomfort or impairment in social, professional or other areas of functioning.

## Chronic kidney disease

Chronic Kidney Disease (CKD) is a health problem worldwide, with increasing incidence and prevalence, use of health services and associated costs of health care. Renal diseases have a wide age range [3] and occur either in sudden acute deficiency or-more often-chronic and progressive course of renal function [4].

## Psychiatric morbidity in CKD

Research shows that major depressive disorder is a very common psychiatric disorder seen in kidney and end stage renal patients [5,6]. Indeed, the incidence rates are higher than other chronic diseases. In particular about 20% of renal patients suffer from a major depressive episode [7], while the rates are lower in patients with diabetes [8] or heart failure [9]. Other research shows that 28% of patients with CKD undergoing dialysis have some sort and Major Depressive Disorder [10].

The various psychological problems, the age range for expression of renal disease, multiple reasons and chronic therapeutic interventions, are factors that contribute to high incidence of mental disorders in patients with CKD. A number of studies prove higher rates of mental disorders in patients with ESRD compared with those patients with other chronic diseases [11]. Depression is the most common cause of psychiatric reference of dialysis patients in many countries, followed by

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adjustment disorders and organic acute delirium [12]. Other common mental disorders are anxiety disorders, alcohol abuse and psychoses.

Depression is one of the most common mental disorders in patients suffering from ESRD. The review of the literature reveals rates of depression in patients with ESRD, ranging from 12% to 40% [13,14]. The large variation in the incidence of depression is mainly based on methodological problems of studies, such as the variety of diagnostic tools, the use of different diagnostic criteria and the heterogeneity of the study sample in terms of pathogenesis, the duration and treatment of ESRD.

For example, the use of diagnostic screening scales that include somatic symptoms of depression (e.g., weight loss, sleep disturbances, easy fatigue, decreased energy) contribute to over diagnosis of depression, compared with diagnostic tools that focus more on emotional and cognitive features of depression [15]. Depression can occur at any time during the course of the disease; however, a greater risk has been reported during the period of initial diagnosis of ESRD and during the first year after initiation of hemodialysis, especially when kidney transplantation is contraindicated due to advanced age or high comorbidity. At this time, patients are particularly vulnerable as they face important decisions about treatment and dramatic changes in their lifestyle [16]. However, other studies suggest that the prevalence increases in the final stages of the disease [17]. Also, patients who have undergone kidney transplantation have lower rates of depression, compared with hemodialysis patients [18]. The failed transplantation is a stressful factor, which contributes to increased risk of psychological problems [19].

### Depression and ESRD

There are many causes of depression in patients with ESRD. A subjective organic base, such as autoimmune diseases or secondary hyperparathyroidism, contributes to the occurrence of secondary depressive symptomatology. Also, medications that patients take may be involved in the pathogenesis of depression, as illustrated by corticosteroids. The existence of previous history of depression before the onset of CKD is an important risk factor [20]. As already shown, kidney patients face multiple casualties during the disease, also reported as risk factors. However, the emotional response of patients to various losses is individual and does not always lead to the emergence of depressive disorder. Sacks et al. [21] have found higher correlation of depression with convictions of patients regarding their disease, despite the severity of the disease. Great importance is the way of stress management and patient internal or external performance audit. The table lists the risk factors for depression in patients with CKD (Table 1).

Often, symptoms such as irritability sleep disorders and appetite, easy fatigue and reduced sexual interest may be due to uremia or electrolyte abnormalities. Due to the overlap of physical symptoms of depression with those of other medical diseases, the diagnosis of depression is complicated. Therefore it is important that the diagnosis of depression is based especially in psychological symptoms such as

	risk factors
1	Previous history of depression
2	Subject organic disease
3	Drug treatment
4	losses

Table 1: Risk factors and causes of depression in patients with CKD.

anhedonia, decreased self-esteem, guilt and suicidal ideation [22].

### Review of depression in CKD

Depression is one of the most common psychological problems among Hemodialysis (HD) patients. Range of prevalence was 5% to 58% for depression. Weighted mean prevalence of depression was between 38% and 27%. Most studies used the Beck Depression Inventory screening tool to screen for depression, although not all studies used the standard cutoff of greater than 10. Other studies used standardized psychiatric interview or other validated screening tools, such as the Hospital Anxiety and Depression scale, or the Zung self-rating depression scale. Considerable debate is taking place about diagnosis of depression in this medically ill population because many of the neurovegetative symptoms of depression overlap with the physical symptoms of illness. O'Donnell and Chung are helpful in clarifying this debate by comparing exclusive (where criteria based on physical symptoms are excluded from the diagnostic criteria), substitutive (where alternative criteria are substituted for criteria based on physical symptoms) and inclusive (where criteria based on physical symptoms are included in the diagnostic criteria) approaches. We still lack reliable data that can be used to directly compare the prevalence of depression between HD patients and the general population. However, previous investigations generally agree that the rate of depression is high among HD patients.

In the general population, the lifetime prevalence of major depressive disorder is about 16.2% [23]. Most important studies are summarized in table 2.

The variation in prevalence rates of depression might due to differences in sample sizes and assessment tools [24]. Despite such discrepancies, depression is unquestionably one of the most important mental illnesses among HD patients. Strong correlations have been noted between depression and longitudinal outcome among HD patients, including poor treatment adherence and higher mortality rates [25]. In addition, depression in HD patients is associated with higher rates of hospital admission, and a greater likelihood of emergency department visits [26,27].

### Depression in patients with CKD and bereavement

The prognosis of depression, as we said, is considerably higher in patients with CKD than in general population [28]. The remarkable finding of a survey is that patients undergoing dialysis for more than four years indicate lower scores on scales of depression than patients in the first four years of dialysis [28]. This finding agrees with the theory of five stages of mourning grounded by Kubler-Ross [29]. Every change into our lives includes a kind of loss. And every loss is needed to get mourned. And this applies not only in the case of death, but even beyond the loss of an intimate partner or friendly relationship, a job, a house or anything like that. Respectively, and patients suffering from a chronic disease experience the loss of a part of their body. This makes them vulnerable, weak, different, and new. Even if a patient undergo a transplant, and possibly cognitively evaluates the experience as positive and as salutary, irreversible loss of their own one-member body could create feelings of mourning.

According to Kleeman [30], in every chronic disease, as well as in the diagnosis of chronic renal failure, individuals and families follow the process of mourning. Kidney patients and their families experience losses associated with health loss, loss of independence, loss of active contribution at home, loss of privileges of the social role of the patient

Study	Prevalence of depression % (Definition Used)	Period of Prevalence
Troidle et al. [41]	Beck Depression Inventory (BDI) score $\geq$ 11	January 1, 1997, and January 31, 2002
O'Donnell and Chung [42]	(DSM-III-R criteria, substituting specific physical symptoms with psychological symptoms. Same % identified by Beck Depression Inventory score $\geq$ 9, including all physical symptoms) (DSM-III-R criteria, excluding physical symptoms caused by the medical condition) (Beck Depression Inventory score $\geq$ 15)	Previous 7 days
Hinrichsen et al. [15]	(Research Diagnostic Criteria for minor depression) (Research Diagnostic Criteria for major depression)	Not defined
Lopes et al. [43]	(Patient report in response to 2 questions on mood from KDQOL-SF) relating to past 4 weeks) (Physician diagnosed from medical records)	Over previous 4 weeks
Martin and Thompson [44]	(Score $\geq$ 8 on depression component of Hospital Anxiety and Depression scale)	Point prevalence
Kimmel and Peterson [14]	5% and 10%	Previous 7 days
Cukor et al. [45]	Beck Depression Inventory	Previous 7 days
Watnick et al. [7]	Beck Depression Inventory score $\geq$ 14)	Previous 7 days
Wuerth et al. [46]	Beck Depression Inventory score $\geq$ 10)	Previous 7 days

**Table 2:** Reported Prevalence of Depression in ESRD.

and all that resulted from this social role, economic wealth losses and emotional losses. These stages are denial, anger, negotiation, depression and acceptance.

Patients are shocked and refuse to accept the diagnosis. So they seek various experts in the belief that they will hear something more promising. As an event of an angry protest; they wonder why they are chosen by the disease. Anger is usually aimed at the family or even at medical personnel. In negotiating the patient follows the instructions of the therapist as an attempt to overcome the crisis. At this stage of depression the patient is withdrawn. The main emotion is grief. Finally in the process of accepting the patient accepts the illness as a part of his/her life. The patient stops pretending that the disease does not exist, recognizes it and gives meaning and value to his/her life.

But it should be noted that patients do not always follow the steps in the order listed above. Nor is it necessary to conquer the stage of acceptance. After the negotiation the patient may return to denial or anger. It is a constantly evolving process which does not grow in one direction. In other words, it is not about different stages that each person passes, but it is about a unique process that includes such feelings.

According to Kubler-Ross [29], in the process of admission, the patient has reinvented itself in relation to the disease. She observed that patients who are at the final stage of their disease are exempted from depression. As the disease progresses gradually and the need for medical monitoring and intervention increases, patients who accept their illness show decreased depressive symptoms. This process is influenced by how patients perceive support from significant others, the personal and idiosyncratic characteristics of the cognitive extension of feelings, ideas and thoughts associated with the disease.

### Treatment of depression

The necessity to treat depression in patients with CKD is essential as it seems to be associated with lower life expectancy (American Psychiatric Association., 1994). Only a minority of patients with CKD undergoes some kind of treatment for depressive symptoms, either medication or some kind of psychotherapy [31]. For treatment modalities, the literature is limited. An interesting research examined the effect of sertraline hydrochloride in patients undergoing peritoneal

dialysis [32]. This antidepressant was administered to patients who met the criteria for diagnosis of major depressive disorder. The survey showed that three months after receiving this kind of treatment, patients not only had reduced symptoms but even more this antidepressant improved overall the quality of life.

Regarding to psychotherapy, little is known compared with cognitive-behavioral therapy. A unique research [33] investigated the treatment of depression in patients with CKD applying cognitive-behavioral therapy for 9 months. This kind of psychotherapy resulted reduction in depression scores according to Beck Depression Inventory.

### Person-centered approach to patients with CKD

Carl Rogers (1902-1987) was one of the most influential psychotherapists of the 20<sup>th</sup> century. He initiated treatment theories of Otto Rank and he grounded the person-centered approach. The person-centered approach is based on the principles of existentialism and phenomenology. Existentialism is a philosophical current that answers to fundamental questions of life such as 'where can I find happiness' and 'how can I actualize'. "The phenomenology describes the unique relationship that every person has with oneself [34]. The person-centered approach is at an equitable relationship between therapist and the client and its effectiveness has been proved by several researches. Although the measurements do not relate to clinical or laboratory features, as might happen in the field of medicine, a meta-analysis of 60 years of research demonstrates the effectiveness of the approach. Some of the findings of this research showed that clients were moved to change after treatment. In addition the benefits of person-centered psychotherapy work in the long term. Finally one of the most interesting findings of this research is that people receiving person-centered psychotherapy clearly benefited more than those who did not receive any treatment [35-37].

A fundamental principle of person-centered approach is the actualizing tendency. This is the inherent tendency that any organism has, which motivates the development, evolvement, survival and achievement of the full potential. It motivates the body for survival, to explore its environment, to search more complete and more appropriate ways to live, to the differentiation and evolution. The

person-centered approach trusts the existence of this tendency, which never gets destroyed, but only when the organism is totally destructed [38,39].

No disease, neither CKD fails to destroy the existence of the actualizing tendency. What could possibly make a chronic disease, which is experienced as an intense and stressful event, is to obstruct or distort this tendency. Each patient then has modeled its self-concept, which has resulted from successive processes. The self- concept is so strongly supported, which may conflict with the experience that the person experiences when suffers from a chronic disease. For example a patient may have configurations of self, called independence and dynamism. When the patient suffers from a disease, there's a conflict between the structure of his/her self and what he/she experiences. He/she experiences the loss of his/her independence and maybe the decrease of dynamism. The more powerful and more intense is the conflict between the self- concept and what the patient experiences, the most possible is for the patient to develop psychopathology. This only happens when the self-protective mechanisms, such as denial and distortion, are not sufficient to maintain the self-concept [34].

In Person Centered therapy the therapist can set a facilitative climate, in which the client can realize what changes undergone the structure of self. During Person Centered psychotherapy the client is able to mourn the changes the disease has brought to him. In the therapy, it is important that the necessary and sufficient core conditions of person-centered approach exist; these conditions include [34]:

1. Two people are in psychological contact;
2. The first whom we shall term the client, is in a state of incongruence, being vulnerable or anxious;
3. The second person, whom we shall term the therapist, is congruent or integrated in the relationship;
4. The therapist experiences unconditional positive regard for the client;
5. The therapist experiences empathic understanding for the client;
6. Finally, the above two conditions are at least perceived by the client.

Only when the client experiences, a climate that is governed by unconditional acceptance, empathy and authenticity during the therapeutic process, then he/she can move. The depressive symptoms that occur in patients with chronic disease might result from the final loss of their self-concept. It seems to have difficulty accepting the new conditions of life. During therapy, therefore the person has the ability to understand it, to change the perception of itself, change espoused attitudes and redefine the way which drives behaviors [40].

According to Rogers [34] and person-centered approach; "*the curious paradox is when I fully accept myself as I am, then I can change*".

### Limitations-conclusions

According to the limitations of this paper we need to mention that all the above is a suggestion of treatment for patients suffering from chronic kidney disease. There is no evidence referring to this kind of patients. Authors are making a suggestion and strongly believe that person centered approach can be very helpful for such patients by offering the facilitative conditions

already mentioned. This approach may not be suitable in every person or authors do not consider this approach as panacea.

Furthermore, when one of the symptoms of the major depressive disorder is suicidal ideation, further psychiatric assessment is needed. Psychiatric medication can help in such symptoms and the cooperation of a psychiatrist is necessary.

In conclusion, it appears that patients with chronic kidney disease are often pensive and depressed. Chronic diseases are risk factors for emotional disorders. The person-centered psychotherapy can help the patient by creating a climate of empathy and acceptance in which he/she will be able to accept himself. It would be interesting if we could investigate whether depressive symptomatology is reduced by applying person-centered counseling in end-stage renal patients.

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