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RESEARCH ARTICLE

Depressive Response Among a Sample of Patients with Renal Failure: A Field Study of Four Cases at the Hemodialysis Hospital in the City of Laghouat

Farsi Ibrahimelkhalil
Lecturer A, Amar Telidji University of Laghouat
Algeria
E-mail: ibk.farsi@lagh-univ.dz

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Abstract

The current study aimed to reveal the depressive response of a sample of chronic renal failure patients who were undergoing hemodialysis at the National Foundation for Neighborhood Health in Laghouat, where the study population consisted of a sample of four clinical cases ranging in age between (25-35) that vary according to Age, civil status, educational level, family pension, standard of living, and the age of occurrence of the injury. The situation was achieved through a set of tools represented in the interview, observation, in addition to the application of the Beck Scale to measure the degree of depression. The following results were reached:

The first hypothesis was verified that patients with chronic renal insufficiency who are undergoing hemodialysis have a depressive response. The second hypothesis was verified, which states that there are differences in the degree of depression among a sample of chronic renal failure patients who are undergoing hemodialysis, depending on the age of the disease.

Citation

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Introduction:

The onset of a physical illness-especially when it involves an important organ in the body-and when this chronic illness leads to a deterioration in the individual's physical and psychological condition, results in a loss or impairment of vital functions. A human being is a unified physical-psychological entity, and one aspect cannot be separated from the other.

In our present time, various physical diseases have emerged that carry a psychological dimension, among them renal failure, also referred to as chronic kidney failure, which is characterized by the gradual cessation of kidney function. Some researchers have indicated that 30% of physical illnesses have a psychological basis, while others believe that this percentage has risen in recent years to 60% or even 90%. This supports the notion that the body and mind form an integrated unit. Physical illness threatens a person's sense of security and psychological adjustment, causing them to experience psychological distress—especially when the illness is serious, such as chronic renal failure. In this condition, the patient remains dépendent on the hemodialysis machine for life, and hope for recovery is limited because kidney transplantation is not accessible to every patient. A person suffering from this illness often feels

deficient and vulnerable, which leads to changes in their reactions and psychological responses. Advanced chronic kidney disease may also lead to the dangerous accumulation of fluids and waste products in the body. In the advanced stages of chronic kidney disease, you may experience few signs or symptoms. You may not even realize you have a kidney condition until it has progressed significantly. Treatment for chronic kidney disease focuses on slowing the progression of kidney damage, which is usually achieved by controlling its underlying cause. However, even managing the cause may not fully prevent the worsening of kidney damage.Chronic kidney disease can progress to end-stage renal failure, a stage that can be fatal without artificial dialysis or a kidney transplant. Chronic renal failure occurs when a disease or medical condition weakens the kidneys' functions, leading to worsening damage over the course of several months or years. The signs and symptoms of kidney disease are often not specific to the condition itself, meaning they may result from other illnesses. Because the kidneys are capable of performing a wide range of functions, symptoms may not appear until irreversible damage has already occurred. Prolonged kidney failure often leads to high blood pressure and, in many cases, various psychological disorders associated with the condition.

Individuals suffering from kidney failure or renal insufficiency are more prone to depressive disorders, which are part of the affective disorder category. These disorders are among the most widespread and common psychological conditions among patients with kidney failure or renal insufficiency, and they are responsible for significant psychological suffering among thousands of individuals in any population. It is estimated that 50–70% of suicide attempts that result in death in the general population are linked to depressive disorders (Okasha, 1998, p. 57). With the increasing psychological pressures resulting from kidney failure, the prevalence of personal difficulties among affected individuals also rises. They often have little time to relax without intrusive thoughts, and thus it is not surprising that their feelings of fatigue, exhaustion, and tension intensify. Continuous psychological stress fuels negative emotions, reduces resistance to depression, and heightens depressive responses in the individual.Moreover, feelings of helplessness in the face of fate, fear of the future, and life changes all contribute to the development of depressive disorders in many people. At this point, the role of education becomes essential: individuals must educate themselves in this area, as the best way to protect oneself from depression is to know its causes and avoid them. Society as a whole also has a responsibility to care for the psychological well-being of individuals and adolescents (Bouchra, 2007; El-Sherbini, 2001). According to a number of researchers, a psychological disorder can easily affect an individual if there is flexibility and a ground that allows it to become established within the person's personality. Such problems place the affected individual before many questions; he constantly wonders about the reason for his existence and why he cannot live happily like others. This suffocates him in labyrinths with no way out, and he dives into his dreams as if he wants to rebuild the world on his own and recreate his existence once again. However, he soon finds himself facing the same reality. These difficulties distance him from his daily life and allow him to sink into his unconscious.

When a person develops an illness, it can lead him to live in significant emotional distress. The patient suffers greatly from what has afflicted him and finds it difficult to experience pleasure in his life. Organic diseases that may affect an individual confine him within narrow physical limits, which impacts his lifestyle. These diseases are not only a source of pain and anxiety about the future, but they may also fundamentally change his way of living, ultimately leading him into a depressive state.It is worth noting that most specialists today consider depression a chronic illness that requires long-term treatment, similar to diabetes, hypertension, and other diseases. Although some individuals experience depression only once in their lives, most suffer from recurring depressive symptoms.The aim of this study was to gain a deeper understanding of adult patients suffering from chronic kidney failure who undergo artificial hemodialysis, and to identify the impact of this illness on their psychological well-being. We dedicated this study to examining depression and the degree of depressive response among these patients. Therefore, we found it necessary to address such topics, uncover them, and shed light on the effects they leave on the patient's life as well as on those around them.

1- Study Problem:

Given the large number of individuals in Algeria suffering from chronic kidney failure, intervention is required both from a medical and a psychological perspective. Patients often experience anxiety, depression, feelings of failure and humiliation, dependency, loss of self-worth, and develop a negative view of their environment, feeling ineffective and unhelpful. Physical illnesses, regardless of the degree of physical disability they involve, affect a person's psychological and emotional state. This was confirmed by a study conducted by the researcher Bandar in 1982, which linked health to self-esteem. He argued that if an individual reaches a peak level of energy, this will be realized through their health status (Othman Yekhlif, 2002, p.7). Depression is considered a compelling topic that has attracted significant attention from researchers and specialists in psychology, as it has become a disease of our era due to its widespread prevalence across various societies and cultures. It is a pathological condition characterized by a range of emotional,

psychological, physical, and cognitive manifestations, affecting the individual's behavior and personality, especially when circumstances allow. Researchers have focused on studying the psychological aspects of psychosomatic disorders, in which physical disturbances clearly impact the psychological state. Scientific studies have highlighted the importance of the psychological dimension, both in reinforcing the physical disorder and increasing its severity on one hand, and in contributing to recovery and addressing the physical illness on the other. Organic diseases are often accompanied by psychological disturbances and conditions, including: Severe fear, sadness, pessimism, anxiety, and depression are often observed in individuals suffering from organic diseases. However, when the patient's health improves, these psychological disturbances usually disappear. This is not the case with chronic kidney failure, where the prospects for recovery are low. This is because the only definitive treatment is a kidney transplant, which is an expensive procedure and, even if a donor is available, requires a challenging process to achieve. Consequently, patients with chronic kidney failure undergoing hemodialysis experience persistent emotional distress that may even threaten their lives.Beck (1967) argued that depression manifests in all its specific features as a result of a particular physical illness, especially when the disorder is chronic or severe. Sudden onset of any physical disorder is accompanied by a depressive response associated with psychological phenomena such as deteriorating health, fear of not recovering, progression of the illness to more severe stages, and fear of changes to previous lifestyle patterns. Moreover, the longer the duration of the illness, the more negatively it affects the patient. (sheinder,1980, p96).

As a result of our experience with this group and the severe psychological conditions they suffer from, we were led to study and investigate this population, which lacks psychological support. Based on previous studies and the findings of researchers and scientists, we raise the following questions:

- Do patients with chronic kidney failure undergoing hemodialysis exhibit a depressive response?
- Are there differences in the degree of depressive response resulting from chronic kidney failure according to the age of onset?

1.1- Study Hypotheses:

- * Patients with chronic kidney failure undergoing hemodialysis exhibit a depressive response.
- There are differences in the degree of depressive response resulting from chronic kidney failure depending on the age of onset.

1-2- Study Objectives:

- To identify the indicators of depressive response in patients with chronic kidney failure.
- To understand how these patients adapt to chronic kidney failure and to assess the impact of the disease on the patient.

1.3. Study Significance:

The study is significant in addressing the topic of depressive response among a sample of patients with chronic kidney failure, as well as the attention given to them psychologically and to their families, who often struggle and are unaware of how to accept the disease and support their affected members. The importance of the study also lies in raising awareness among professionals, including doctors and psychologists, drawing their attention to such cases, providing proper care, and helping patients overcome this period and the psychological disturbances it entails. Moreover, our study aims to raise awareness among charitable organizations that assist these patients, as well as among all social stakeholders concerned with supporting them financially, morally, and emotionally.

1.4. Study Terminology:

4.1 Depressive Response: It is a psychological reaction to a shock or deprivation resulting from a sudden event, such as a loss, trauma, or disappointment. In other words, it represents a concrete manifestation of what happens to ordinary individuals when they are struck by an unexpected misfortune (Yaacoub Saeed Hafiz, 2007, p.25).

4.2 Operational Definition of Depressive Response: Students define depressive response operationally as all signs with a depressive appearance resulting from a painful external event or a stressful life situation. It is measured using the Beck Depression Inventory.

4.3 Kidney Failure: Kidney failure is a gradual loss of kidney function over the years, whereas acute kidney failure occurs over a short period ranging from hours to days. In acute kidney failure, the kidneys may recover their function after treatment, while in chronic kidney failure, the kidneys lose their functions permanently (Aichouni & Belzerq, 2016, p. B).

4.4 Operational Definition of Kidney Failure: It refers to a person who suffers from kidney failure in one or both kidneys and undergoes hemodialysis twice a week using an artificial blood filtration device.

4.5 Definition of Hemodialysis: It is an extracorporeal device connected to the bloodstream that the patient uses to filter the blood. It acts as a substitute for the kidneys and performs their functions in cases of kidney failure.

2- 2- Methodological Procedures:

2.1- Study Design:

It is defined as a method used by the researcher to reach the truth of the phenomenon under study, thereby enabling its confirmation or refutation (Amar Bahoush, 1995, p.19).

Since the topic of our research is *"Depressive Response Among a Sample of Patients with Chronic Kidney Failure Undergoing Hemodialysis"*, the method adopted in our study is the **clinical method**. This method is used in psychological clinics for diagnosis and treatment, as the interpretation of a behavioral manifestation is not done by isolating it from other behaviors, but rather by referring to the personality as a whole and to all responses exhibited by the individual. The clinical method studies the patient as a complete case and as an integrated unit.

2-2- Study Sample:

Sample: The sample is defined as a subset of the study population, selected using a specific method to be studied (Obeidat, 2002, p.48).

Characteristics of the Study Sample: Our sample was selected from the Hemodialysis Unit at the hospital located in the center of Laghouat, in the Sinoubar district. The selection was **purposeful**, meaning it was deliberate, as the sample met the requirements of the research based on their medical files and available information about their conditions. The sample consisted of 4 cases to allow us to achieve the objectives of the study.

The sample of our study was chosen purposefully, taking the following into consideration:

- **Age:** We ensured that the study group consisted of adults aged between 20 and 35 years, as adulthood is considered the most suitable stage to examine the degree of depression.
- **Gender:** Our sample included individuals of both genders.
- **Disease Characteristics:** All members of the sample suffered from chronic kidney failure and were undergoing treatment with a hemodialysis machine.

The following table shows the details of the sample members:

Table 1: Characteristics of the Study Sample

	Age	Gender	Marital Status	Occupation	Educational Level	Economic Status
Case 1	25	Male	Single	Unemployed	Higher Education	Intermediate
Case 2	31	Male	Single	Worker	Secondary	Intermediate

Case 3	30	Female	Single	Unemployed	Secondary	Good
Case 4	29	Male	Single	Unemployed	Higher Education	Intermediate

It can be observed from the table above that the sample members or cases are fairly similar across all levels. Their ages ranged between 25 and 34 years, while their educational levels were relatively high, ranging from secondary to university. Regarding marital status, all were single except for one case who was married. As for economic status, it was somewhat similar among the participants. This indicates that chronic kidney failure affects all members of society, regardless of their social, cultural, or economic characteristics.

As for the disease-related characteristics, the following table illustrates them:

Table 2: Year of Onset and Duration of Dialysis.

Cases	Year of Onset	Duration of Dialysis
Case 1	23	Two years
Case 2	29	One and a half years
Case 3	29	Two years
Case 4	25	Four years

The table above shows that the cases were similar in terms of the age of onset and the duration of hemodialysis treatment. We also ensured that our study group consisted of adults aged between 25 and 35 years.

2.3. Study Instruments:

In the present study, we selected techniques that align with the requirements of the research and its expected outcomes, namely **observation**, **interview**, and the **Beck Depression Inventory**.

2.3.1. Clinical Observation: In psychology, observation is a method that complements the interview; it is used in behavioral topics and also complements both interviews and tests. Julien Roch defines it as a set of clinical skills manifested in observing the patient in general, from appearance to facial changes, tone of voice, body movements, and posture while responding to questions. Clinical observation includes the following elements:

- **Contact:** Based on the relationship between the examiner and the examinee.
- **Facial features:** Reflected in the eyes and facial gestures.
- **Appearance:** Including clothing and personal hygiene.
- **Language:** Based on speech patterns, tone of voice, and types of sentences used.
- **Memory:** According to the ability to recall, ease or difficulty in understanding, and forgetfulness.(Abdul Rahman Al-Eisawy, 1984, p.81)

2.3.2 Clinical Interview: The clinical interview is one of the commonly used techniques in the clinical method and is indispensable when conducting scientific research in the clinical field. It allows closer interaction with the patient, gathering information and data, and preparing hypotheses for the clinical specialist to conduct a comprehensive study of the cases. This is achieved through purposeful conversation and a thorough understanding of the patient's condition. There are different types of clinical interviews:

- **Unstructured Interview:** The examinee is given freedom, and the examiner intervenes minimally. This method is considered more comfortable but requires patience and a long time to obtain important information.

- **Structured Interview:** The specialist asks specific questions to the examinee, which may cause anxiety or discomfort, and the examinee may not feel at ease.

- **Semi-Structured Interview:** The interview takes place between the specialist and the patient, with open-ended questions intended to create a comfortable atmosphere for reassurance and trust while remaining on topic and gathering as much information as possible, allowing the patient to express freely.

A **test** is a tool that allows us to uncover the inner life of the examinee and the repressed material hidden through defense mechanisms.(Ramadan Mohamed Al-Qaddafi, 1992, p.93).

We followed a strategy in structuring the interview by presenting the examinee with **main themes in the form of open-ended questions**. Our interview guide contained four main themes:

Theme 1: Personal Data – This theme included questions about the patient's name, marital status, educational level, etc. It serves as an entry point to the dialogue with the examinee and allows access to other themes after gaining their trust.

Theme 2: Medical History – The objective of this theme was to understand the patient's life, how they accepted the illness, and the impact of the disease on their psychological well-being.

Theme 3: Health Status in the Hospital – This theme aimed to determine the patient's condition in the hospital as well as their health circumstances.

Theme 4: Psychological Life – This theme aimed to explore the patient's psychological experience, understand the changes that occurred in their psychological state after the illness, and examine their relationships with family and peers.

2.3.3. Beck Depression Inventory (Beck):

- **Definition of the Scale:** The BDI is a self-report questionnaire designed to assess the severity of depression in individuals starting from adolescence. It was developed by Aaron Beck. We chose the Beck Depression Inventory because it measures the depth and severity of depressive symptoms and has proven reliability and validity in psychological assessment. Additionally, it allows us to confirm that the cases included in our study sample exhibit a certain degree of depression.

- **Introduction of the Scale:** The BDI was first published by clinician Aaron Beck in 1961 in its original form, consisting of 21 groups of symptoms. Each group included a graded series of four statements reflecting the severity of the disorder, using scores ranging from 0 to 3. These were selected based on systematic and intensive clinical observations of clear depressive manifestations. (Badr Mohamed Al-Ansari, 2002, p.177)

- **Components:** Currently, the BDI consists of 13 groups of statements, representing the abbreviated form of the original scale. This new version was prepared by Beck himself, and the statements included in the scale in its current form are as follows:

Table 3: Beck Depression Inventory (Beck)

1- Sadness	2- Pessimism	3- Boredom	4- Dissatisfaction	5- Feelings of Guilt
6- Self-Dislike	7-Self-Satisfaction	8-Social Withdrawal	9- Indecisiveness	10- Changes in Self-Image
11- Difficulty Working	12- Fatigue	13- Loss of Appetite		

Application of the Beck Depression Inventory (Beck): Clinical Use

The Beck can be administered either **individually** or **collectively**. The questionnaire booklet contains detailed instructions explaining how to answer the questions, and responses are recorded directly in the booklet.

- In **individual administration**, the examinee simply reads the instructions in the booklet and begins answering after ensuring understanding.

- In **group administration**, the questionnaires can be distributed to each examinee, who is asked to write their name, age, educational level, and date of completion. The instructions are then read aloud to eliminate any ambiguity or confusion.

Administration Time: The current administration time is approximately 5 to 7 minutes. Generally, no strict time limit is set for examinees, as the application duration is not strictly fixed, provided it is not excessively prolonged.

Scoring Method: Scoring is performed by summing the individual item scores, which range from 0 (minimum) to 39 (maximum). These total scores are then classified into cut-off ranges to determine the severity of depression. Scores are not converted into standardized scores. The method used is the **cut-off score approach**, which estimates the presence or absence of depression. (Previous reference, 2002, p.179).

The following table shows the scores:

Table (04) Cut-off Scores for the Beck Depression Inventory

Recorded Score	Score Result
0-4	No Depression
5-7	Moderate Depression
8-15	Moderate Depression
16 and above	Severe Depression

2.4. Psychometric Properties of Measurement Tools

A number of Arab and foreign researchers have examined the psychometric properties of the Beck Depression Inventory (**Beck**) in its first and second versions. Beck calculated the scale's validity on a sample of students, obtaining a Cronbach's alpha of **0.93**. The Beck also demonstrates content validity and factorial validity, and the inventory has proven to be efficient in diagnosis.
(Gharib Abdel Fattah, 2000, p.97)

Reliability
Several methods were used to measure the reliability of the Beck in the American population:

- **Inter-rater reliability:** The agreement between two psychiatrists applying the scale to a sample of 150 patients with neurosis and personality disorders reached **70%**.

- **Internal consistency:** The scale was applied to 200 examinees, comparing each examinee's score on each symptom to their total score. Using non-parametric analysis of variance by ranks, all symptoms measured by the scale were statistically significant at $p < 0.01$.

- **Split-half method:** Applied to a sample of 97 examinees, yielding a correlation coefficient of **0.86**, which increased to **0.93** after correction using the Spearman-Brown formula.

- **Test-retest reliability:** Applied to a sample of 38 patients twice, with a time interval of two to six weeks, yielding a correlation of **0.83**. (Rashad Abdel Aziz, n.d., p.97)

Validity

Various methods were used to assess the validity of the Beck, including concurrent validity, which examined the relationship between Beck scores and other psychometric measures, such as the **MMPI Depression Scale** and the **Hamilton Depression Scale**, yielding correlation coefficients ranging from **0.72 to 0.76**.(Previous reference, n.d., p.99)

In the Arab context:

Reliability:

- Gharib Abdel Fattah (1985) used the split-half method on 50 examinees at Al-Azhar University, Egypt, obtaining a correlation coefficient of **0.87**.
- Test-retest reliability was applied to 33 adults with a time interval of 1.5 months, yielding satisfactory reliability.
- **Cronbach's alpha** was applied to 75 university students at Ain Shams University, Egypt, resulting in an alpha coefficient of **0.75**, significant at **$p < 0.01$**.

Validity:

- Concurrent validity was assessed between the BDI and the D scale of the MMPI on 43 adults, yielding a correlation of **0.60**.
- Abdel Khaleq assessed construct validity by calculating correlations on 120 students from Alexandria University between the BDI and three scales theoretically related to depression: optimism, pessimism, and hopelessness. The correlation coefficients were **0.56**, **0.73**, and **0.37**, respectively.
- Additional assessments used the **Guilford Depression Scale**, the **MMPI Depression Scale**, and the **Zuckerman-Lewin Emotionality Scale** on a sample of 120 university students.(Ma'maria, 1998, pp.148-149)

3- Study Results:

Based on the study conducted on four cases and the results obtained in the research field through both unstructured and structured interviews, as well as through the scores on the Beck Depression Inventory among a sample of patients with chronic renal failure, it was possible to arrive at a number of findings regarding this issue, relying on the following hypotheses:

3.1. Presentation and discussion of the first hypothesis, which states that...

Patients with chronic renal failure undergoing hemodialysis exhibit a depressive response.Depression manifests as a mood alteration characterized by persistent sadness, distress, crying spells, loss of appetite, anhedonia, dissatisfaction, non-acceptance, food refusal, and lack of contentment. Their lives revolve around the hemodialysis machine, a dependency observed across most cases in this study.

Results from clinical interviews, observations, and Beck Depression Inventory scores (ranging from 6-13) confirm moderate depressive symptoms, with potential escalation to severe depression given disease chronicity and accumulating sequelae. Some patients accept the illness but reject hemodialysis treatment, fostering pervasive boredom, pessimism, and overwhelming sadness due to its exhausting, lifelong nature and inescapable dependency, which exacerbates their suffering.

In Case 3 (female), depressive responses prominently manifest regarding marriage, where she expresses hopelessness, intensifying depression severity.

Depressive symptoms worsen with absent social support from peers and friends, coupled with diminished prior concern, as all cases unanimously noted irreparable relational changes. Excessive family attention induces feelings of weakness and self-dissatisfaction, while inadequate family care leads to neglect and perceptions of familial boredom. Economically, chronic renal failure inevitably causes fatigue and inability to perform strenuous work, heightening depression risk as patients cannot meet personal needs or support family materially—a pattern evident among male hemodialysis patients.

3.2. Presentation and Discussion of the Second Hypothesis

The second hypothesis posits that variations exist in the degree of depressive response resulting from chronic renal failure based on the age of onset.

Analysis of the four cases revealed comparable ages, onset ages, and durations of hemodialysis treatment. Differences in depression severity emerged, corroborated by Beck Depression Inventory scores ranging from 6-13, indicative of moderate levels, and supported by clinical interviews detailed in personal and medical case sections. For Case 1 (Ibrahim, age 25, two years on hemodialysis), results indicated no depression per Beck scores and clinical interviews, despite an initial strong shock and initial non-acceptance.

The researcher attributes this outcome to the pivotal role played by Ibrahim's family in supporting him, mitigating suffering from chronic renal failure—particularly through his mother's presence, who shared his burden and bolstered his psychological resilience, as he reported.

Post-mother's death, noticeable emotional fragility emerged; he no longer resembled his former self, deprived of her emotional support, leading to occasional withdrawal and isolation.

Case 2 Profile

Case 2 involves Issa, aged 31 years, single, with a first-year secondary educational level and low economic status (no income), diagnosed with chronic renal failure and undergoing hemodialysis treatment.

Clinical Assessment

Following the clinical interview where Issa responded fully to all questions, application of the Beck Depression Inventory yielded a score of 13, indicating moderate depression. This aligns with symptom clusters observed during the interview.

The researcher attributes this result to the subject's profound frustration and demoralization stemming from multiple factors, including resentment toward medical neglect and near-absent continuous physician oversight.

Despite articulating painful emotions, a glimmer of hope persists regarding kidney transplantation to end hemodialysis suffering-a treatment precipitating depression across all cases.

Per cognitive theory, hope alleviates depressive symptoms, imparting positive energy that propels the patient toward recovery.

Case 3 Profile

Case 3 (H_R, female, third-year secondary education, moderate economic status, single) has chronic renal failure. She resides in a harmonious family environment characterized by mutual understanding and respect among parents and siblings; her father works for a national company, her mother is a homemaker, and their income suffices without internal conflicts.

Clinical Assessment

The subject cooperated readily during the interview. Beck Depression Inventory total score of 3 indicates absence of depression, except items 3, 4, 12, and 13 reflecting boredom, fatigue, and appetite loss—attributable to non-acceptance of hemodialysis and hospital visits, preferring home-based treatment.

This confirms acceptance of hemodialysis itself but rejection of the hospital milieu and medical staff, echoing sentiments from Cases 2 and 3 regarding poor treatment. Overall, robust mental health stems from strong familial support, particularly maternal.

Case 4 Profile

Case 4 (Moussa, male, 29 years old, university student, moderate economic status, single) lives in a balanced family environment and expresses frequent gratitude toward his family.

Clinical Assessment

The interview revealed profound inner pain. Beck Depression Inventory indicated moderate depression per scoring scale (within 6-13 range), confirmed by responses across all items.

Despite comprehensive family support—including accompaniment during sessions and emotional solace ("My family supports me in my illness")—depression persists, evidenced by facial sadness, teary eyes averted from observers, and heightened reactivity when discussing the disease.

Observed Symptoms and Theoretical Context

Visible behaviors included successive sighs, incessant hand movements, and reduced speech, signaling anxiety during hemodialysis, underscoring the illness's pervasive impact. Fear of death and unavailability of kidney transplant—sole hope for escaping dialysis—exacerbates this.

English physician H. Maudsley (1976) noted in *Physiology of the Mind* that unexpressed emotions impair bodily functions; suppressed sadness or depression somatizes negatively (Belaazougui, 1991).

Broader Implications

Over 75% of chronic organic disease patients, especially chronic renal failure, exhibit comorbid neurological/psychological conditions: 40% depression, 20% panic attacks, 10% OCD, and generalized anxiety; psychotherapy significantly alleviates health anxiety.

Study hypotheses confirm fear, anxiety, and depression as primary psychological sequelae of chronic renal failure and hemodialysis. All cases show varying depression degrees, manifesting as chest tightness ("We feel tightness in our chest"), sadness, appetite loss, anhedonia, sleep disturbances, weight loss, reduced productivity, and existential despair tied to machine dependency—stemming from non-acceptance and mandatory treatment.

4.Conclusion:

Examination of four cases with chronic renal failure undergoing hemodialysis, via unstructured/structured clinical interviews and Beck Depression Inventory, reveals predominant psychological pain and suffering when discussing the illness, fostering persistent sadness and anxiety due to maladaptation, occasional avoidance, reticence, and expressive difficulties.

Chronic renal failure elicits depressive responses, facilitating depression onset through psychological complications including somatic disturbances (sleep disorders, appetite loss), sadness, pessimistic ideation, and reduced activity-confirming depressive reactivity.

Researchers emphasize psychological dimensions in somatic disorders, where bodily disturbances clearly impact psyche; scientific studies highlight psychology's role in stabilizing/exacerbating physical conditions or accelerating recovery (Belaazougui, 1991).

These findings pertain solely to the small sample, precluding generalization; future research remains essential for validation, replication, or refutation.

Recommendations:

Based on study findings, the following recommendations emerge:

- Conduct further studies exploring relationships between chronic renal failure patients and unexamined variables.
- Expand sample size and research scope for generalizable results.
- Prioritize psychological specialists in hemodialysis units.
- Implement pre-hemodialysis psychological preparation.
- Establish additional dialysis centers given disease prevalence and limited facilities to ease patient access.

Ethical Considerations

This study was conducted in accordance with internationally accepted ethical standards for research involving human participants. Prior to data collection, all participants were fully informed about the objectives, procedures, and nature of the study. Informed consent was obtained from each participant on a voluntary basis, and they were assured of their right to withdraw from the study at any stage without any negative consequences.

The principles of confidentiality and anonymity were strictly respected. Participants' personal identities were not disclosed, and all collected data were used exclusively for scientific and research purposes. The study procedures did not involve any physical or psychological harm, and particular care was taken to respect the psychological vulnerability of patients undergoing hemodialysis.

The research was carried out with respect for human dignity and in compliance with ethical guidelines applicable to psychological and clinical research.

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Conflict of Interest

The author declares no conflict of interest regarding the publication of this study. The research was conducted independently, and the results were not influenced by any financial, institutional, or personal relationships.

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