

MENTAL HEALTH AND ITS RELATIONSHIP WITH BIOSOCIODEMOGRAPHIC CHARACTERISTICS IN HEMODIALYSED PATIENTS

SALUD MENTAL Y SU RELACION CON LAS CARACTERISTICAS BIOSOCIODEMOGRAFICAS EN PACIENTES HEMODIALIZADOS

SAÚDE MENTAL E SUA RELAÇÃO COM AS CARACTERÍSTICAS BIOSOCIODEMOGRÁFICAS EM PACIENTES HEMODIADOS

Magali Rodríguez Vidal

Universidad de Concepción, Concepción Chile.

magaestela12@gmail.com

ORCID: 0000-0001-9595-121X

Elizabeth Badilla Aguilera

Centro de Salud Talcahuano, Chile

ORCID: 0000-0002-9887-0818

Mónica Cruz Pedreros

Universidad de Concepción, Concepción Chile

ORCID:0000-0003-1562-8063

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ABSTRACT

End-stage renal disease is considered a pandemic worldwide. In Chile 32% of the economic resources in health are destined to its treatment, being the hemodialysis the most common treatment in those patients. This pathology modifies the entire balance of the person, subjecting it to various stressors and causing alterations in the physical, psychological and social behaviors, directly impacting the mental health of patients. The objective of this research was to identify mental health and its relationship with biosociodemographic characteristics in hemodialysis patients, from the Chronic Unit at a Hospital in Las Higueras, Talcahuano. A descriptive, correlational and transversal quantitative study was carried out. The data was collected through an interview. The instrument used was the Golberg Scale to measure mental health plus biosociodemographic variables. Out of 53 participants, 58.5% presented absence of psychopathology, 26.4% presence and 15.1% suspicion. There were 56.6% men and 44.4% women, 60.3% were un a relationship, 50.9% had medium level formal studies, 83% were pensioned, and the average time on hemodialysis was 94.2 months. It was also found that the presence of diabetes mellitus was associated with a higher incidence of suspected psychopathology. Therefore, this study allowed us to conclude that the suspicion and / or presence of psychopathology was related to advanced age, female gender, low economic income, longer time on hemodialysis, being pensioned and suffering from diabetes. The absence was related to a higher educational level and well paid jobs.

Keywords: mental health, hemodialysis, nursing, human characteristics.

RESUMEN

La Enfermedad renal crónica terminal es considerada una pandemia a nivel mundial. En Chile un 32% de los recursos económicos en salud son destinados a su tratamiento, siendo la hemodiálisis la terapia, más utilizada en estos usuarios. Esta patología modifica todo el equilibrio de la persona, sometiéndola a diversos factores estresantes y provocándole alteraciones en el ámbito físico, psicológico y social, repercutiendo directamente en la salud mental de estos usuarios. El objetivo de esta investigación fue identificar la salud mental y su relación con las características biosociodemográficas en los pacientes hemodializados en una unidad de cuidado en Talcahuano, Chile. Se realizó un estudio cuantitativo descriptivo, correlacional y transversal. Los datos se recolectaron a través de una entrevista. El instrumento utilizado fue la Escala de Golberg para medir salud mental más variables biosociodemográficas. Los resultados obtenidos mostraron que: de un total de 53 pacientes, un 58,5% presentó ausencia de psicopatología, 26,4% presencia y el 15,1% sospecha; un 56,6% varones y el 44,4% mujeres, un 62,3% se encontraba en pareja, un 50,9 % poseía estudios de nivel medio, el 83% se encontraban pensionado, la media del tiempo en hemodiálisis fue de 94,2 meses. La presencia de diabetes mellitus se relacionó con una mayor incidencia de sospecha psicopatología. Este estudio permitió concluir que, la sospecha y/o presencia de psicopatología se relacionó con edad avanzada, sexo femenino, ingresos económicos bajos, mayor tiempo en hemodiálisis, estar pensionado y padecer diabetes. La ausencia se relacionó con mayor nivel educacional y trabajo remunerado.

Palabras claves: salud mental, hemodiálisis, enfermería, características humanas.

RESUMO

A doença renal crônica terminal é considerada uma pandemia em todo o mundo. No Chile, aproximadamente 32% dos recursos econômicos em saúde são destinados ao seu tratamento, sendo a hemodiálise a terapia mais utilizada no caso desses usuários. Essa patologia modifica todo o equilíbrio da pessoa, submetendo-a a diversos fatores estressantes e provocando alterações no estado físico, psicológico e social, repercutindo diretamente na saúde mental desses usuários. O objetivo desta pesquisa foi identificar a saúde mental e sua relação com as características biosociodemográficas em pacientes com hemodiálise do Talcahuano, Chile. Foi realizado um estudo quantitativo, descritivo, correlacional e transversal. Os dados foram coletados por meio de entrevista. O instrumento utilizado foi a Escala de Golberg, para medir a saúde mental, assim como variáveis biosociodemográficas. Os resultados obtidos mostraram que: de um total de 53 pacientes, 58,5% apresentavam ausência de psicopatologia, 26,4% presença e 15,1% suspeita; 56,6% homens e 44,4% mulheres, 62,3% tinham parceiro ou parceira, aproximadamente 50,9% tinham estudos de nível médio, 83% eram aposentados, e o tempo médio em hemodiálise foi de 94,2 meses. A presença de diabetes mellitus foi associada a uma maior incidência de suspeita de psicopatologia. Este estudo permitiu concluir que a suspeita e / ou presença de psicopatologia guardava relação com a idade avançada, sexo feminino, renda econômica baixa, maior tempo em hemodiálise, estar aposentado e sofrer de diabetes. A ausência foi relacionada a um maior nível de escolaridade e trabalho remunerado.

Palavras-chave: saúde mental, hemodiálise, enfermagem, características humanas.

INTRODUCTION

At present, chronic kidney disease (CKD) is an important public health problem. Its most advanced manifestation is the end-stage kidney disease (ESKD), which requires the substitution of the renal function by dialysis or transplantation. According to studies in Spain in 2005, the most frequent causes of CKD correspond mostly to a poor therapeutic adherence of chronic non-communicable diseases such as Diabetes Mellitus and Arterial Hypertension, which have tripled in the last decades, constituting a worldwide pandemic (1).

In Chile, 32% of the budget for Universal Access of Explicit Guarantees (AUGE) in health is allocated to the treatment of ESKD (2). Dialysis consists of a purifying method for toxins, electrolytes and excess body water, which can be performed through two techniques. One is the peritoneal dialysis, which uses the peritoneal membrane, a catheter that connects the membrane with the outside and dialysis fluid; this procedure is ambulatory and is done at the patient's home. The second is hemodialysis, which involves the use of a filter (artificial membrane) through which the blood passes, gets cleaned and returns back to the patient; it is an invasive, ambulatory treatment that requires three sessions per week of four hours at a time, performed in hospitals or clinics using highly specialized materials, requiring the permanent use of drugs, specific care of dialysis treatment, strict modifications in the diet, and changes in lifestyles (3-6).

Kidney disease alters the entire balance of the person and its environment by subjecting it to various stressors, causing multiple alterations in the physical, psychological and social aspects. In the physical aspect, patients experience cardiovascular problems (hypertension, hypotension, angina), skeletal muscles problems (pain, cramps, fatigue), gastrointestinal problems (nausea, vomiting and anorexia), immunological problems (skin allergies) and sexual dysfunction. In the psychological field, they experience mood disorders, and at the socioeconomic level, inability to have a full-time job and often loss of the previous one, triggering economic, personal and family problems, directly affecting the quality of life and mental health of these users (7, 8).

Joana Fornés in 2015 defines mental health as a "welfare state in which the individual is aware of his own abilities, can face the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his community". It is dynamic, fluid, and changes with the stress factors that arise in daily life (9). The changes generated by ESKD and hemodialysis treatment produce alterations in mental health in a significant percentage of patients. Mood and anxiety disorders are considered frequent in the first six months of treatment, but when they exceed six months there are concerns for their mental health, leading to the appearance of psychopathologies such as depression and anxiety disorders, more frequent in women and at early ages for both sexes (4, 7, 8, 10-12). Depression leads to mood disorders, producing greater morbidity and mortality in these users compared to other disorders, reflected in the lack of therapeutic adherence, specifically to the diet and failure to attend medical check-ups (13, 14). Depression in Chile, according to the National Survey of 2016-2017, showed a prevalence of 6.2% in the general population, being higher in women with an incidence of 10.1%, than in men (2.1%) (15). Anxiety has an incidence of 17.9% in the general population (16). These data allow us to deduce that mental health pathologies are present in a large number of the Chilean population. Disorders in mental health generate a phenomenon called

AVISA, which consists of years of healthy life lost due to pathology. Depression is the leading cause of AVISA in women and affects 23.2% of the general population. (14) According to the Chilean Society of Nephrology in 2017 the gross mortality of these patients was 10.9%, and 128 of them abandoned the treatment by their own or their family decision, without specifying the causes of abandonment or psychopathology (2). In view of the above, for nursing it is important to identify the level of mental health of these users, researching precocious alterations of phenomena such as low therapeutic adherence and abandonment of treatment among others, considering protective factors for each person, and thus generate strategies to improve their mental health, avoiding unfortunate events in this type of patient. The following study is aimed to identify the level of mental health and its relationship with the bio-socio-demographic characteristics of the hemodialysis patients of the Chronic Unit at a Hospital in Las Higueras, Talcahuano, during the period February-March 2017.

METHODOLOGY

A descriptive, cross-sectional and correlational quantitative study was performed on patients undergoing chronic hemodialysis during the first semester of 2017 at a Hospital Dialysis Unit in Las Higueras Talcahuano, Chile. In terms of population and sample, for statistical purposes, we worked with the entire population of 53 patients. The inclusion criterion was to be in chronic hemodialysis treatment in that center and to agree to participate voluntarily, while the exclusion criteria were for patients from other centers, patients from the acute care unit and those who refused to participate. The data collection procedure was carried out through a verbal interview conducted by one of the authors during the first two hours of dialysis therapy.

The measuring instrument used was the collection instrument bio-psycho-social profile of hemodialysis patients, which consisted of two sections: the first one, a questionnaire of bio-socio-demographic questions (age, sex, per capita income, added pathologies, alcohol consumption, marital status, employment status, residence, time on hemodialysis, schooling and number of people with whom he lives). The second, the Golberg Health Scale to assess mental health, validated in Spanish and approved by the Ministry of Health of Chile, Trucco and Cols. cited by Guic Sa et al in the year 2006. They describe it as having high reliability and validity; it consists of twelve questions that assess the presence of psychiatric disorders: depression, anxiety, social inadequacy and hypochondria; it gives four response options in a Likert type format with a minimum of 0 points to a maximum of 12 points, divided into three categories: absence of psychopathology (0 to 4 pts), suspicion of subthreshold pathology (5 to 6 pts) and presence of psychopathology (7 to 12 pts = indicative) (17). The study was approved by the Ethics Committee of the Faculty of Nursing of the University of Concepción and the research committee of the Hospital, in addition to the informed consent signed by each of the participants, considering and respecting the seven ethical requirements raised by Ezekiel Emanuel.

For the statistical analysis, the data obtained was loaded in an Excel spreadsheet and later analyzed using the SPSS V. 17 software patented at the University of Concepción. For descriptive statistics, frequency distribution, measures of central tendency and dispersion measures (ranges and standard deviation) was used the Chi-square test of independence, and the Pearson correlation was used for the inferential analysis.

RESULTS

The bio-socio-demographic profile of the population consisted of 53 patients, with men predominating (56.6%) over women. The average age corresponded to 58.9 years (18 - 87 years), more than half were married or with a partner (62.3%), and 11.3% lived alone. 50.9% reported medium level studies, 28.3% basic studies and 17% higher. In relation to the employment situation, most of them (83%) were retired and only 17% worked or studied. 98.1% had at least basic sanitation facilities and lived in the urban sector, and 96.2% reported not to consume alcohol (Tables 1 and 2).

Table 1. Nominal and percentage distribution of the bio-socio-demographic characteristics of hemodialysis patients.

VARIABLES	CATEGORY	FRECUENCY	PERCENTAGE
SEX	Male	30	56,6
	Female	23	43,4
MARITAL STATUS	With partner	33	62,3
	Without partner	20	37,7
EDUCATION	None	2	3,9
	Basic	15	28,3
	Medium	27	50,9
	Superior	9	17,0
WORK SITUATION	Retired	44	83,0
	Works or studies	9	17,0
RESIDENCE	Urban	52	98,1
	Rural	1	1,9
ALCOHOL CONSUMPTION	No	51	96,2
	Yes	2	3,8

Source: Personal collection (2017)

In Table 2 it can be observed the means of the quantitative variables. The time spent in hemodialysis was 94.2 months, the monthly per capita income fluctuated between \$ 29.8 and \$ 1007.19 dollars, the number of people living in the home ranged from 0 to 11, with an average of 2, 55 and about the added pathologies, diabetes (50.9%) and hypertension (83%) predominated over other chronic diseases.

Table 2: Second part of the nominal and percentage distribution of the characteristics

BIO-SOCIO-DEMOGRAPHIC QUANTITATIVE VARIABLES				
	N	Minimum	Maximum	Average
AGE	53	18	87	58,9
MONTHS IN DIAL	53	3	393	94,2
PERCAPITA INCOME	53	US\$31,4	US\$1007,14	US\$233,87
NUMBER OF PERSONS LIVING WITH	53	0	11	2,55

Source: Personal collection (2017)

Table 3: Mental Health according to the Golberg Scale in patients undergoing hemodialysis in the Chronic Unit at a Hospital in Las Higueras Talcahuano, 2017.

MENTAL HEALTH	Level	Frequency	Percentage
	Absence of psychopathology	31	58,5
	Suspected psychopathology	8	15,1
	Presence of psychopathology	14	26,4

Source: Personal collection (2017)

Regarding mental health as assessed by the Golberg Scale (Table 3), it was found that 58.5% presented absence of psychopathology, 26.4% had a presence and 15.1% were suspected to have it. From the analysis of some items it was reported that 83% did not present alterations in decision making, 81.1% said they were happy despite their circumstances and 77.4% reported having managed to face their difficulties despite them, 52.8% presented an alteration in the perception of their role in life, 59.9% mentioned that the quality of sleep has been affected by their concerns, and 45.3% have felt depressed or lapsed in the last time and in equal proportion overwhelmed and tense. (Graphics 1 and 2)

Graph 1: Tendency to the absence of psychopathology in patients undergoing hemodialysis

Have you felt capable of making decisions?	83.0%
Do you feel reasonably happy considering all your circumstances?	81.1%
Have you been able to cope adequately with your problems?	77.4%
Have you felt that you cannot overcome your difficulties?	71.7%
Have you lost confidence in yourself?	67.9%
Have you thought that you are a person who is not worth anything?	66.0%
Have you been able to enjoy your normal activities every day	66.0%
Have you been able to concentrate well on what you do?	62.3%
Have you felt unhappy or depressed?	54.7%
Have you felt constantly overwhelmed and tense?	54.7%
Have your worries caused you to lose a lot of sleep?	49.1%
Have you felt that you are unemploying a useful role in life?	47.2%

Graph 2: Tendency to the presence and suspicion of psychopathology in these patients

Have you felt that you are unemploying a useful role in life?	52.8%
Have your worries caused you to lose a lot of sleep?	50.9%
Have you felt unhappy or depressed?	45.3%
Have you felt constantly overwhelmed or tense?	45.3%
Have you been able to concentrate well on what you do?	37.7%
Have you thought that you are a person who is not worth anything?	34.0%
Have you been able to enjoy your normal activities every day?	34.0%
Have you lost confidence in yourself?	32.1%
Have you felt that you can not overcome your difficulties?	28.3%
Have you been able to cope adequately with your problems?	22.6%
Do you feel reasonably happy considering all your circumstances?	18.9%
Have you felt capable of making decisions?	17.0%

Graph 1 & 2 - Source: Personal collection (2017).

From the bivariate analysis, it could be deduced that women were more prone to present mental health disorders (χ^2 0.328); age presented a Pearson correlation of +0.115, inferring that the older persons have a greater probability to present alterations in their mental health. Labor or student activity (χ^2 116) and higher level of education (χ^2 0,141) were more likely to present no signs of psychopathology (Table 4).

Table 4: Relationship between mental health level and sex of hemodialysis patients in the Chronic Unit of a Hospital in Las Higueras, Talcahuano

Biosociodemographic variables			MENTAL HEALTH LEVEL		
			No psychopathology	Suspected psychopathology	Presence of psychopathology
Sex	Male	Frecuency	20	3	7
		% sex	66,7	10,0	23,3
	Female	Frecuency	11	5	7
		Percentage within sex	47,8	21,7	30,4
Marital status	With partner	Frecuency	19	6	8
		% MS	57,6	18,2	24,2
	W/o partner	Frecuency	12	2	6
		% MS	60	10	30
Education (E)	None	Frecuency	0	1	1
		Percentage	0	50	50
	Basic	Frecuency	6	4	5
		Percentage	40	26,7	33,3
	Middle	Frecuency	17	3	7
		Percentage	63,3	11,1	25,9
Higher	Frecuency	8	0	1	
	Percentage	88,9	0	11,1	

Source: Personal collection (2017).

In relation to the number of people with whom the patient lives, it was found that the higher the number, the greater the probability of suspicion or presence of psychopathology (Pearson correlation of 0.12). Individuals who lived alone were more prone to absence of psychopathology (χ^2 0.7). Regarding per capita income, the higher the income, the greater the absence of psychopathology (Pearson 0.112) and the longer the time of dialysis, the greater the possibility of alteration in mental health (Pearson 0.143). In relation to aggregate pathologies, only users with diabetes mellitus had a greater tendency to present suspicion and / or presence of psychopathology (χ^2 0.04) (See Table 5).

Table 5: Relationship between the level of mental health and activity in hemodialysis patients.

Bio-socio-demographic variables		MENTAL HEALTH LEVEL			
			Absence of psychopathology	Suspected psychopathology	Presence of psychopathology
Activity	Works or studies	Frequency	8	0	1
		Per. within activity	88,9	0	11,9
	Retired	Frequency	23	8	13
		Per. within activity	52,3	18,2	29,5
Pathologies	If Diabetic	Frequency	10	7	10
		Per. within activity	37	26	37
	If not Diabetic	Frequency	21	1	4
		Per. within activity	80,8	3,8	15,4

Source: Personal collection (2017).

DISCUSSION

The population was composed mainly of men. This phenomenon may be related to the fact that women have greater therapeutic adherence to health controls and treatment indications (medication, diet, activity, etc.). Age was presented in a range of 18 to 87 years, with a mean of 58.9 years, similar to that reported at the national level, where this pathology and its implications start more and more at early ages (8, 18).

In this study, a significant number of the population (58.5%) was found to be free of psychopathologies according to the Golberg Scale. It is important to note that this does not provide a specific diagnosis of mental health; it only generates suspicion of psychopathology, which must be confirmed by a specialist. The sum of suspicion and presence represented 41.5%, which, if confirmed as depression or anxiety, would be similar to what was reported by other authors at the national and international level (7, 8).

These results differ from other studies, which reported a higher prevalence of mental health disorders, leading to depressive symptoms, severe depression and / or severe anxiety in these patients (4, 11, 14, 19). This difference could be due to multifactorial causes, such as the measuring instruments, number of people, sex, time in dialysis therapy, etc. The suspicion and presence of psychopathology was mainly related to females, which could be associated with characteristics of the gender, such as greater exposure or greater response to daily stress, higher concentrations of biogenic amines and endocrine changes that occur with menstruation and in menopause, added to the role of women in Chilean society as housewives, mothers, workers and sometimes head of households and / or informal caregivers of a dependent third party, which would alter the ability to respond to stressful situations avoiding adaptation to harmful agents for mental health, similar to that reported by other authors (10, 11, 14, 20).

Older age and longer time on hemodialysis were positively related to the presence and suspicion of psychopathology. Aging is often accompanied by various comorbidities and social stigmas that favor crippling situations, giving rise to the appearance of negative feelings such as nostalgia, melancholy and sadness, which, over time, trigger psychopathologies such as anxiety and depression disorders, in accordance with what has been reported by other authors (4, 10). A longer time in dialysis therapy generates a process of transition and adaptation to different stressors, which in the initial stages are adequately addressed by the users, but after five to ten years they produce an increase in comorbidities, decreasing the functionality of individuals and performance in their past social role, affecting their mental health (4, 11, 21). It was noted in this study that not having a partner was not a risk factor in mental health, despite the fact that empirical references show us that the company and the affective bond granted by a third party diminishes feelings of loneliness and anguish, providing support to the patient and the health team, facilitating the path to therapeutic adherence and compensation of the pathology (21).

CONCLUSIONS AND FINAL CONSIDERATIONS

The population of hemodialysis patients of the Hospital Chronic Unit in Talcahuano has a greater tendency to the absence of psychopathology. Optimal mental health was related to higher income, younger age, male sex, doing some activity (work or study), living with someone else, high educational levels, less time on hemodialysis and fewer people with whom they lived. The suspicion and presence of psychopathology was related to the female sex, older age, low income, low educational level, being retired, having diabetes, spending more time in dialysis therapy and living with a greater number of people in the home.

Based on the above, it is the responsibility of the health teams to devise specific strategies and protocols to detect early mental health conditions in this population, providing a holistic, humanized and multidisciplinary care, developing interventions that favor their own self-care, independence and self-esteem, diminishing feelings of anguish, sadness and dependence among others. In the development of these strategies it is important to highlight the role of the nursing professional, who is responsible for the direct and permanent care of these users, so it would be advisable to implement, within the nursing process, a specific and programmed mental health assessment, with validated instruments that facilitate early detection allowing timely management through crisis intervention and timely referral if necessary.

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