Prevalence of Depression and Anxiety and their Association among End Stage Renal Disease Patients undergoing Hemodialysis in Kuwait

Abstract

Background and objectives. Studies showed that depression and anxiety affect many End Stage Renal Disease (ESRD) patients undergoing dialysis. The aims of this study are (1) estimate the prevalence of depression and anxiety among ESRD patients undergoing hemodialysis (HD) in Kuwait (2) estimate and test associations between depression and anxiety with several socio-demographic factors and disease profile characteristics (3) provide recommendations for future interventions that will alleviate the burden of depression and anxiety.

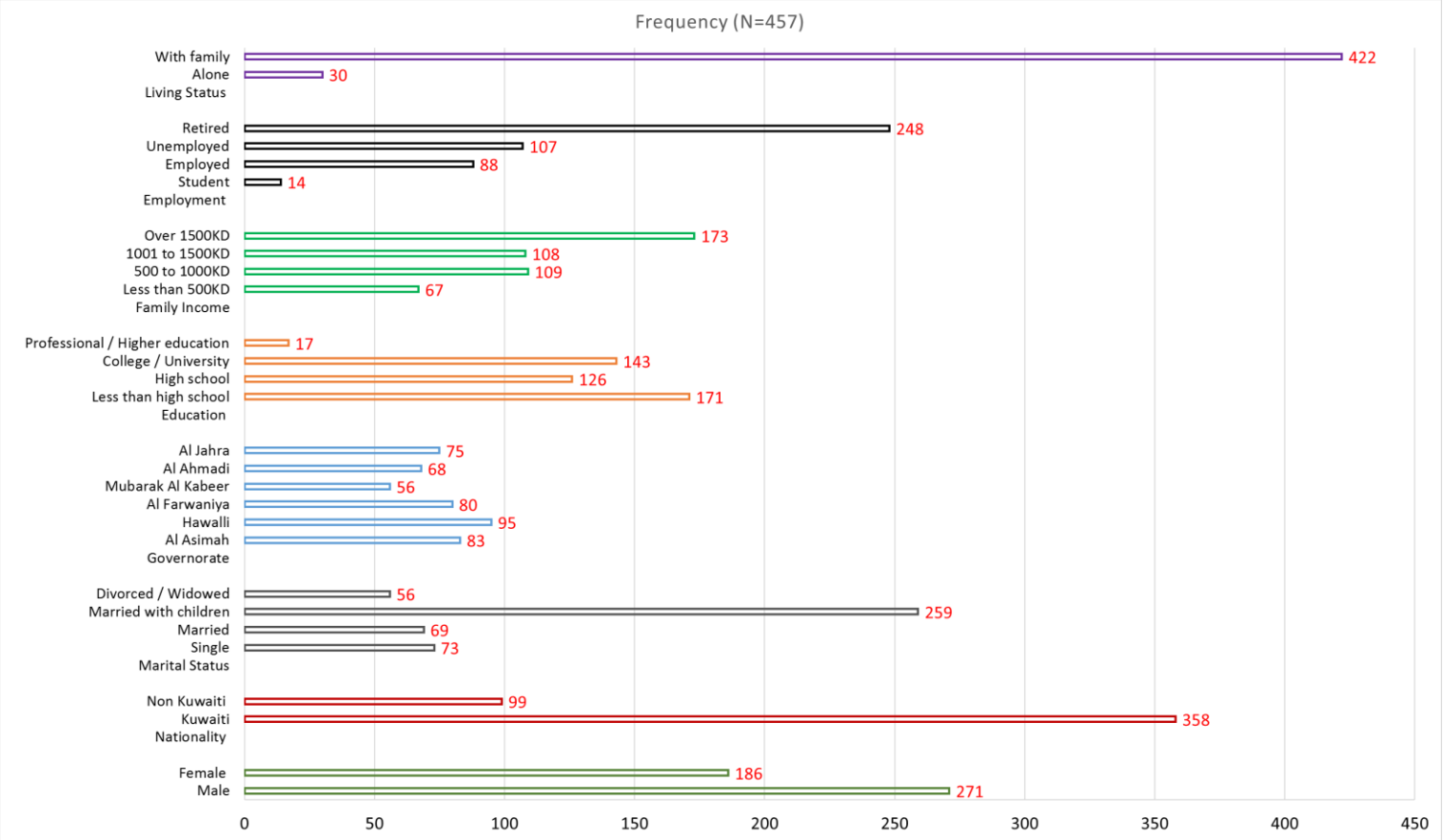
Methods. A cross-sectional study conducted across all governmental dialysis centers covering all six governorates in Kuwait. Data from a convenient sample of 457 patients undergoing HD were selected. A score for depression and anxiety is calculated using Hospital Anxiety and Depression Scale (HADS), which is widely used to screen for anxiety and depression among ESRD patients.

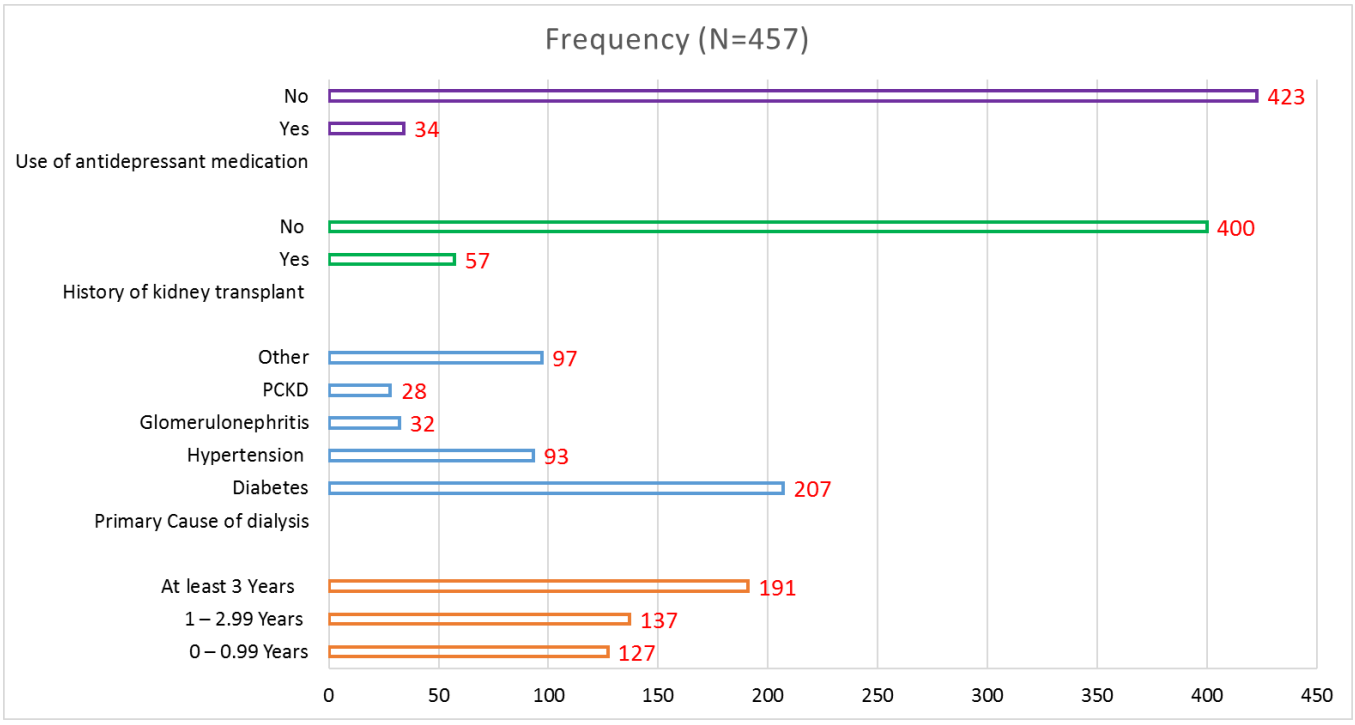
Results. The average age of patients was 53.1 ± 14.6 years. The prevalence of depression and anxiety among patients were 21.7% (n=99) and 21.4% (n=98), respectively. Approximately, 12.6% had both depression and anxiety. Multivariate logistic regression modeling was used to model the relationship between depression or anxiety and several covariates. Several factors are significantly associated with the risk of depression and anxiety among HD patients, such as gender, educational level, and family income as well as duration on dialysis and primary cause of ESRD.

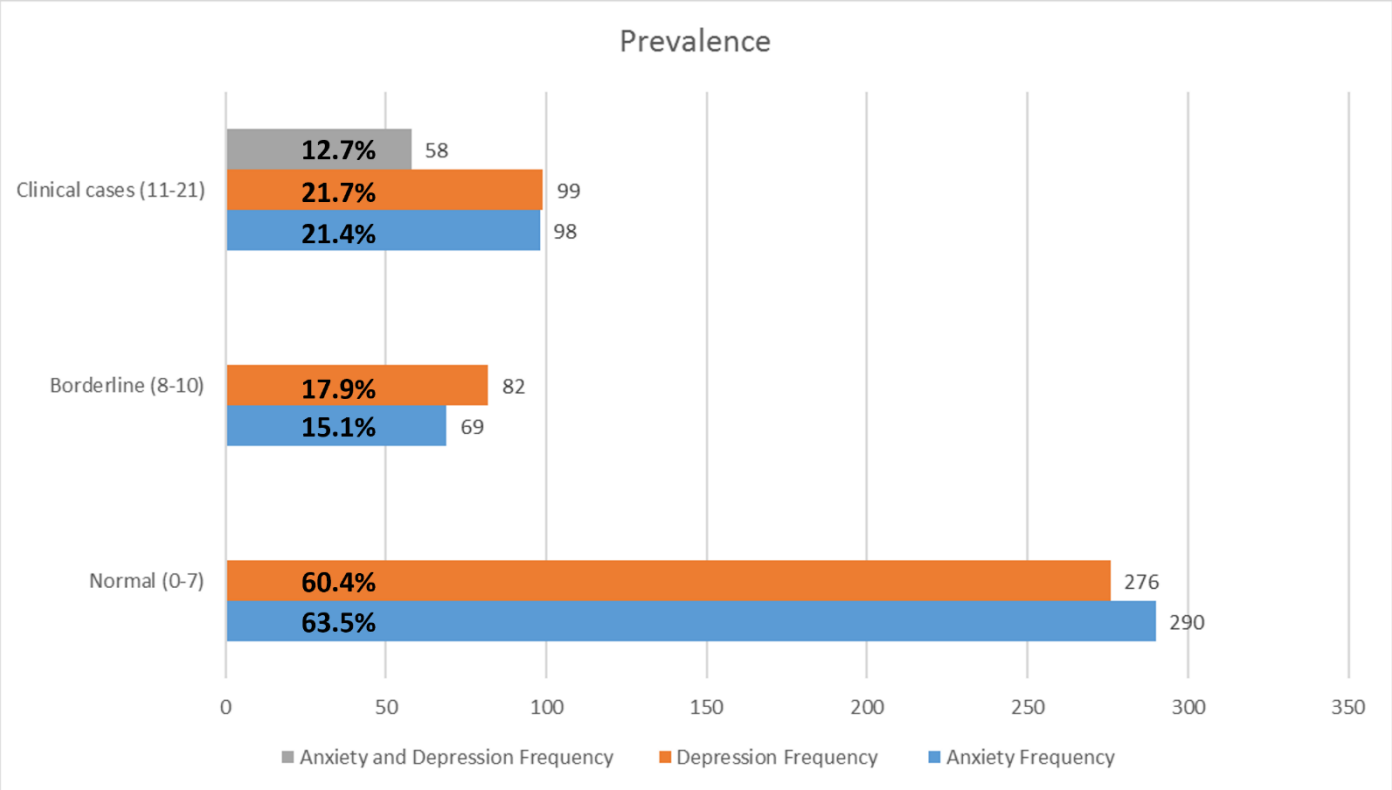
Conclusions. The results of this study indicate that depression and anxiety are prevalent among ESRD patients undergoing HD in Kuwait. These mental problems may negatively affect the quality of life of ESRD patients and this requires continuous screening for signs and symptoms of anxiety and depression. Future interventions should target females, low- income patients, patients on dialysis between one and three years, and those with glomerulonephritis as their primary cause of ESRD.

Word Count: 287

Keywords: Depression, Anxiety, ESRD, Hemodialysis, HADS, Kuwait


Frequency (N=457)
With family
Alone
Living Status
422
30
Retired
Unemployed
Employed
Student
Employment
248
107
88
14
Over 1500KD
1001 to 1500KD
500 to 1000KD
Less than 500KD
Family Income
173
108
109
67
Professional / Higher education
College / University
High school
Less than high school
Education
17
143
126
171
Al Jahra
Al Ahmadi
Mubarak Al Kabeer
Al Farwaniya
Hawalli
Al Asimah
Governorate
75
68
56
80
95
83
Divorced / Widowed
Married with children
Married
Single
Marital Status
56
259
69
73
Non Kuwaiti
Kuwaiti
Nationality
99
358
Female
Male
186
271
0
50
100
150
200
250
300
350
400
450


Frequency (N=457)
No
Yes
Use of antidepressant medication
423
34
No
Yes
History of kidney transplant
400
57
Other
PCKD
Glomerulonephritis
Hypertension
Diabetes
Primary Cause of dialysis
97
28
32
93
207
At least 3 Years
1 – 2.99 Years
0 – 0.99 Years
191
137
127
0
50
100
150
200
250
300
350
400
450


Prevalence
Clinical cases (11-21)
Borderline (8-10)
Normal (0-7)
12.7%
58
21.7%
99
21.4%
98
17.9%
82
15.1%
69
60.4%
276
63.5%
290
0
50
100
150
200
250
300
350
Anxiety and Depression Frequency
Depression Frequency
Anxiety Frequency