ASSESSMENT OF DEPRESSION AMONG PATIENT ON HEMODIALYSIS

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Abstract:
*Background: Dialysis is a lifesaving procedure opted in end stage renal disease patients. Depression is one of the most impeding complications associated with the hemodialysis the sequele of which sometimes leads to non-compliance and increases the morbidity and mortality of renal patients due to socioeconomic factors. This study was designed with the motive to assess the depression among the patients on hemodialysis. Methods: This is an observational study among 100 admitted patients undergoing hemodialysis at District Headquarters Hospital Khushab. After seeking informed consent, the respondents were requested to complete Beck Depression Inventory consisting of 21-question MCQs. Descriptive statistics were applied to compute the responses. Results: The study population showed depression of mild (32%), borderline (14%), moderate (18%), severe (7%) and extreme (5%) grade and the remaining (24%) subjects did not show depressive symptoms. Conclusions: Majority of patients undergoing hemodialysis were depressed. Major risk factors for depression were marital status of the patients, low literacy rate, gender and those started on dialysis recently.
Keywords: Beck's depression inventory, chronic kidney disease, depression, hemodialysis*

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INTRODUCTION:

Depression is a common psychiatric complication associated with end-stage renal disease (ESRD) patients affecting the treatment outcome. The prevalence in confirm cases is estimated to be around 20 to 30%. [1] Depression is a less probed entity despite being next to hypertension in incidence in renal patients. [2-6] Due to the overwhelming renal failure to doctor ratio the chances of overlooking the depression has increased. [7]

An organized evaluation of depression in hemodialysis patients can extract information about their ideas, concerns and expectations regarding their health status. [8, 9] Depression poses multitude health hazards leading to non-adherence, aborting dialysis sessions and delaying the treatment options. [10] It is therefore imperative to screen the vulnerable patients before commencing the treatment using refined tools and approaches so as to synergize the beneficial effects of the hemodialysis with the clinical outcome. [11, 12]

Therefore, it is essential to maintain proper documentation of the incidence, prevalence, clinical picture and associated risk factors at the time of presentation.

Beck's Depression Inventory (BDI) is a time tested and universal model modified for rating the depression in hemodialysis patient because of the clinical overlap.13 Little has been studied about this subject in Pakistan therefore this cross-sectional study was conducted with the vision to assess depression among renal failure patients undergoing hemodialysis at District Headquarters Hospital Khushab Punjab Pakistan.

METHODS:

After seeking ethical approval from the competent authorities and formal permission from the Head of Department District Headquarters Hospital Khushab Punjab Pakistan. : This observational study among 100 admitted patients undergoing hemodialysis was conducted after obtaining prior informed consent. The respondents were requested to complete Beck Depression Inventory consisting of 21-question self-report MCQs translated into Urdu for easy interpretation. The lowest possible score is 0 and the highest possible score is 63.

The score range and their respective interpretation is listed
as follows

- 1-10 - Normal
- 11-16 - Mild mood disturbance
- 17-20 - Borderline clinical depression
- 21-30 - Moderate depression
- 31-40 - Severe depression
- > 40 - Extreme depression

A brief demonstration was given about the content and purpose before the study. Socio demo graphic and clinical details were obtained.

Inclusion criteria
- >18years of age of either sex,
- Patients undergoing hemodialysis.

Exclusion criteria
- Malignancy
- Patients suffering from any psychiatric illness or taking any treatment
- Those who are intellectually unable to answer questionnaires and illiterates
- Those who refused to participate

Descriptive statistics and Microsoft Excel were applied to compute the responses.

A total of 112 patients were screened. 08 subjects were excluded as they could not read and write in local language Urdu and 4 patients refused to give consent. Rest 100 subjects were enrolled for the study.

Table.1 Socio demographic details of the subjects

Age (Years)	Frequency (n)	Percentage (%)
20-29	24	12
30-39	36	18
40-49	52	26
50-59	68	34
>60	20	10
Sex		
Male	156	78
Female	44	22
Qualification		
Primary Education	122	56
Secondary Education	48	24
Higher Secondary Education	26	13
Bachelors/Masters	14	7
Occupation		
Daily Wagers	124	62
Private Business	62	31
Government Service	14	07
Monthly Salary in PKR		
<25,000	104	52
25,000 -50,000	68	34
>50,000	28	14
Marital Status		
Unmarried	108	54
Married	76	38
Divorced/Widowed	16	08
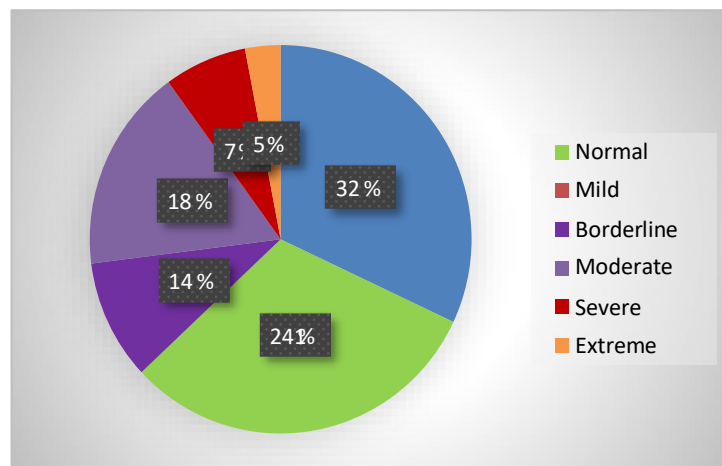
Figure 1: Grades of depression

RESULTS:
The study population showed depression of mild (32%), borderline (14%), moderate (18%), severe (7%) and extreme (5%) grade and the remaining (24%) subjects did not show depressive symptoms

DISCUSSION:
The responses to the Beck's depression inventory revealed that majority of our ESRD patients suffered from depression. We found that majority of the subjects were mildly depressed (32%), 14% of the

subjects were borderline depressed, 18% moderately depressed and 7% severely depressed. About 5% of the subjects showed extreme depression and 24% of the study population did not show depressive symptoms.

Our findings were not homologous to the identical studies which reported 29%, 30% and 27.4% mild, moderate and severe level of depression in their patients respectively. [14] According to another study 16.5% of patients had no depression, 25.6 % had mild, 45.9% had moderate and 12% had severe depression. [15]

Contributing risk factors included illiteracy, financial constraints, not married status, female gender, and comorbid states. Our study showed a prevalence of depression among the younger age groups.

In our study, majority of the subjects were unmarried (54%) 3% and 7% of the subjects showed severe depression among married and unmarried subjects when compared together. This may be due to the existence of social support in the form of a life partner. This was contrary to the results of other studies. [15, 16] The justification being married and undergoing hemodialysis adds to the financial burden, alters as children are considered as the responsibility of the parents.

The study identified that the females showed a greater tendency for getting depressed than males. This finding was identical to other studies where females were found to be almost twice more depressed than males. [17] Where as some studies advocated that men were more vulnerable for catching depression. [18, 22]

Majority of the depressed subjects in our study belonged to illiterate class, which is similar to the statistics of other studies. [15, 23, 24] It was discovered that depression was more common during the early session of hemodialysis than those having a patent A-V fistula.

LIMITATIONS OF THE STUDY
The limitation of the study can be attributed to the small sample size and lack of probing in the diverse etiology of the depression.

CONCLUSION:
The study renders weightage to screening and diagnosis of depression at the pre-dialysis session phase so that necessary interventions can be adopted to elevate the standard of care and improve the clinical outcome. As noticed the prevalence of depression was high among younger patients, female gender,

unmarried participants and those on the initial sessions of dialysis. Proper information sharing regarding pros and cons, course of treatment, adverse effects and risk factors should be ensured at the pre-session phase and if needed psychiatric advice may be sought.

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