



# THE NEED FOR ANTIDEPRESSANTS IN CHRONIC HAEMODIALYSIS



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## INTRODUCTION:

Including a patient with end renal terminal disease in a hemodialysis program goes to physiological and pathological adaptations, as a result of a long stress, but also specific to the hemodialysis unit. So, depression is considered to be a predictable and frequent complication. In the etiology of the depression we have to consider somatic factors such as: uremic toxicity, atherosclerosis, neurological complications, anemia, cardiovascular events, metabolic complications.

## PURPOSE:

To test our hypothesis that depression scores measured with the Beck Depression Inventory (BDI) directly correlate with quality of life indicators measured by the SF-36 questionnaire.

## METHODS:

We administered the SF-36 questionnaire and the BDI twice at the start of the study and after one year – to 102 non-diabetic patients undergoing 4-hour haemodialysis three times a week at St Joan Emergency Hospital, Bucharest. We performed statistical analysis on the average BDI scores at start and end of the study.

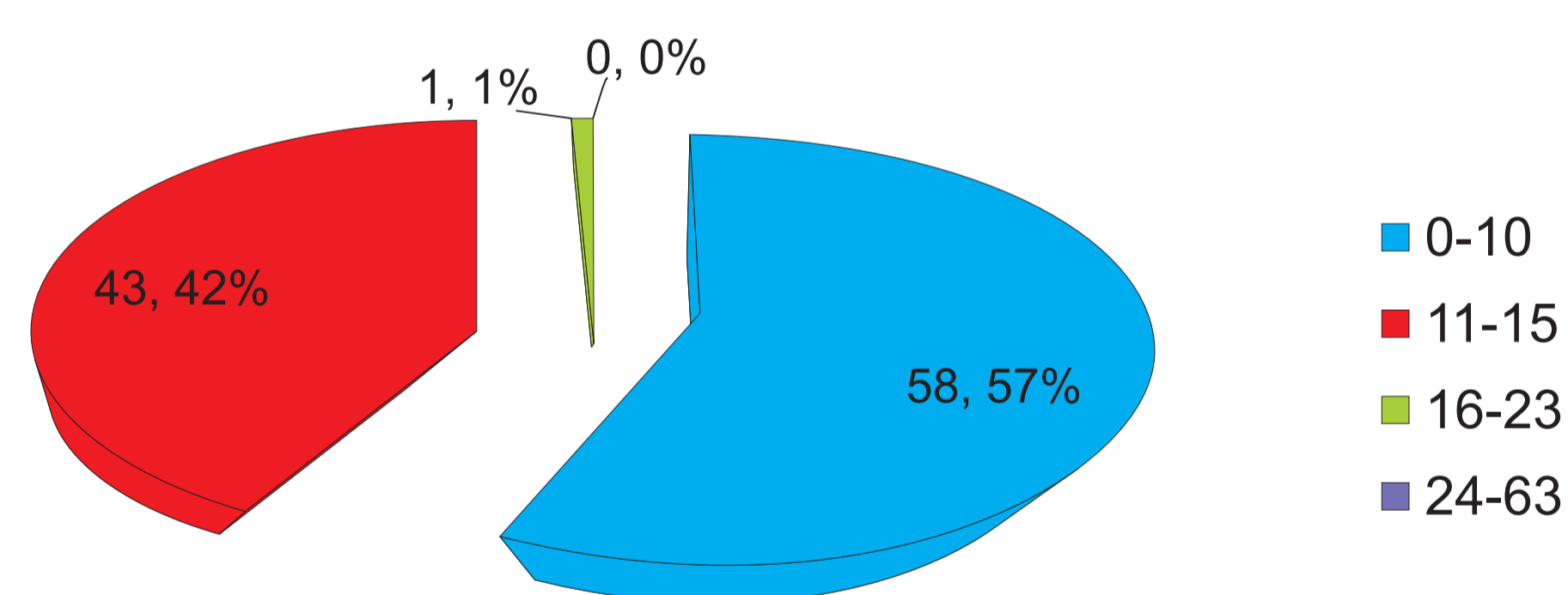
We interpreted the depression scores as follows:

NORMAL	0-10
MILD DEPRESSION	11-15
MODERATE DEPRESSION	16-23
SEVERE DEPRESSION	24-63

## RESULTS:

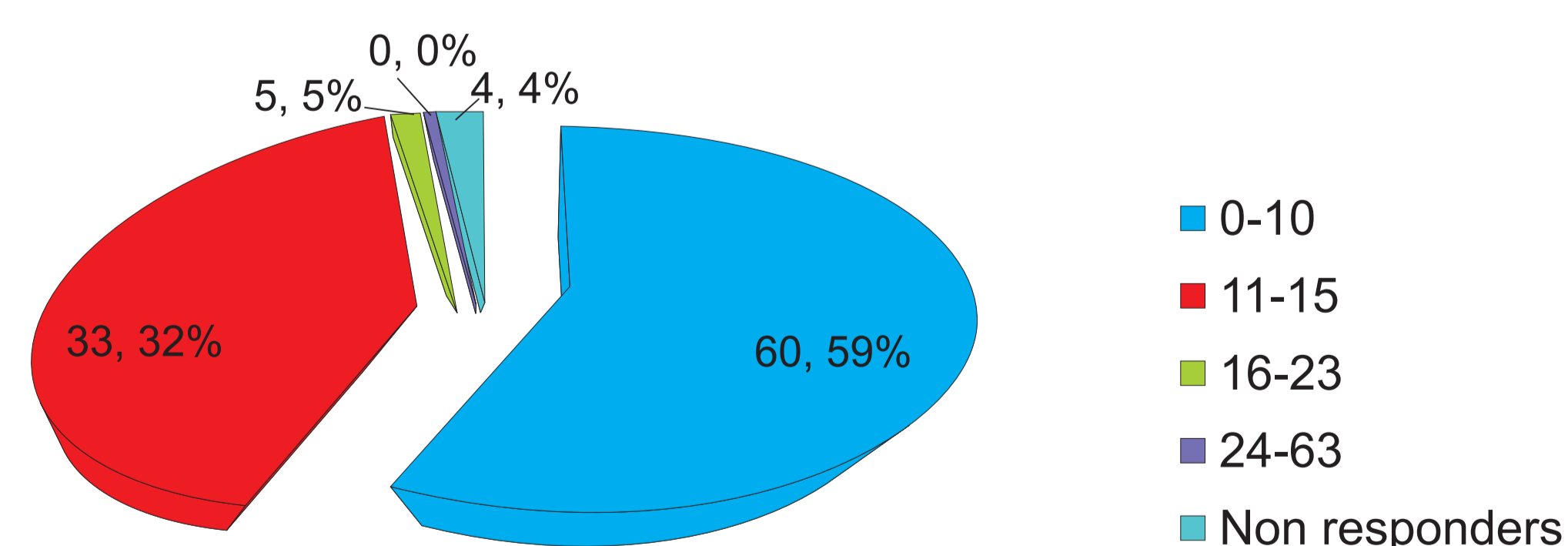
Analysing the frequency of depression at the beginning of the study we found the highest number of patients (58 patients, 57%) in the first group (scores between 0 and 10), 43 patients (42%) in the second group (between 11 and 15), one patient in the third group (between 16 and 23), and no patient in the group with severe depression.

### • Evaluation of depression

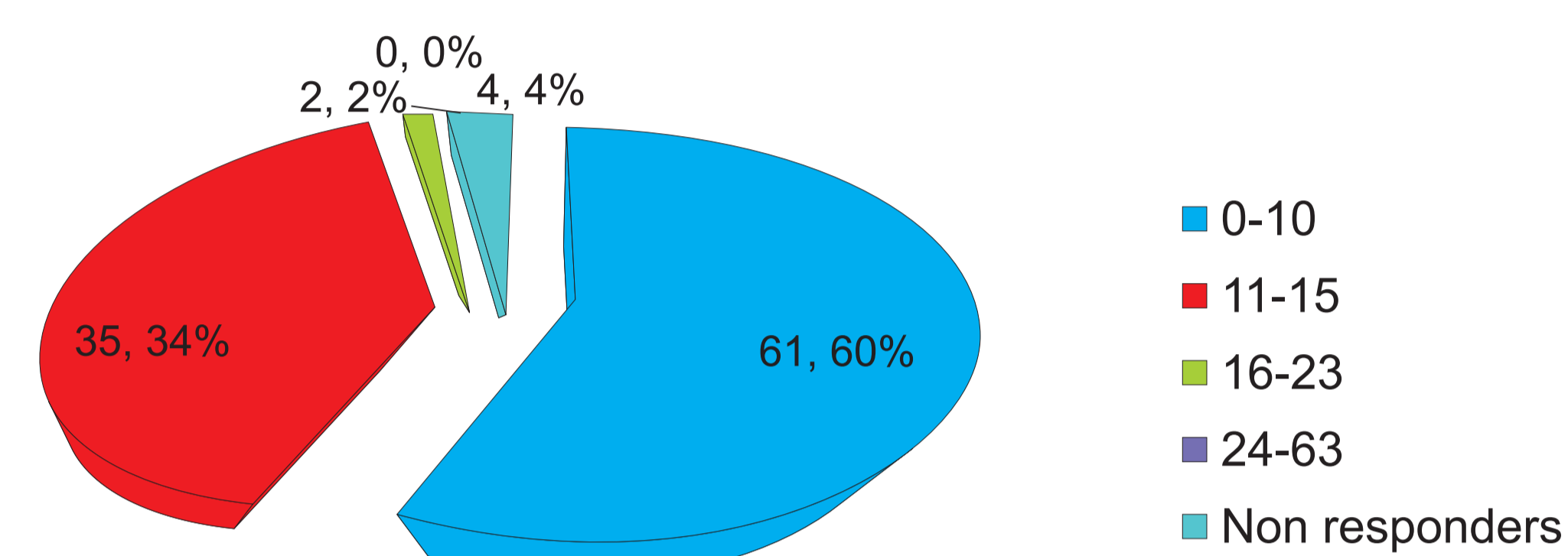


Analysis of the data after one year showed there were 60 patients with scores between 0 and 10, 33 with scores between 11 and 15, and 5 with 24–63; 4 patients were lost to follow-up (exitus, vegetative state).

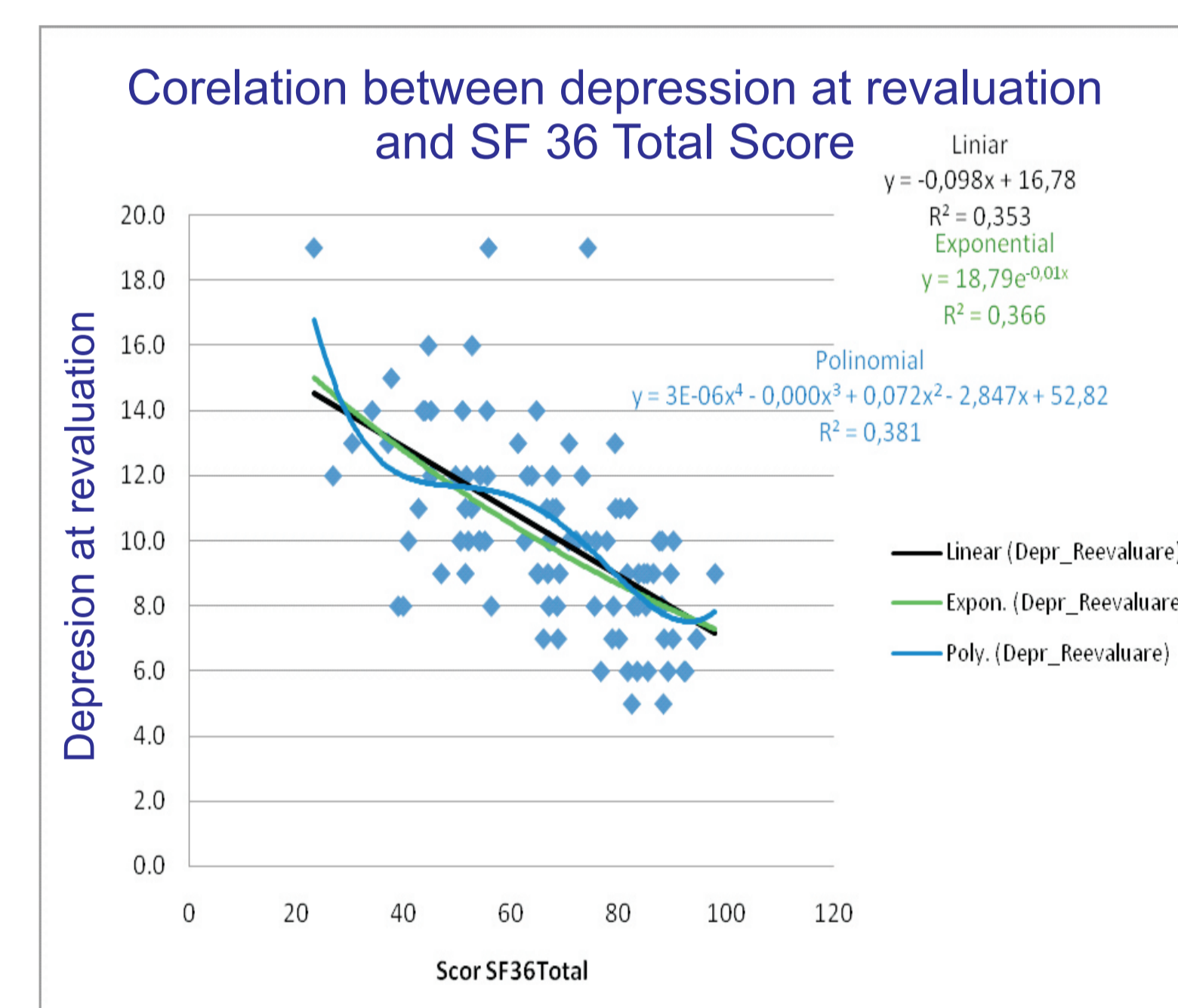
### • Reevaluation of depression



### • Average depression



We noticed a lack of linear correlation between depression and quality of life, with the square of the regression coefficient being only 0.34 [that is, a linear model explains only 34% of the data]. Other models (logarithmic, polynomial, exponential) did not yield better correlation results. The Wald test P value of 0.000000 shows that there is an influence of the variable depression on the SF-36 total.



## DISCUSSIONS:

A study by Lopes et al. (2002) showed that more frequent depressive symptoms present a higher risk of mortality, discontinuation of haemodialysis and more frequent hospitalisations [1].

The study by Kimmel and Peterson (2006) reflects the importance of treatment for depression, as it not only reduces the intensity of depressive symptoms, but also improves quality of life indicators [2]. Although there is a lack of well-powered studies on antidepressant medication in the haemodialytic population, there is some evidence that selective serotonin reuptake inhibitors are efficient. Fluoxetine, the antidepressant most frequently studied in chronic renal failure, showed efficiency and lack of adverse effects [3], and sertraline, bupropion and nefazodone have also been shown to have beneficial effects.

## CONCLUSIONS:

- We found a high prevalence of mild depression, and a negative correlation between the variables studied.
- It is not clear whether depression has a causal role in the negative evolution of patients, is a marker of comorbidities or is an indicator of severity.
- From the medical point of view there is an influence of depression on quality of life, but there is no linear correlation.

## References:

1. Lopes AA, Bragg J, Young E, Goodkin D, Mapes D, 2002: Depression as a predictor of mortality and hospitalization among hemodialysis patients in the United States and Europe. *Kidney Int* 62:199–207.
2. Kimmel PL, Peterson RA, 2006: Depression in patients with end-stage renal disease treated with dialysis. Has the time to treat arrived? *Clin J Am Soc Nephrol* 1: 349–352.
3. Blumenfeld M, Levy NB, Spinowitz B, 1997: Fluoxetine in depressed patients on dialysis. *Int J Psychiatry Med* 27(1): 71–80.

**I have no conflict of interest.**