

# Emotional disorders related to pain and clinical aspects in patients undergoing chronic haemodialysis.





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# INTRODUCTION

- Haemodialysis patients  stressful and threatening situations since diagnosis. The impact of **emotional disorders** can play a role in adaptive behaviour and can be a determinant to the progress of the chronic illness (DeJean *et al.*, 2013).
- Chronic kidney disease  **stress** and **reduces the quality of life** (Perales-Montilla *et al.*, 2013).

# INTRODUCTION

➤ Progress in medical technology **vs** Progress in psychosocial well-being.

➤ KDIGO recommends to control the levels of health related quality of life as well as other clinical parameters.

➤ **Negative emotions** can increase: morbidity and mortality of patients



# INTRODUCTION

Publication of the EDTNA/ERCA and Arbor Research Collaborative for Health, and DOPPS in 2017: Ten years of Collaboration;

- HRQOL ↔ death
- HRQOL is a better indicator to identify mortality and hospitalisation than serum albumin (Mapes *et al* 2003) (Tentori *et al* 2010)



# INTRODUCTION

- Emotional Intelligence (EI) as an indicator of:

- Health
- Well-being
- Vital satisfatcion
- Coping strategies
- General psychological adjustments



- EI is composed of three areas:  
attention, clarity and repair of the emotions.

(Martins, 2010) (Schutte, 2007) (Salovey *et al.*, 1995)

# INTRODUCTION

- Analytical parameters in blood are an indicator of the haemodialysis treatment as well as the psychological and emotional well-being. (Chan, *et al.* 2013)
- Elevated and stable levels of haemoglobin: benefits quality of life, tiredness symptomatology, and dyspnoea disappears (Kliger, *et al.*, 2012).
- Elevated level of urea = sadness, weakness and difficulty to concentrate; similar to depressive symptoms.
- The risk of mortality is higher when the level of phosphorus is higher. (DOOPS, 2013)



# INTRODUCTION



Pain produces:

- increase depression symptoms
- decreases quality of life
- it has an impact to the survival
- it has an impact to the comorbidity of patients who are on chronic HD treatment.

(Davison *et al.*, 2014) (Martin *et al.*, 2014).

# OBJECTIVES

- 1.-Describe the correlation between **anxiety**, **depression**, **emotional intelligence** and **quality of life** in patients undergoing chronic haemodialysis treatment.
- 2.-Explore the correlation between **anxiety** and **depression** with **clinical aspects** such as urea, haemoglobin, PCR, phosphate and potassium in blood.
- 3.-Analyse the impact of **pain** to **anxiety** and **depressive** levels.



# METHODOLOGY

- **Design:** An observational, single group cross-sectional study with correlational analyses.
  
- **Participants:** 138 patients / 4 haemodialysis units of Spain
  
- **Instruments:**
  - Hospital Anxiety and Depression Scale (HADS)
  - Kidney Disease Quality of Life-Short Form (KDQOL-SF)
  - Trait Meta Mood Scale (TMMS-24)
  - Visual Analogue Scale (VAS)

# RESULTS (1)

Means and typical deviations of anxiety according to the levels of emotional **attention** ( $p < 0.05$ )

Means and typical deviations of depression according to the level of emotional **repair** ( $p < 0.05$ ).

|         | Levels of emotional attention | M<br>DT              | F<br>p                | Shceffé<br>Post-hoc<br>p |
|---------|-------------------------------|----------------------|-----------------------|--------------------------|
| Anxiety | low emotional attention       | <b>5.41</b><br>3.787 | 4.146<br><b>0.018</b> | (p<0.005)                |
|         | adequate emotional attention  | <b>7.21</b><br>4.63  |                       |                          |
|         | excessive emotional attention | <b>8.31</b><br>5.44  |                       |                          |

|            | Levels of emotional repair | M<br>DT             | F<br>p               | Scheffé<br>Post-hoc<br>p              |
|------------|----------------------------|---------------------|----------------------|---------------------------------------|
| Depression | Low emotional repair       | <b>8.32</b><br>4.28 | 6.17<br><b>0.003</b> | <b>1-2: 0.02</b><br><b>1-3: 0.006</b> |
|            | Adequate emotional repair  | <b>6.23</b><br>4.01 |                      |                                       |
|            | Excellent emotional repair | <b>4.80</b><br>3.12 |                      |                                       |

# RESULTS (1)

Means and standard deviations of the different scales of renal quality of life according to the levels of emotional **attention** ( $p < 0.05$ ):

| Renal quality of life scales | Levels of emotional attention | M<br>DT        | F<br>p                | Post-hoc<br>Scheffé<br>p |
|------------------------------|-------------------------------|----------------|-----------------------|--------------------------|
| Renal disease effects        | low attention                 | 57.03<br>20.18 | 3.45<br><b>0.034</b>  | <b>1-3: 0.038</b>        |
|                              | adequate attention            | 52.42<br>21.04 |                       |                          |
|                              | excessive attention           | 41.99<br>22.06 |                       |                          |
| Cognitvie Function           | low attention                 | 18.12<br>21.30 | 3.668<br><b>0.028</b> | <b>1-2: 0.036</b>        |
|                              | adequate attention            | 27.87<br>19.81 |                       |                          |
|                              | excessive                     | 26.66<br>22.22 |                       |                          |

# RESULTS (1)

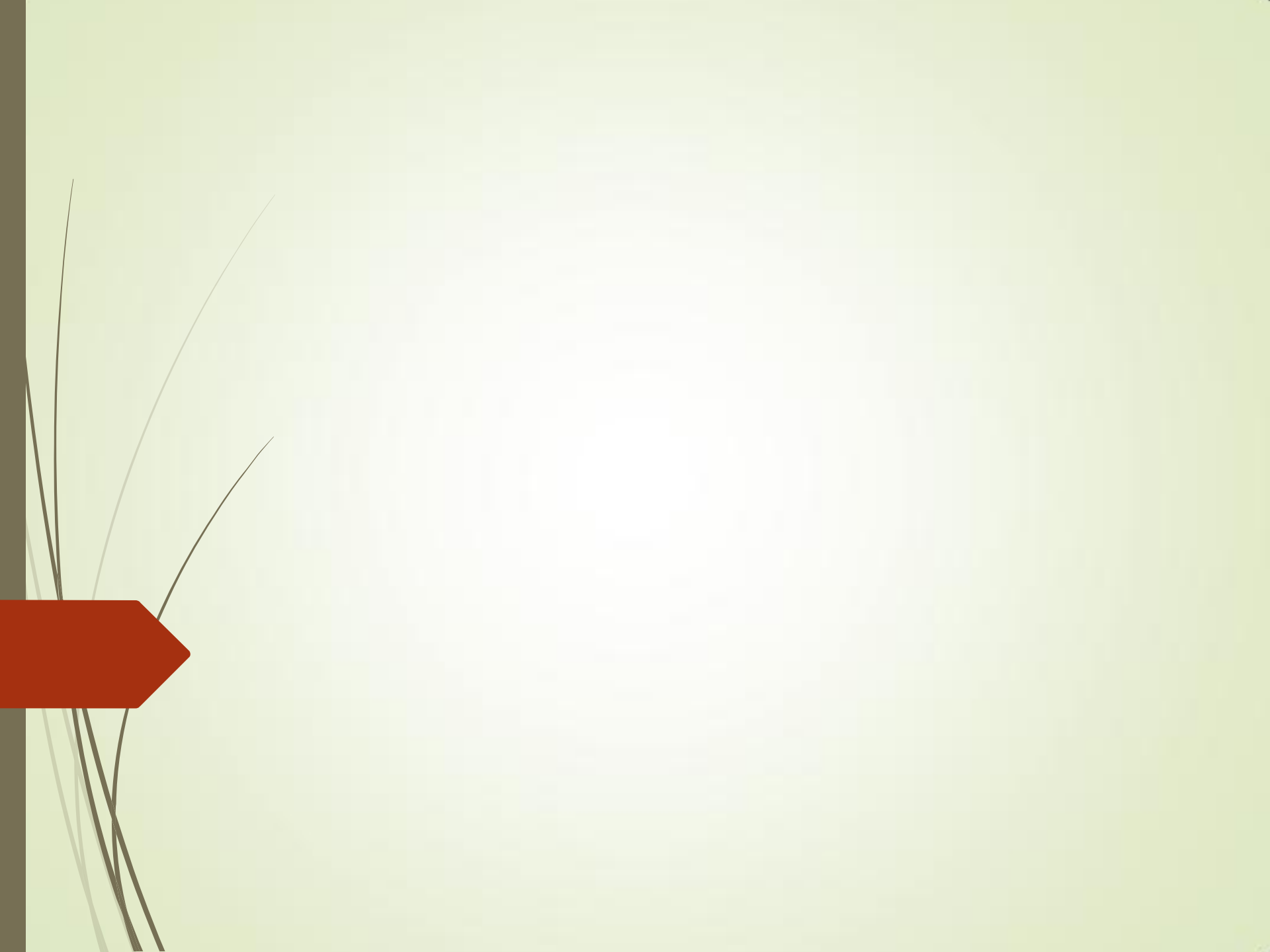
Means and standard deviations of the different scales of renal quality of life according to the levels of emotional clarity (p<0.05):

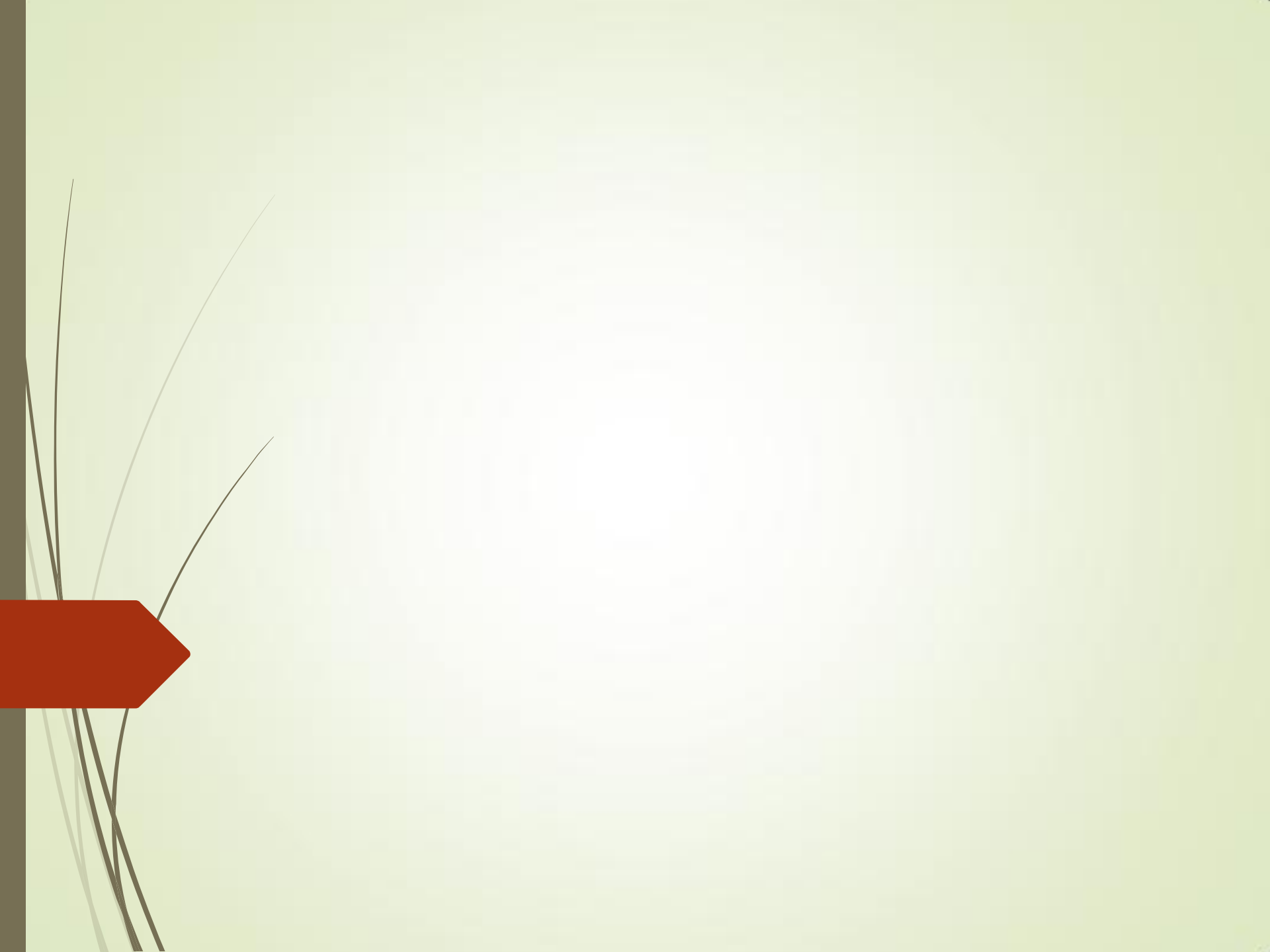
| Renal quality of life scales | Levels of emotional clarity | M<br>DT               | F<br>p                | Post-hoc<br>Scheffé<br>p |
|------------------------------|-----------------------------|-----------------------|-----------------------|--------------------------|
| <b>Sexual function</b>       | Low emotional clarity       | <b>66.38</b><br>35.63 | 3.348<br><b>0.038</b> | <b>1-2: 0.045</b>        |
|                              | adequate emotional clarity  | <b>48.31</b><br>35.28 |                       |                          |
|                              | excellent emotional clarity | <b>51.56</b><br>40.00 |                       |                          |
| <b>Patient satisfaction</b>  | low emotional clarity       | <b>77.40</b><br>19.83 | 3.055<br><b>0.050</b> | <b>1-3: 0.054</b>        |
|                              | Adequate emotional clarity  | <b>83.05</b><br>17.87 |                       |                          |
|                              | Excellent emotional clarity | <b>88.01</b><br>19.04 |                       |                          |

# RESULTS (1)

Means and standard deviations of the different scales of renal quality of life according to the levels of emotional **repair** ( $p < 0.05$ ):

| Renal quality of life scales        | Levels of emotional repair | M<br>DT        | F<br>p                | Post-hoc<br>Scheffé<br>p               |
|-------------------------------------|----------------------------|----------------|-----------------------|--|
| Deterioration of cognitive function | low emotional repair       | 23.65<br>22.20 | 5.453<br><b>0.005</b> | 1-3: <b>0.045</b><br>2-3: <b>0.005</b> |
|                                     | adequate emotional repair  | 26.49<br>20.66 |                       |  |
|                                     | excellent emotional repair | 9.66<br>13.76  |                       |  |





# RESULTS (3)

Mean, standard deviation and results of ANOVA of pain scores according to **anxiety** diagnosis

| Pain               | Means       | SD   | F    | p                |
|--------------------|-------------|------|------|------------------|
| Absence of anxiety | 2.94        | 2.91 | 8.06 | <b>&lt;0.001</b> |
| Doubtful anxiety   | 4.56        | 3.16 |      |                  |
| Clinical Anxiety   | <b>5.35</b> | 2.84 |      |                  |

Mean, standard deviation and results of ANOVA of pain scores according to **depressive** diagnosis

| Pain                  | Means       | SD   | F     | p                |
|-----------------------|-------------|------|-------|------------------|
| Absence of depression | 2.62        | 2.53 | 15.09 | <b>&lt;0.001</b> |
| Doubtful depression   | 4.93        | 3.23 |       |                  |
| Clinical depression   | <b>5.75</b> | 3.18 |       |                  |



# DISCUSSIONS & CONCLUSIONS

- ✓ It is globally known that a high number of patients who are on chronic HD treatment suffer from pain, anxiety, depression and a low quality of life (García-Llanta 2014)



# DISCUSSIONS & CONCLUSIONS

- Nursing care plan:

Holystic evaluation and treatment of patients:  
Physical, psychological and social: pre-HD,  
during HD and monitoring.

- Emotional Intelligence training  
program for the patients



# REFERENCES

- ▶ Tentori F, Mapes D. Health-Related Quality of Life and Depression among Participants in the DOPPS: *Seminars in Dialysis* 2010; Vol 23, No 1 (January–February) 14-16.
- ▶ Mapes DL, Lopes AA, Satayathum S, McCullough KP, Goodkin DA, Locatelli F, et al. Health-related quality of life as a predictor of mortality and hospitalization: the Dialysis Outcomes and Practice Patterns Study (DOPPS). *Kidney Int*, 2003; 64(1), 339-349.
- ▶ Perales-Montilla, C., García-León, A. i Reyes-del Paso, G. (2012). Predictores psicosociales en la calidad de vida en pacientes con insuficiència renal crònica en tratamiento en hemodiàlisis. *Nefrología*. 32 (5), 622-30.
- ▶ Kidney Disease Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney inter., Suppl.* 2013;3: 1–150
- ▶ Martins, A., Ramalho, N., Morin, E (2010). A comprehensive meta-analysis of the relationship between emotional intelligence and Health. *Personality and Individual Differences*, 49 (6), 554-564.

## REFERENCES

- Chan, R., Brooks, R., Erlich, J., Gallagher, M., Snelling, P., Chow, J., Suranyi, M. (2013). How do Clinical and psychological variables relate to quality of life in end-stage renal disease? Validating a proximal-distal model. *Quality of Life Research*. Issued August 2013.
- Klinger, A., Fishbane, S. i Finkelstein, F. (2012). Erythropoietic stimulating agents and quality of patient's life: individualizing anèmia treatment. *Clinical Journal of the American Society of Nephrology*. Vol.7(2), 354-357.
- Salovey, P., Mayer, J.D., Goldman, S., Turvey, C, i Palfai, T. (1995) Emotional attention, clarity and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. *Emotion, disclosure, and Health*. 125-154 in J. W. Pennebaker (Ed). Washington, D.C.: American Psychological Association.
- Martin, R., Puente, A., Marín, M., García, F., Callejas, R., Nuñez, JM. et al. (2014). Prevalencia del dolor en los pacientes en hemodiàlisis crònica, en el marco del "programa integral de atención al dolor asociado a la enfermedad renal terminal en unidades de diàlisis". XLIV congreso nacional de la Sociedad espanyola de nefrologia.



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# Thank you

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