QUALITY OF LIFE, EMOTIONAL STATES AND PAIN IN PATIENTS WITH CHRONIC HAEMODIALYSIS TREATMENT

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Introduction
Multifactorial aspects when haemodialysis is followed:
- Vascular access
- Transportation
- Hours and sessions of treatment
- Strict diet and líquid restrictions
- Diminution of physical, cognitive and social capacities
- Others.

Haemodialysis directly affects quality of life, not only physically, but also psychologically and socially to patients and family.
Birmelé, et al. (2012): QoL → morbidity and mortality risk

Malheimo, et al. (2012): HD → physical, psychological and social functioning

García-Llanta, et al. (2014): Anxiety and Depression → QoL physical and mental

Chilcot, et al. (2008): 20% - 30% patients en HD → depression
Objectives
GENERAL OBJECTIVE: To analyze the emotional aspects that are associated with quality of life in patients undergoing chronic hemodialysis

To describe the relationship between quality of life and emotional states (anxiety and depression)

To acknowledge the relationship between pain, anxiety and depression
Methodology
METHODOLOGY

Design: Quantitative, observational, descriptive, transversal, cross-sectional

Population:
- All haemodialysis patients registered in Girona health region.
- N=138
- 4 Haemodialysis centres

Instruments:
✓ HADS (anxiety and depression scale)
✓ KDQOL-SF (kidney disease quality of life- short form)
  • general and renal QoL
✓ VAS (visual analoge scale: Pain)
Introduction

Objectives

Methodology

Results

Discussion

Conclusions

Implications of practice

Haemodialysis centers

Aproval of 2 Ethical Comites

Data Collection

Data Analysis

Results interpretation
Results
PARTICIPANTS
CHARACTERISTICS

N = 138
Men = 64.5%
Age = 65.3 (SD = 16)

<table>
<thead>
<tr>
<th>Education</th>
<th>%</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>71.1</td>
<td>99</td>
</tr>
<tr>
<td>Secundary</td>
<td>18.1</td>
<td>25</td>
</tr>
<tr>
<td>University</td>
<td>5.1</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>5.1</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working situation</th>
<th>%</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working</td>
<td>3.6</td>
<td>5</td>
</tr>
<tr>
<td>Pensioners</td>
<td>85.5</td>
<td>118</td>
</tr>
<tr>
<td>Social income</td>
<td>2.9</td>
<td>4</td>
</tr>
<tr>
<td>Not working</td>
<td>0.7</td>
<td>1</td>
</tr>
<tr>
<td>Studying</td>
<td>0.7</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>6.5</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living situation</th>
<th>%</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living alone</td>
<td>13.0</td>
<td>18</td>
</tr>
<tr>
<td>Living with family</td>
<td>85.5</td>
<td>118</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income (monthly)</th>
<th>%</th>
<th>(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 645 €</td>
<td>60.1</td>
<td>83</td>
</tr>
<tr>
<td>≤ 645€</td>
<td>39.9</td>
<td>55</td>
</tr>
</tbody>
</table>
Objective: To describe the relationship between quality of life and emotional states (anxiety and depression).

In all cases, the lowest quality of life is shown to patients that have clinical anxiety group compared to the absence of anxiety group.
**Objective:** To describe the relationship between quality of life and emotional states (anxiety and depression)

<table>
<thead>
<tr>
<th>Comparison ANXIETY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic VS Borderline (p&lt;0.05)</td>
<td></td>
</tr>
<tr>
<td>Kidney disease-targeted scales</td>
<td>- Social support</td>
</tr>
<tr>
<td></td>
<td>- Work status</td>
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</tbody>
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Clinical anxiety group reports a poorer quality of life than borderline anxiety group.

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<tr>
<td>Kidney disease-targeted scales</td>
<td>- Symptoms</td>
</tr>
<tr>
<td></td>
<td>- Quality of social interaction</td>
</tr>
<tr>
<td></td>
<td>- Sleep</td>
</tr>
<tr>
<td></td>
<td>- Work status</td>
</tr>
<tr>
<td>36-item Health survey scales</td>
<td>- Emotional well-being</td>
</tr>
</tbody>
</table>

Borderline anxiety group reports poorer quality of life compared to absence of anxiety group.  
*EXCEPTION:* Work status
**Objective:** To describe the relationship between quality of life and emotional states (anxiety and depression)

<table>
<thead>
<tr>
<th>Comparison DEPRESSION</th>
<th>Clinic VS Absence (p&lt;0.05)</th>
</tr>
</thead>
</table>
| Kidney disease-targeted scales | - Symptoms  
- Effects of kidney disease  
- Burden of kidney disease  
- Cognitive function  
- Quality of social interaction  
- Sexual function  
- Sleep |
| 36-item Health survey scales | - Physical functioning  
- Pain  
- Emotional well-being  
- Emotional well-being  
- Social function  
- Energy/fatigue |

In all cases, clinic depression group reports a lower quality of life than the absence of depression group.
Objective: To describe the relationship between quality of life and emotional states (anxiety and depression).

<table>
<thead>
<tr>
<th>Comparison DEPRESSION</th>
<th>Clínic VS Borderline (p&lt;0.05)</th>
<th>Borderline VS Absence (p&lt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney disease - targeted scales</td>
<td>- Symptoms</td>
<td>- Burden of kidney disease</td>
</tr>
<tr>
<td></td>
<td>- Effects of kidney disease</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Cognitive function</td>
<td>- Pain</td>
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<td>- Energy/fatigue</td>
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</table>

Patients who suffer from clinical depression report a poorer quality of life than borderline depression.

Patients who suffer from borderline depression report poorer quality of life compared to absence.
Relationship between anxiety, depression and pain

**Levels of Anxiety and Depression**

- **Absence**
  - Anxiety: 2.9 (SD = 2.9)
  - Depression: 2.6 (SD = 2.5)

- **Borderline**
  - Anxiety: 4.6 (SD = 3.2)
  - Depression: 5 (SD = 3.2)

- **Clinic**
  - Anxiety: 5.4 (SD = 2.8)
  - Depression: 5.8 (SD = 3.2)
Correlations of the variables of study

- Anxiety
- Pain
- Depression
- Quality of Life

Positive correlation:
- Anxiety to Pain
- Anxiety to Depression
- Pain to Anxiety
- Pain to Depression
- Depression to Anxiety
- Depression to Pain

Negative correlation:
- Anxiety to Quality of Life
- Pain to Quality of Life
- Depression to Quality of Life

Positive and negative correlations indicate interrelations between the variables of study.
Discussion
Anxiety and depression are associated with poor quality of life.

Wang, et al. (2019): Negative correlation between depression and quality of life scales (KDQOL)

- Our results are consistent with other studies

Belayev, et al. (2015): Longitudinal data finds that depression was related to a reduction of quality of life (KDQOL)
Positive correlation between anxiety, depression and pain in HD patients

Davison et al. (2005)
Alvarez-Ude et al. (2001)
Kusztal et al. (2018)

Treatment focused on reducing anxiety and depression levels in order to reduce pain
Limitations

- Self-report measures
- Same geographic zone
- Design: causality relations/directions
- Clinical factors
Conclusions
CONCLUSIONS

- In general, high levels of quality of life are associated with low levels of anxiety and depression.
- There is a positive and significant association between pain levels and anxiety and depression scores.
Implications of practice
Further research
**IMPLICATIONS OF PRACTICE & FURTHER RESEARCH**

- **Nurse-led nephrology nursing practice program.** Including and initial and ongoing evaluation of the emotional needs, to assess and achieve a better quality of life and pain management.

- Expand the focus of healthcare, adding to clinical and technical aspects others such psychological and emotional.

- Experimental and longitudinal designs to analyse the effects of anxiety and depression on quality of life.

- Qualitative, multicentric and international studies.
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