

# ANHEDONIA IN DEEP ENDOMETRIOSIS PATIENTS WITH SEVERE CHRONIC PELVIC PAIN

Maria-Angeles Martínez-Zamora, Aida Mallorquí, Alessandra Fortuna, Meritxell Gracia, Lara Quintas, Francisco Carmona.  
Department of Gynecology. Hospital Clínic of Barcelona. Barcelona, Spain.

## Introduction and objective:

Anhedonia is traditionally defined as a diminished capacity to experience pleasure in response to rewarding stimuli. It has been historically considered a fundamental symptom in depressive disorders as well as a residual symptom associated with schizophrenia. Conceptually, anhedonia encompasses two distinctive aspects; physical anhedonia is referred to the blunted hedonic response to physical rewarding stimuli, and on the other hand, social anhedonia is associated to the incapacity to experience pleasure derived from social interactions. Undoubtedly, both aspects of anhedonia have an impact in the overall quality of life of the affected individuals.

Endometriosis is a chronic inflammatory disabling disease. Approximately, 80% of the patients with endometriosis suffer from pelvic and abdominal pain along with other disabling symptoms that compromised reproductive health, mental health and quality of life in a significant way. In the current study we want to contribute to broaden the knowledge of chronic pain in endometriosis by exploring the prevalence of anhedonia in deep endometriosis (DE) patients with or without severe chronic pelvic pain (CPP). which is the most disabling form of the disease.

The objective of our study was to estimate the prevalence of anhedonia in a population of women affected by DE and the influence of severe CPP.

## Materials and methods:

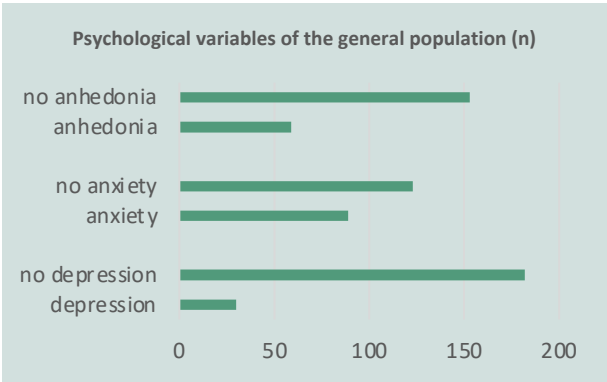
Anhedonia was measured by means of the Snaith-Hamilton scale (SHAPS) which is the gold standard measure of anhedonia. The SHAPS consists of 14 items tapping the pleasure experienced from a variety of natural rewards (e.g. being with family, a warm bath, smiling faces, a beautiful landscape, receiving praise), rated on a Likert-type scale (1=strongly agree, 4= strongly disagree). Using this scoring rubric, SHAPS total scores can range from 14 to 56, with higher scores indicating higher levels of anhedonia. Patients disagreeing with three or more out of the 14 items exceeded the Snaith’s suggested cut-off for clinical anhedonia. Severe CPP was considered when patients scored 7 or higher in a numerical rating scale from 0 to 10. Inclusion criteria were premenopausal women older than 18 years and with surgical and/or sonographic diagnosis of DE. Exclusion criteria were substance abuse disorder and patients with neurological and neurodegenerative diseases.

## Results:

TABLE 1-BASELINE CLINICAL AND DEMOGRAPHIC DATA OF THE STUDY GROUP (mean +/-SD or n(%))	DE patients (n = 212)
Age at diagnosis (years)	39,72 ± 7.05
Infertility	111 (52.4)
Previous endometriosis surgery	114 (53.8)
Current hormonal treatment	132 (62.3)
Symptoms	
Dysmenorrhea (NRS ≥7)	158 (74.5)
Dysmenorrhea, NRS score	7,29 ±3,18
Chronic pelvic pain ( NRS ≥7)	159 (75)
Chronic pelvic pain, NRS score	4,96 ± 3,33
Dyspareunia ( NRS ≥7)	97 (45.7)
Dyspareunia, NRS score	6,09 ± 3,15
Hypermenorrhea, NRS score	5,58 ± 3,647
Dyschezia, NRS score	4,79 ± 3,54
Dysuria, NRS score	2.3 ± 3.09
Perioviulatory pain, NRS score	6.06 ± 3.15
Spotting	2.76 ± 3.38
Fatigue	7.20 ± 2.90

Results are expressed as mean+/-standard deviation+/-SD or %.

A total of 212 DE patients were recruited, 159 (75%) of them with severe CPP (Table 1). The mean score+/-SD of the SHAPS was 24.2+/-8.1.



Fifty-nine patients (27.8%) showed anhedonic behavior. Among patients with severe CPP, 31.5% (n=50) had a low hedonic tone. Only 9 patients (17%) of DE patients with CPP<7 showed low hedonic tone (p=0.05). SHAPS means scores were 21.26+/-7.45 among patients without severe CPP and 25.18+/-8.04 among patients with severe CPP (p=0.002).

## Conclusion:

The prevalence of anhedonia in patients with DE is high and is significantly higher among patients with severe CPP. According to the findings presented, we believe that a more precise psychological characterization of anhedonia would allow to develop in the near future more specific clinical interventions to target these symptoms or cluster prevalence