Disease Burden Associated with Prominent Anhedonia in Patients with Major Depressive Disorder from Adelphi Depression Disease Specific Programme™

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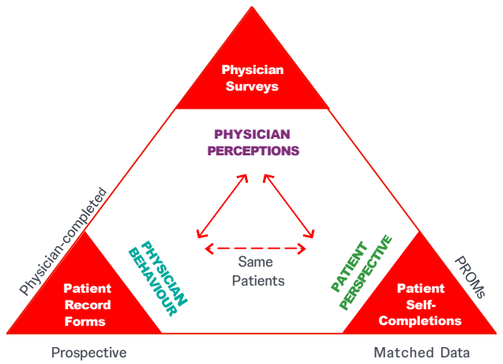
Background

- Major depressive disorder (MDD) is ranked as the third highest burden of disease worldwide [1]. Anhedonia characterised by the diminished interest and/or pleasure in activities is a key symptom of (MDD) [2].
- However, there is a lack of understanding of the symptom burden, healthcare resource use (HCRU), caregiver burden and humanistic impact in patients with MDD with prominent anhedonia.
- This study aims to investigate the burden of disease in patients with MDD with prominent anhedonia compared with those with MDD with low or no anhedonia using real-world evidence.

Methods

- Data were drawn from the Adelphi Real World Depression Disease Specific Programme™ **(Figure 1)**, a cross-sectional survey, with elements of retrospective data collection, of physicians and their patients with MDD conducted in the United States from January–July 2017. The DSP methodology was previously published[3,4].
- Physicians reported patient's demographics, symptomology (including presence of anhedonia), HCRU, caregiver status and work productivity and activity impairment (WPAI.
- Physicians also rated patients' severity of anhedonia symptom, defined as 'diminished interest/pleasure in activities' from 1–5. When patients were scored as ≥3, patient was categorised to have 'prominent anhedonia '(MDD-ANH). When patient's severity of anhedonia was scored as 1-2, or the patient did not exhibit anhedonia as a symptom, this was associated with no-or-low anhedonia and the patients were classified as 'other-MDD'.
- Multivariable analysis was conducted using inverse probability-weight regression adjustment (IPWRA) to explore the effects of the presence of prominent anhedonia, adjusted for time since diagnosis, age, gender, BMI at data collection and ethnicity. Odds ratio (OR), incidence rate ratios (IRR) and p-values are reported. Weighted descriptive analysis was also conducted using inverse probability weight and appropriate regression models used for comparisons.

Figure 1: DSP Methodology



Results

Survey population

- The study included 257 MDD-ANH and 1192 other-MDD patients. Mean (standard deviation) age was 49.5 (15.4) and 48.6 (17.0) years **(Table 1)**.
- Covariates that were controlled for in the IPW included: time from initial diagnosis to data collection, age, sex, BMI and ethnicity.

Table 1: Demographic and Clinical Characteristics of Patients with MDD

	Unweighted sample		Weighted sample	
	MDD-ANH	Other-MDD	MDD-ANH	Other-MDD
	n=257	n=1192	n=146	n=706
Time from initial diagnosis to data collection (days; mean)	973.1	1020.2	907.0	1032.9
Age (years; mean)	49.5	48.6	46.5	47.1
Male, n (%)	36.6	34.4	39.7	37.1
BMI, mean	27.8	26.8	26.5	26.6
Ethnicity (white, %)	79.0	77.9	76.0	76.1
Physician perceived severity of MDD at data collection, n (%)				
Mild (1)	3 (1.2)	177 (14.9)	3 (2.1)	101 (14.3)
Mild/Moderate (2)	28 (10.9)	401 (33.6)	14 (9.7)	256 (36.3)
Moderate (3)	115 (44.8)	457 (38.3)	70 (48.2)	269 (38.1)
Moderate/Severe (4)	91 (35.4)	147 (12.3)	50 (34.0)	74 (10.5)
Severe (5)	20 (7.8)	10 (0.8)	9 (6.1)	6 (0.9)
Charlson Comorbidity Index, (mean)	0.6	0.2	0.6	0.2

Symptom Burden

- MDD-ANH had higher prevalence of depressive mood (82.2% vs 59.2%; OR= =3.17, p<0.001), interrupted sleep (44.9% vs 26.4%; OR=2.27, p<0.001), fear of social situations (33.3% vs 16.0%; OR=2.61, p<0.001), sexual dysfunction (17.4% vs 4.6%; OR=4.42 p<0.001) and weight gain (21.2% vs 13.6%; OR=1.71, p=0.018). **(Figure 2).**

HCRU

- MDD-ANH patients had a higher use of services (hospitalizations and ER); however, these differences were not statistically significant. The number of hospitalizations in the last 6 months for the groups were: MDD-ANH=11 per 100 patients vs Other-MDD=5 per 100 patients (IRR=2.45).
- Of patients who experienced a hospitalization in the last 6 months, MDD-ANH were more likely to visit ER MDD-ANH=8 per 100 patients vs Other-MDD=3 per 100 patients (IRR=2.57; **Figure 3).**

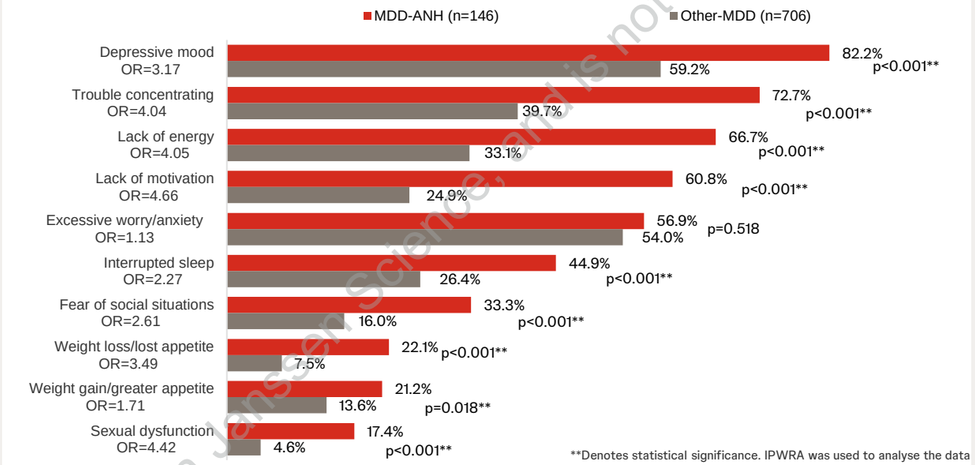
Caregiver Burden

- Of those that had a caregiver, MDD-ANH patients were more likely to have a caregiver responsible for their daily needs (9.1% vs 4.4%; p=0.005)

Work and Productivity

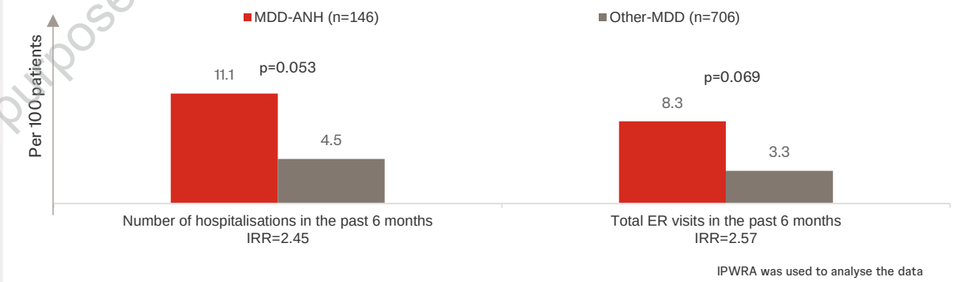
- MDD-ANH compared to other-MDD had significantly higher activity impairment (45.9% vs 28.4%), overall work impairment (32.4%vs 20.2%), presenteeism (28.9% vs 19.3%) and absenteeism (7.2% vs 1.7%). (Figure 4).

Figure 2: Symptom Burden between MDD-ANH and other-MDD Patients



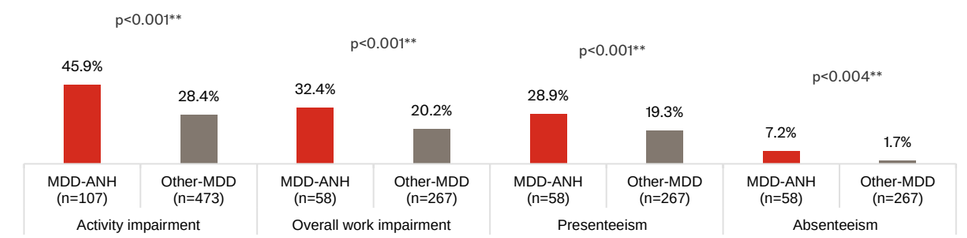
**Denotes statistical significance. IPWRA was used to analyse the data

Figure 3: Healthcare Resource Utilization



IPWRA was used to analyse the data

Figure 4: Work Productivity and Activity impairment



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[Poster 147]

Key takeaway

This study provides novel insight into the burden associated with prominent anhedonia among adults with MDD in the US.

Conclusions

Patients with MDD with prominent anhedonia were associated with greater disease burden suggested by higher rate of symptoms, increased work-related impairment, greater reliance on caregivers and greater healthcare resource utilization.

Study results highlight the need for targeted treatments to help patients with MDD with prominent anhedonia attain improved clinical and humanistic outcomes and reduce loss of productivity and healthcare resource utilization.

Acknowledgments

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Disclosures

TD, ND, and HK are employees of Janssen Scientific Affairs, LLC, and stockholders of Johnson & Johnson.
Jason Shepherd, Nikisha Grant, Ashley Mortimer, Sophie Kirkman, Chloe Middleton-Dalby are employees of Adelphi Real World.
Janssen scientific affairs contracted Adelphi Real World to execute the research.

The analysis used data from the Adelphi Real World Depression and anxiety XI DSP. The DSP is a wholly owned Adelphi Real World product. Janssen is one of multiple subscribers to the DSP

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