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Background

- Adherence to a gluten-free diet (GFD) leads to **disease improvement or remission** in gluten-associated disorders (GAD)
- Irritable bowel syndrome (IBS)-like symptoms are **common in GAD** and may account for up to 20% of non-responsive celiac disease (NRCD)
- Patients with GAD and overlap IBS have not been well-characterized

Objective

- To characterize patients with **GAD with overlap IBS** and **explore the role of non-adherence** in this group

Methods

- **Design:** cross-sectional
- **Study Population:** E-cohort of subjects with self-reported GAD from the UCLA Celiac Collective, 2022
- **Primary Outcome:** Presence of IBS (Rome IV)
- **Assessment Tools:**
 1. IBS Symptom Severity Scale (IBS-SSS)
 2. Celiac Dietary Adherence Test (CDAT)
 3. Celiac Symptom Index (CSI)
 4. Health Care Climate Questionnaire (HCCQ) for perceived autonomy support and relationship with healthcare provider
 5. Patient Reported Outcomes Measurement Information System (PROMIS) for anxiety, depression, fatigue, pain, social satisfaction
- **Statistical Analysis:** Chi-square, Fisher’s exact and Wilcoxon rank-sum tests

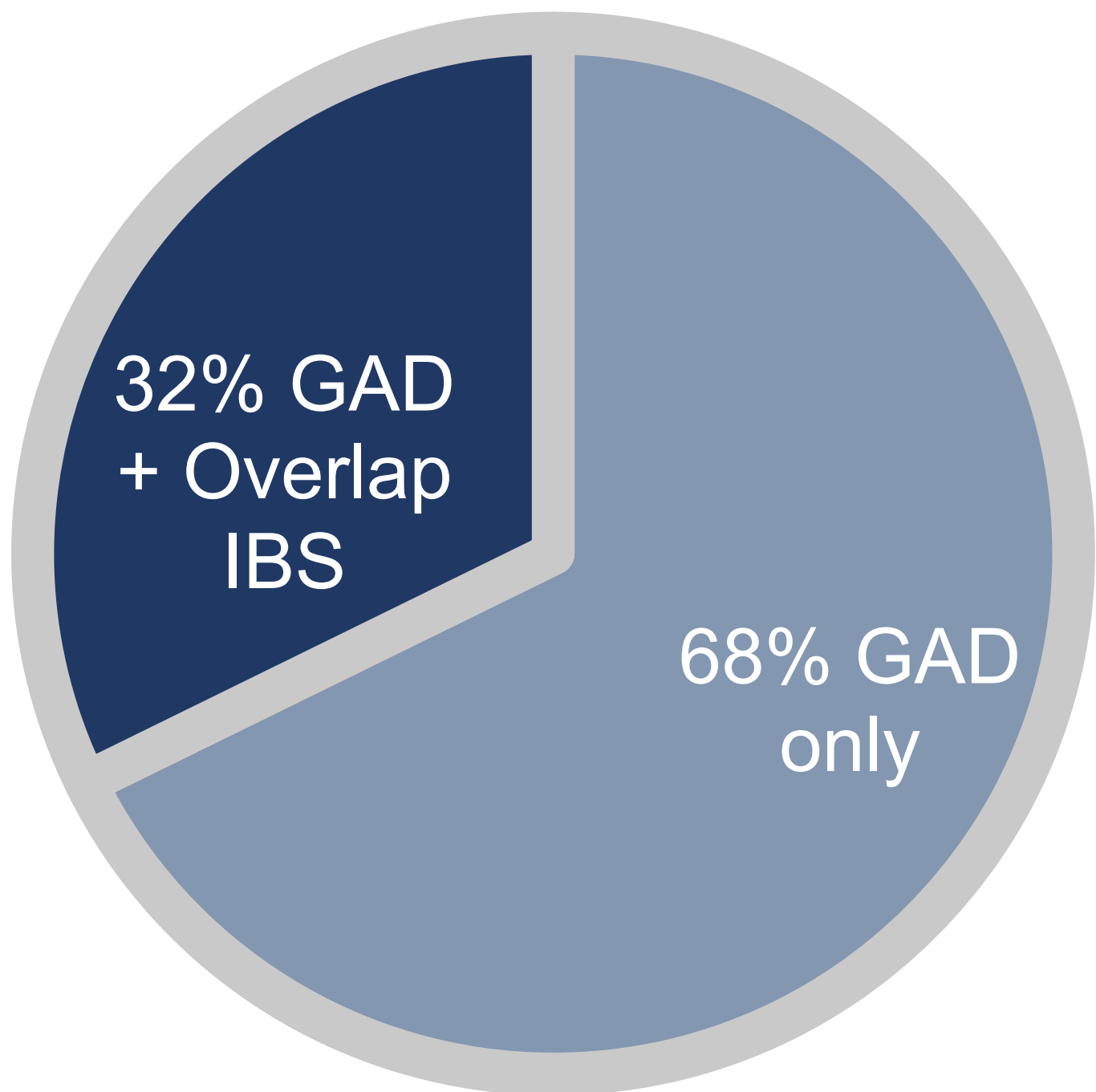


Figure 1. Overlap IBS Frequency in GAD

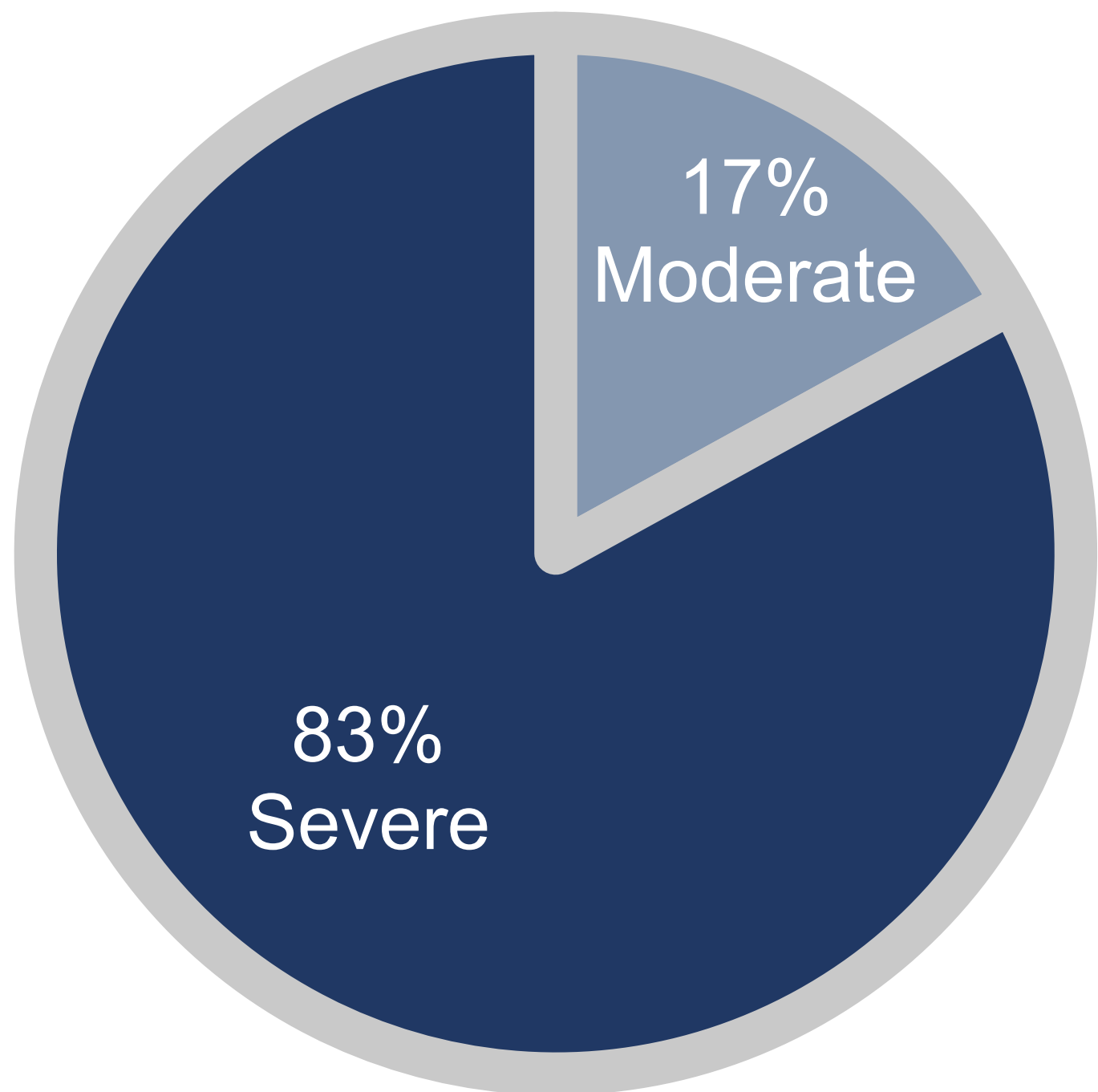


Figure 2. IBS Severity in GAD + Overlap IBS

	GAD	GAD + Overlap IBS
Demographics		
Female gender ¹	90.5%	90.0%
Age	57.0 (51.0-63.0)	44.0 (36.0-51.2)
GAD Diagnosis¹		
Celiac Disease	81.0%	60.0%
Dermatitis Herpetiformis +/- Celiac Disease	19.0%	30.0%
Non-Celiac Gluten Sensitivity/Wheat Sensitivity	0.0%	10.0%
GFD Adherence (CDAT)		
	12.5 (10.8-15.2)	13.0 (9.0-14.0)
Celiac Disease Activity (CSI)		
	35.5 (31.8-37.2)	39.0 (35.0-43.0)
Mental Health (PROMIS)		
Anxiety	6.0 (5.0-9.0)	9.0 (8.0-11.0)
Depression	5.0 (5.0-6.5)	8.0 (5.0-9.0)
Relationship with Healthcare Provider (HCCQ)		
	19.0 (10.5-36.5)*	39.0 (28.0-42.0)*

Table 1. Measures associated with presence of IBS. Data represent score medians (Q1-Q3) unless noted otherwise

¹Reported by frequency ²p-value not measured as categories not mutually exclusive

* *p* < 0.05

Table 1. GAD only vs GAD with Overlap IBS Patients

Results

Overlap IBS (Figures 1 and 2)

- A **third (10 out of 31)** of GAD patients had overlap IBS
- Majority reported **severe IBS symptoms (83%)**

GAD only vs. GAD with Overlap IBS (Table 1)

- **Similar GFD adherence** between GAD only and GAD with overlap IBS groups
- Trend of **worse anxiety and depression** for patients with **GAD + overlap IBS**
- **Better relationship with/autonomy support from healthcare provider** for patients with **GAD + overlap IBS**

Conclusions

- GAD patients with **overlap IBS** symptoms have **more psychological distress** than the general population
- Similar adherence scores, regardless of the presence of IBS, suggests that **overlap IBS is not the result of advertent nor inadvertent gluten exposure**
- **Providers should continue supporting GAD with overlap IBS patients closely**, as seen by stronger patient-physician relationships seen in this group, and treat their IBS similarly to non-GAD IBS management

References

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4. Leffler DA, et al. Etiologies and Predictors of Diagnosis in Nonresponse Celiac Disease. *Clin Gastroenterol Hepatol*. 2007;5:445-450.