

## Summary

- Individuals' patterns of migraine-related symptoms vary across the phases of migraine

## Background

- The cycle of migraine is often represented through 4 phases; pre-headache (includes the prodrome/premonitory phase and aura), headache, post-headache, and interictal (between attacks)
- Previous research has examined the range of symptoms that occur within each migraine phase, but little is known about the broader cooccurrence of symptoms across the migraine phases from the patient perspective
- Using qualitative interview data from the Migraine Clinical Outcome Assessment System (MiCOAS) project, we explore patient-specific patterns for 3 symptom classes (cardinal, non-cardinal, psychological/emotional)

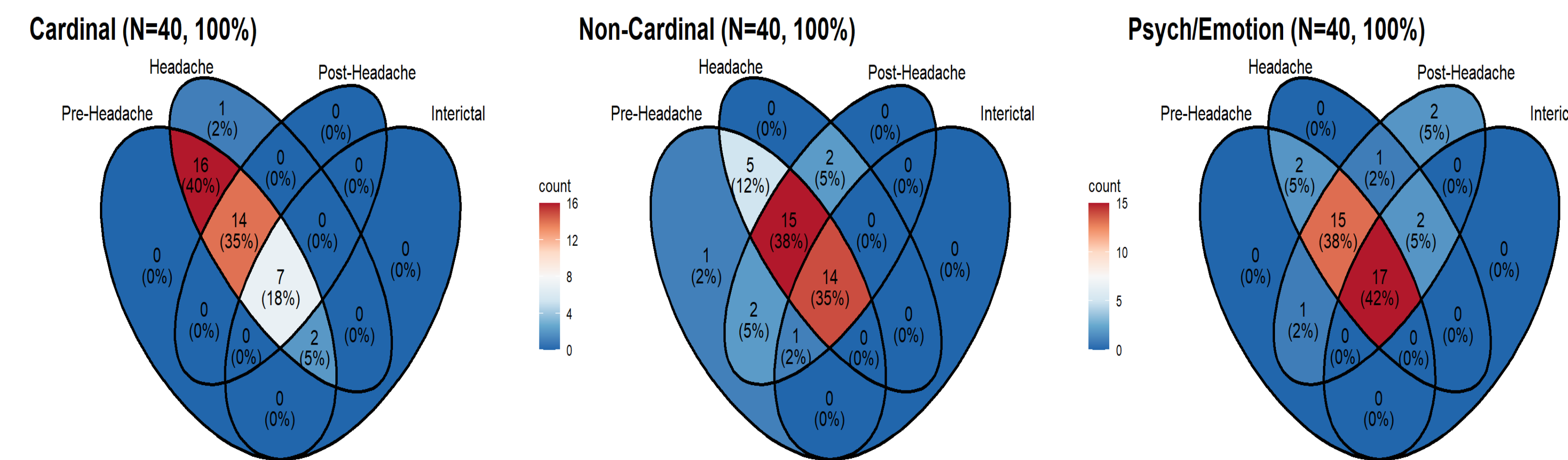
## Methods

- Data came from N=40 individuals with self-reported, medically diagnosed migraine
- Interviews explicitly probed symptoms by migraine and were transcribed/coded using content and thematic analysis
- A total of 60 symptoms were identified and reduced into 3 symptom classes:
  - Cardinal (core symptoms associated with ICHD-3 criteria for migraine)
  - Non-Cardinal (other non-migraine defining symptoms)
  - Psychological/Emotional (symptoms related to mood and emotions)
- Patterns of symptom class occurrence (yes = 1+ symptom reported within the respective class; no = 0 symptoms reported) were calculated across migraine phases (n, %) and depicted using Venn diagrams

## Results

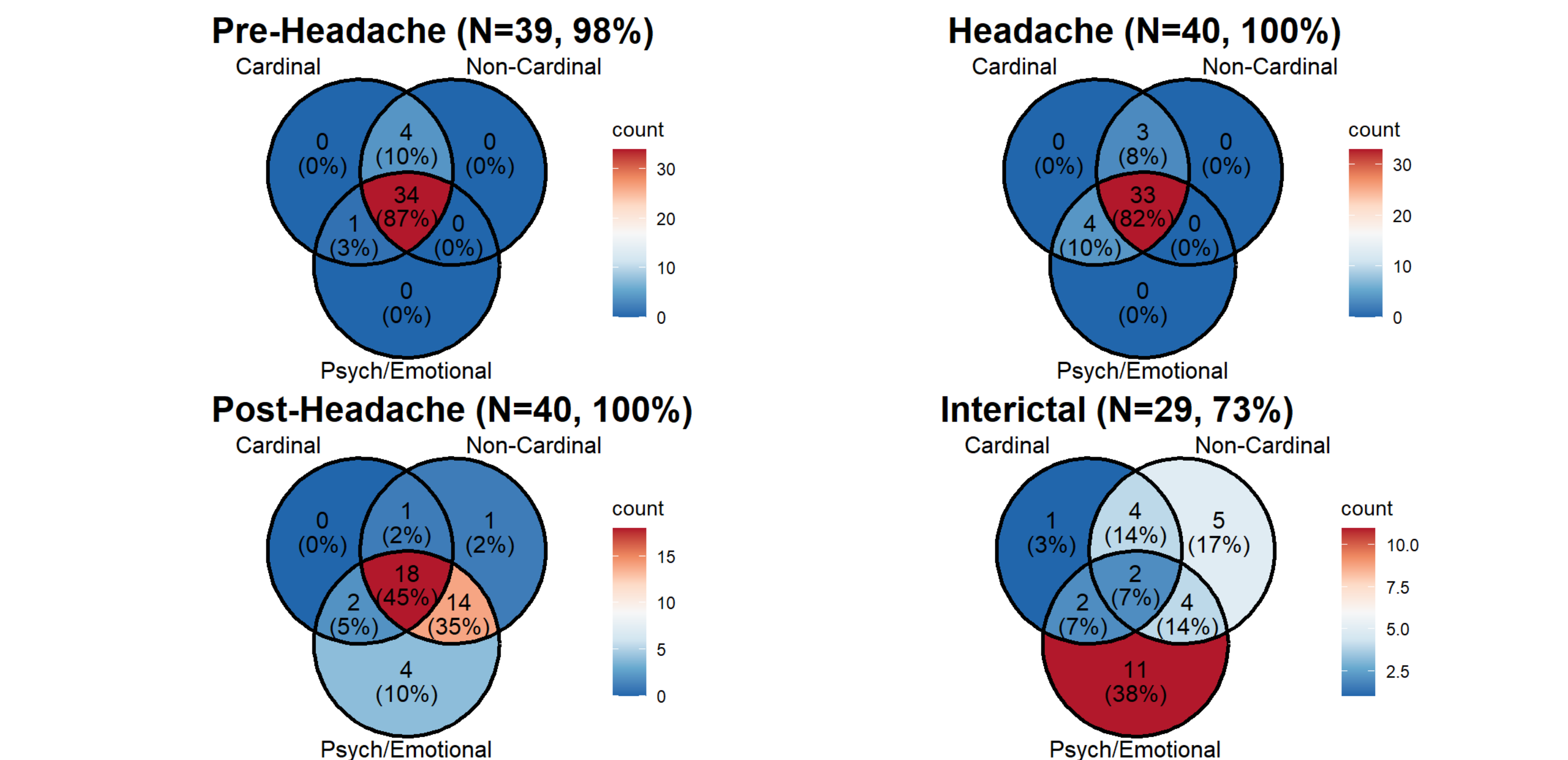
- The N=40 participants were equally divided between chronic and episodic migraine (n=20, 50% each), 77.5% (n=31) were female, and 67.5% (n=27) were white with an average age of 44
- Participants often reported cardinal symptoms in both the pre-headache and headache phases exclusively (n=16, 40%) or in the pre-headache, headache, and post-headache phases (n=14, 35%; Figure 1)
- Non-cardinal and psychological/emotional symptoms were typically reported in pre-headache, headache, and post-headache phases together (n=15, 37.5% for both) or in all 4 phases (non-cardinal: n=14, 35%; psychological/emotional: n=17, 42.5%; Figure 1)

Figure 1. Venn diagram depicting patterns of symptom endorsement across phases



- Figure 2 shows that within each of the migraine phases, participants usually reported at least 1 symptom (pre-headache: n=39, 97.5%; headache: n=40, 100%; post-headache: n=40, 100%; interictal: n=29, 72.5%), but the cooccurrence of symptom classes differed
- During pre-headache and headache, most patients reported symptoms across all 3 classes (pre-headache: 34/39, 87.2% of patients with 1+ symptom; headache: 33/40, 82.5%)
- In post-headache, participants frequently reported all 3 symptom classes (18/40; 45%) or having only non-cardinal and psychological/emotional symptoms (14/40; 35%)

Figure 2. Venn diagram depicting cooccurrence of symptoms by migraine phase



- During the interictal phase, participants often reported only psychological/emotional symptoms (11/29, 37.9%), only non-cardinal symptoms (5/29, 17.2%), or both psychological/emotional and non-cardinal symptoms (4/29, 13.8%)

## Conclusions

- Participants tended to report cardinal symptoms across the pre-headache, headache, and post-headache phases
- A unique discovery from this work was the frequent reporting of non-cardinal and psychological/emotional symptoms
- This work provides valuable, patient-centered insights that should be integrated into the development of patient-reported outcome measures

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