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Objective

- The 2017 MAST study was conducted to understand migraine symptoms, current treatment patterns and the assessment of treatment unmet needs.
- The objective of this poster is to describe MAST study methods and provide initial data on gender differences in treatment patterns and areas of unmet need.

Methods

- Respondents ≥18 years were recruited to the MAST study from a nationwide online research panel, using stratified random sampling.
- Individuals meeting modified ICHD-3-beta criteria for migraine were identified using a validated screener.
- Respondents who averaged ≥1 headache day per month over the previous 3 months were included.
- To assess unmet acute treatment needs we identified 5 domains of interest: rapid headache onset, inadequate pain relief, pain recurrence, sleep-related factors and nausea-related factors. We generated a set of 13-items addressing these domains and assessed respondents' 3-month recall of these items addressing attack characteristics and history of treatment response. Response options ranged from 1 (never) to 5 (all/nearly all the time). For medication related items, an additional response option "does not apply" was included.
- Frequency data are provided along with chi-square contrasts ($P < .05$) comparing men with women.

Results

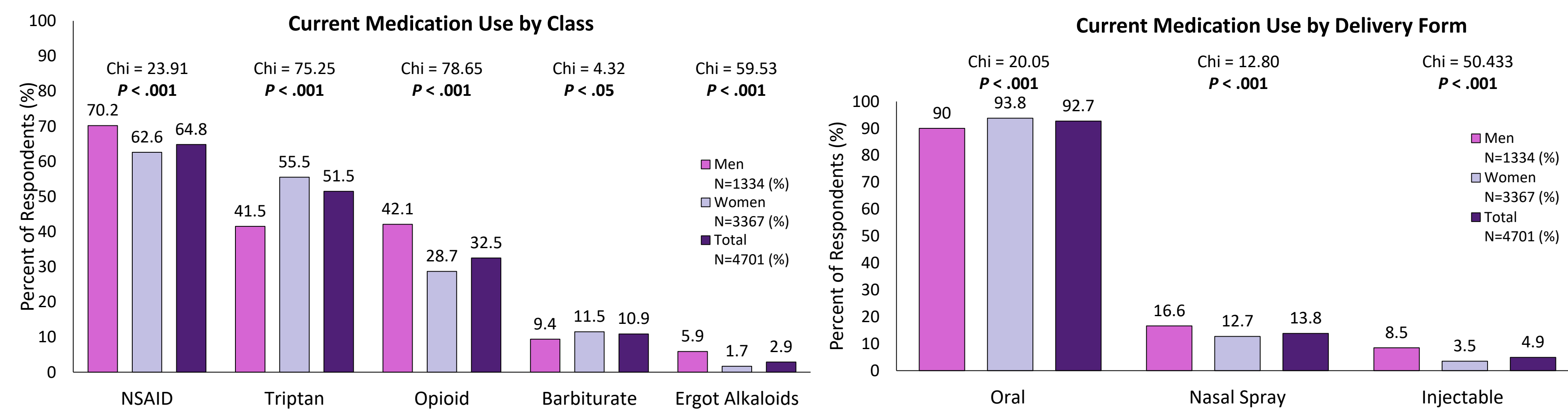
- 117,150 individuals responded to an email survey, 15,133 met inclusion criteria for migraine and headache frequency. Mean age was 43.1, 73.0% women, 81.0% white, and 70.8% employed.
- Compared to men, women were more likely to report headache at awakening (44.1% vs 34.0%), not being pain free at 2 hours post-acute treatment (49.6% vs 45.1%), and experiencing recurrence within 24 hours of initial relief (40.8% vs 35.9%, Fig 1, $P < .01$ for all).
- Among those reporting use of migraine prescription medication (n=4701), women were more likely than men to use triptans, barbiturates, and oral medications, and men were more likely than women to use ergots, NSAIDs, opioids (Fig 2, $P < .05$), and nasal and injectable medications (Fig 2, $P < .001$).
- Pain relief (~60%) was comparable between genders. Compared to women, men were more likely to report headache reaching peak intensity in <30 minutes, experiencing nausea with oral medications (17.1% vs 13.4%), and delaying treatment due to concerns about nausea (26.0% vs 23.0%, $P < .05$ for all).

Fig 1. Unmet treatment needs by gender (percent reporting half the time or more frequently in past 3 months)

	Men N=1334 (%)	Women N=3367 (%)	Total N=4701 (%)	Chi	P
How often did your severe headaches...					
Come on very rapidly	56.3	53.4	54.2	3.16	NS
Reach peak intensity in <30 minutes	54.3	50.3	51.5	6.23	<.05
Awaken you from sleep	31.0	31.5	31.4	0.15	NS
Present at normal time of awakening	34.0	44.1	41.2	40.82	<.001
How often did...					
You (not) become pain-free within 2 hours of taking medication	45.1 ^a	49.6 ^a	48.3 ^a	7.32	<.01
You obtain satisfactory pain relief	63.2	60.8	61.5	2.29	NS
Pain return within 24 hours of initial relief	35.9	40.8	39.4	9.31	<.01
Nausea make it difficult/impossible to take oral medication	21.0	18.6	19.2	3.52	NS
Taking oral medication cause nausea	17.1	13.4	14.5	10.16	<.01
Taking oral medication worsen nausea	19.5	13.3	15.1	27.43	<.001
You find oral medication less effective when taken with nausea	22.3	18.8	19.8	6.56	<.05
You delay/avoid Rx due to concerns about side effects	26.0	23.0	23.8	4.96	<.05
Your medication not help at all	21.0	18.1	18.9	5.31	<.05

^a% reporting never, rarely, < half the time in past 3 mos

Fig 2. Medication usage patterns by gender (percent reporting current use)



Conclusions

- Oral medications and triptans are widely used by men and women, but men were more likely to use non-triptan (NSAIDs, ergots, opioids) classes and nasal and injectable form of medications for migraine.
- A higher percentage of men than women reported rapid headache onset, medication-induced nausea, medication-worsened nausea, and nausea-influenced oral medication usage and effectiveness. Similarly, a higher percentage of women reported morning attacks, and being more likely to have attacks recur within 24 hours. Both men and women reported not becoming pain free within 2 hours as an unmet need.
- Nearly 1 in 5 individuals reported that medication was not effective. Medication and form usage patterns varied by gender, as did the pattern of unmet treatment needs. Additional analyses will identify the predictors of these patterns and the interaction between medication use patterns and outcomes.