

Migraine Prevention Patterns in a Community Sample: Results from the American Migraine Prevalence and Prevention (AMPP) Study

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INTRODUCTION

The prevalence of migraine in the U.S., as well as patterns of acute treatment, are well understood.^{1,2} However, less is known about the use of migraine preventive treatments versus standards of care.

Expert consensus guidelines recommend that preventive treatment be “offered” for patients with 6+ migraine days per month; 4+ migraine days with at least some impairment; or 3+ migraine days with severe impairment or required bed rest. Preventive treatment should be “considered” for patients with 4-5 migraine days per month with normal functioning; 3 migraine days with some impairment or 2 migraine days with some or severe impairment.

Using these criteria, a recent population-based study reported 26% of migraine cases should be “offered” preventive treatment and an additional 13% should “consider” preventive treatment.³

This study focused on the patterns of preventive treatment among migraine sufferers in the U.S. population and examined the need for prevention among those who have never used it.

METHODS

In 2004, a validated self-administered headache questionnaire was mailed to a representative sample of U.S. households.

Each household member with severe headache was asked to provide data on headache symptoms and features, headache frequency, acute and preventive medication use, use of coincident prevention (seizure, blood pressure, depression medications), headache related impairment (work/function normally, impaired to some degree, severely impaired, bed rest required) and disability (MIDAS).⁴

A sample of 120,000 households (with a total of N=257,339 individuals age 12+) were selected from the NFO/TNS nationwide panel. This household panel is constructed to be representative of the U.S. population on key demographics (age and gender of household head, household income and size, census region, and population density).

Migraine cases were identified using ICDH-2 symptom criteria for migraine with and without aura.⁵ Cases reporting at least one severe headache in the past year were included in the analyses and cases with daily (28+ per month) headaches were excluded.

MIDAS Grade was calculated by summing 5 items that assess number of days in the last 3 months where participation/productivity in work, school, or home activities were impacted due to headache. The distribution of findings for males versus females were compared using chi-square analyses.

RESULTS

A total of 77,879 households (65% response) returned questionnaires. Table 1 provides total sample demographics and response rates.

A total of N=30,721 headache sufferers age 12+ were identified (18.9% of the sample).

There were N=18,968 individuals who met ICDH-2 criteria for migraine yielding a one year period prevalence of 11.7% overall. Prevalence among females was 17.1% and among males 5.6%.

Among migraine cases, past 3-month headache frequency averaged 8.3 overall (males: 8.0, females: 8.4). Twenty-six percent of migraineurs experienced 10+ headache days in the past 3 months, 45% experienced 5+ headache days in the past 3 months.

Table 1. Sample Characteristics and Response Rates

	Sampled Individuals (N)	% of Sample	Responding Individuals (N)	Response Rate %
Total	257,339	100%	162,576	63%
Gender				
Males	124,665	48%	77,292	62%
Females	132,674	52%	85,284	64%
Age				
12-17 yrs	23,933	9.3%	13,821	58%
18-29 yrs	45,238	17.6%	22,659	50%
30-39 yrs	42,947	16.7%	22,468	52%
40-49 yrs	47,242	18.4%	28,994	61%
50-59 yrs	41,870	16.3%	29,479	70%
60+ yrs	56,109	21.8%	45,155	80%
Total Headache Cases			30,721	
Total Migraine Cases			18,968	

Figure 1. Impairment: How are you usually affected by your severe headaches?

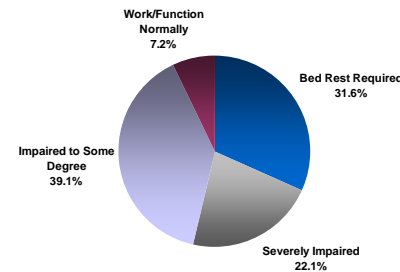


Figure 2. Disability: MIDAS Grade Summary. (Mean Score for Total: 9.3, Males: 7.9, Females: 9.8)

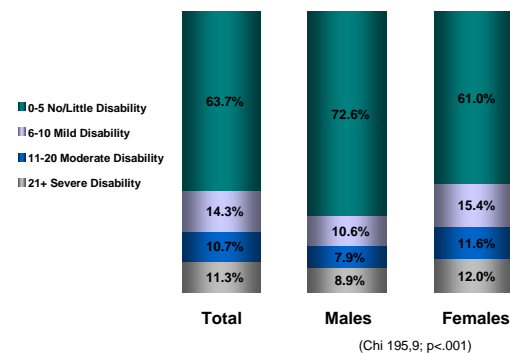


Figure 3. Acute Medication Usage Patterns

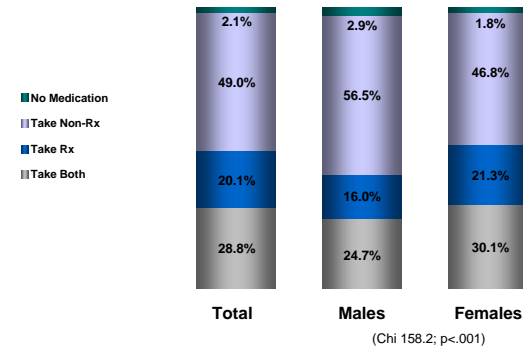


Figure 4. Current Preventive Medication Use

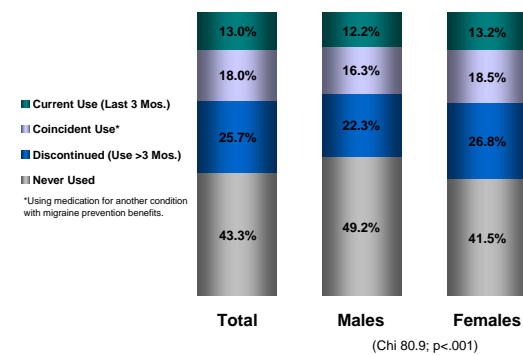


Figure 5. Preventive Medication Use Among Those Who Should be Offered Prevention, Consider Prevention, and Both Combined.

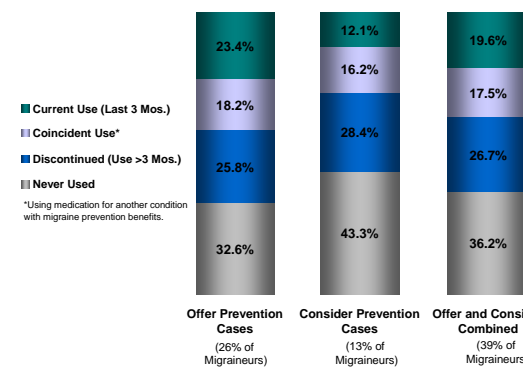
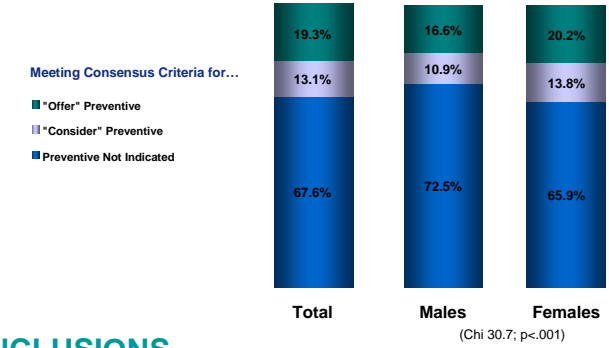


Figure 6. Preventive Medication Need Among Those Who Have Never Used Prevention



CONCLUSIONS

- ◆ This study replicated migraine prevalence findings from prior studies.
- ◆ There is considerable disease-related impairment and disability among migraine sufferers.
- ◆ Nearly all (97.9%) migraine cases are using acute medication to treat headache and nearly half (48.9%) are using an acute Rx treatment.
- ◆ But only 13.0% of migraineurs are currently using migraine specific preventive treatment while an additional 25.7% have discontinued preventive treatment. Males are more likely (p<.001) to have never used preventive medication.
- ◆ Among the 26% of migraine cases in the “offer” group, where prevention is most needed, only one-quarter (23.4%) are currently receiving migraine-specific preventive treatment.
- ◆ And for the nearly 40% of migraine cases who make up the combined “offer” and “consider” prevention group, only 1 in 5 (19.6%) currently receive migraine specific preventive treatment.
- ◆ Among migraine cases who never used preventive treatment, 19.3% should be offered prevention and 13.1% should consider it, a total of one-third (32.4%) are potential candidates. The need is higher among females where 34.0% are candidates vs. males where 27.5% are candidates (p<.001).
- ◆ Identifying migraine patients who may be candidates for preventive therapy will most likely improve headache outcomes.

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