

Relationship Between High Frequency Nausea and Treatment Satisfaction in Episodic Migraine (EM): Results from the American Migraine Prevalence and Prevention (AMPP) Study

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BACKGROUND

- Nausea is a defining and debilitating feature of migraine and is known to be a major challenge to migraine care. Migraine-associated nausea is associated with delayed use of oral medication (Pryse-Phillips et al., Headache; 2006,46:1480-1486) which may impact therapeutic efficacy.
- Perceptions of medication effectiveness and the disease burden associated with frequent nausea are not well understood.

OBJECTIVE

- To assess the impact of headache-related nausea on perceptions of medication effectiveness, side effects, and overall satisfaction with acute treatment in persons with EM. To explore headache feature frequency as a function of increases in nausea.

METHODS

- Respondents to the 2009 AMPP survey who met criteria for EM were identified using ICHD-2 criteria (<15 headache days/month).
- Respondents rated occurrence of headache-related nausea (occurring none of the time, rarely, < half the time, or ≥ half the time with headache).
- We examined headache symptoms and features, attitudes about medications respondents used for headache, treatment satisfaction and perceived medication effectiveness (using the 3 summary items from the Patient Perception of Migraine Questionnaire [PPMQ-R]).
- Odds ratios (ORs) from ordinal logistic regression (adjusting for socio-demographics: age, gender, race, income, census region and population density) were used to assess the influence of nausea on outcome measures.

CONCLUSIONS

- In this US population sample of persons with EM, frequent headache-related nausea was associated with greater medication-related impairment at work/school, with household work, and in social and leisure activities.
- Despite the greater symptom frequency and severity associated with frequent nausea, ratings of medication effectiveness and satisfaction were generally high- possibly due to prior medication adjustments and/or accommodation. Less satisfaction with treatment was seen with increases in nausea frequency and further work is planned to better understand and predict treatment satisfaction in persons with migraine.
- Treating nausea may translate to benefits in the overall burden of migraine among persons with episodic migraine.
- Longitudinal analyses are underway to better understand the causal pathway between frequent nausea and migraine-related burden.

RESULTS

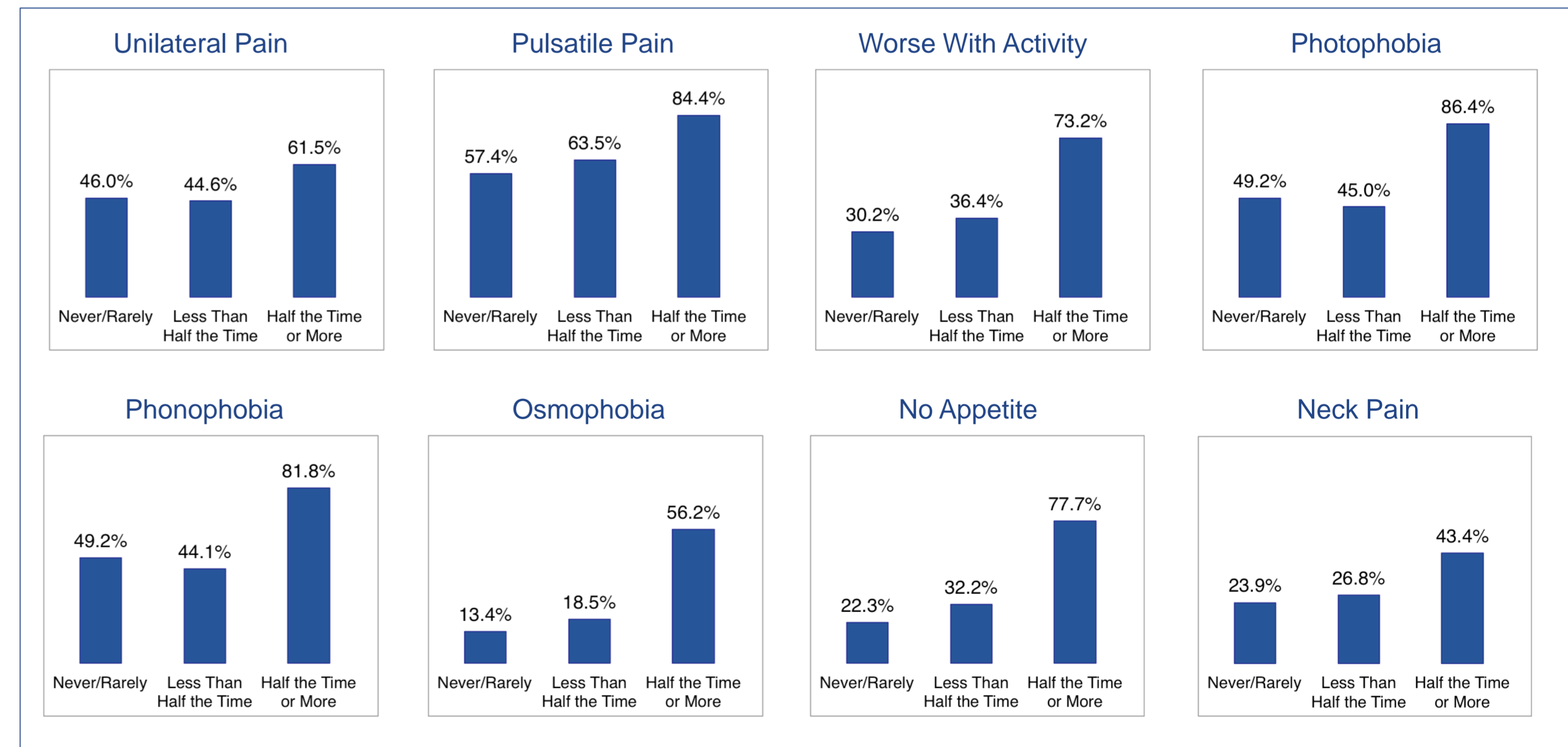
- Among 6,448 persons with EM and nausea symptom data, nearly half (49.5%) reported frequent nausea (≥ half the time) with headache, 29.1% reported nausea less than half the time and 21.4% reported nausea never or rarely with their headaches.
- Respondents with frequent vs. no/rare nausea more often reported that their headache medications interfered with...
 - work or school functioning** (OR 1.66, CI 1.41–1.94, p<.0001)
 - the ability to perform household work** (OR 1.49, CI 1.28–1.74, p<.0001)
 - family or social activities** (OR 1.50, CI 1.29 –1.75, p<.0001)

Table 1: PPMQ-R Ratings of Medication Effectiveness and Satisfaction by Nausea Frequency

		Never/Rarely	Less Than Half of the Time	Half of the Time or More	Less Than Half vs. Never/Rarely	Half the Time vs. Never/Rarely
Medication Effectiveness	Somewhat/Very Dissatisfied	9.3%	10.3%	13.0%	OR 1.19	OR 1.42*
	Neutral	6.5%	8.0%	7.9%	(CI 0.99-1.44)	(CI 1.2-1.68)
	Somewhat/Very Satisfied	84.1%	81.7%	79.1%		
Medication Side Effects	Somewhat/Very Dissatisfied	5.7%	7.5%	9.3%	OR 1.08	OR 1.27*
	Neutral	30.8%	30.1%	32.0%	(CI 0.93-1.25)	(CI 1.11-1.44)
	Somewhat/Very Satisfied	63.5%	62.4%	58.7%		
Overall Satisfaction	Somewhat/Very Dissatisfied	6.5%	6.7%	9.7%	OR 1.23	OR 1.52*
	Neutral	6.8%	9.0%	8.8%	(CI 1.0-1.5)	(1.27-1.82)
	Somewhat/Very Satisfied	86.7%	84.2%	81.5%		

* Ordinal Logistic Regression yielded significant (p<.0001) odds ratios.

Figure 1: Headache Features (Reported Half the Time or More) by Nausea Frequency*



* Ordinal Logistic Regression yielded significant (p<.0001) odds ratios for all contrasts except Unilateral Pain contrasting Never/Rarely vs. Less Than Half the Time