Supplemental Information

EXPANDED MATERIAL PERTAINING TO THE METHODS SECTION OF THE ARTICLE

1. Setting
Taitung County Adolescent Headache Survey used school-based sample to investigate the epidemiologic profiles of migraine, CDH, psychological disturbances, and their interactions in adolescents.1 In Taiwan, education is compulsory from ages 7 to 15. Adolescents aged 13 to 15 years attend middle schools (seventh to ninth grades). Because >90% of adolescents in Taiwan are enrolled in public middle schools and the remainder attends private schools, our sample generally represents a community-based sample.

For the current study, we selected 3 public middle schools in Taitung County based on geographic factors: Tung-Hai and Shin-Sheng middle schools are located in urban areas and Chih-Pen middle school is located in a rural area. Our study was conducted each year from 2005 to 2009 in mid-February or early March, which was in the middle of a school year. Because the study required the participants to fill out the questionnaire, those who were mentally challenged were excluded from our baseline cohort.

2. Questionnaire

1. Sociodemographics: living arrangement referred to living with parents, single parent, or nonparent caregivers. The parental educational level was categorized as illiterate, elementary school (K–6), middle school (7–9), high school (10–12), college, university, and graduate/postgraduate school. Parental occupation was categorized into 5 levels: unskilled worker, semi-skilled or skilled worker, clerical worker or shop owner, semiprofessional, and professional. The household economic status was self-reported by the participants as “wealthy,” “middle class,” “below average,” or “poor.” Acute family distress in the past year included a change in parental marital relationship (divorce, separation, or frequent quarrels between parents), financial strain of the family (tight household budget or unemployment of either parent), and health issues of the participants or their family members. Parent-child relations referred to conflict, cohesion, and the amount of parenting time.

2. Headache questionnaire: this questionnaire assessed the headache profile during the previous 3 months, including headache severity (rated as mild, moderate, or severe), duration, frequency (the average number of days per month when a headache occurred), locations of pain, characteristics, accompanying symptoms, aura symptoms, painkiller usage, and school absence due to headache or other causes.1

3. The Adolescent Depression Inventory (ADI): the ADI is a self-administered 31-item “yes-no” questionnaire (total score 0–31) that has a high internal consistency of 0.86 (Cronbach’s α) and test-retest reliability of 0.76. A cutoff score of ≥19 suggests depression and warrants a psychiatric referral.2

4. Pediatric Migraine Disability Assessment (PedMIDAS): disability was graded on the basis of the total PedMIDAS score: grade I (score 0–10), indicating little to no disability; grade II (score 11–30), mild disability; grade III (score 31–50), moderate disability; and grade IV (score ≥51), severe disability.3–5

3. Selection of Potential CDH Subjects
The subjects who reported on questionnaire having (1) a headache frequency of ≥7 days per month, (2) school absence due to headache for ≥3 days in the previous semester, (3) analgesic usage for headaches for ≥5 days per month, or (4) a PedMIDAS score ≥20 were selected. We used low cutoff values to allow more subjects to be screened.

4. Psychiatric Interview
Mini-International Neuropsychiatric Interview for Children and Adolescents (MINI-Kid) follows the Diagnostic and Statistical Manual of Mental Disorders—4th Edition and International Classification of Diseases—10th Revision criteria for the diagnosis of psychiatric disorders. The MINI-Kid has been revised in past years, and the latest version (6.0.0) sets the cutoff value for high suicide risk as ≥17 points. Because our study was started in 2005, we used MINI-Kid version 1.01, which set the cutoff value as ≥10 points, throughout the study period to maintain the consistency.

5. Potential Risk Factors for Incident CDH
In this study, potential risk factors for incident CDH and its subtypes included...
female gender, obesity, lower household economic status (self-reported as “below average” or “poor”), lower parental education level (both parents being skilled, semiskilled, or unskilled workers) levels, lower occupation level (middle school diploma or less), acute family financial distress (the presence of a tight household budget or parental unemployment that occurred in the past year), little parenting time, depression (ADI score $\geq 19$), a higher baseline headache frequency ($\geq 7$ days/month), a diagnosis of migraine or probable migraine at baseline, a higher headache-related disability (PedMIDAS grade II–IV), and acute medication usage ($\geq 1$ days/month).

EXPANDED MATERIAL PERTAINING TO THE RESULTS SECTION OF THE ARTICLE

1. Participants Versus the Subjects Lost to Annual Follow-up

Compared with the participants, the subjects lost to the first or second annual follow-up were more likely to be boys (59.7% vs 50.0%, $P = .001$), had a lower household economic status (50.7% vs 31.1%, $P < .001$) and higher ADI scores at baseline (median = 11 [IQR 5–17] vs 7 [IQR 3–13], $P < .001$), and were more likely to have migraine or probable migraine at baseline (33.5% vs 23.6%, $P < .001$). Age (13.2 $\pm$ 0.5 vs 13.2 $\pm$ 0.5 years, $P = .961$) and BMI did not differ (20.7 $\pm$ 3.8 vs 20.8 $\pm$ 4.1, $P = .602$).

REFERENCES