



INFORMATION FOR HEALTH CARE PROFESSIONALS



Abuse, Childhood Maltreatment and Migraine

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Definition and Prevalence of Abuse

Abuse can be physical, sexual, or emotional/psychological (e.g., intimidation, humiliation, bullying).ⁱ Additional types of abuse are defined according to the demographic group affected, (e.g., child and elder abuse.) Abuse is common in all countries and cultures. Both victims and perpetrators may be persons of any age, gender, race, ethnicity, or sexual orientation. Although difficult to accurately assess, the World Report on Violence has estimated that 22% of women in the US have been physically assaulted by their partner at some point in their lives (i.e., intimate partner violence).ⁱⁱ Among US college students (both male and female), estimates of physical violence range from 20-50%, psychological abuse from 75-88%, and sexual abuse from 12-25%.

Childhood Maltreatment/Abuse and Migraine

The Federal Child Abuse Prevention and Treatment Act (CAPTA) defines child abuse and neglect as, at minimum: "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or

failure to act which presents an imminent risk of serious harm." These experiences are termed "adverse childhood experiences" (ACEs). They include:

1. Abuse (Emotional Abuse, Physical Abuse, Sexual Abuse)
2. Neglect (Emotional Neglect, Physical Neglect)
3. Household Dysfunction (Mother Treated Violently, Household Substance Abuse, Household Mental Illness, Parental Separation or Divorce, Incarcerated Household Member).ⁱⁱⁱ

Child maltreatment is common is very common in both the US and internationally. In 2009 alone, the U.S. Health And Human Services Child Protective Services received more than 2 million reports of suspected child abuse. The true prevalence is most likely higher as the majority of cases are likely not reported. In that same year, it was estimated that 1,760 children died in the US due to child abuse or neglect. Childhood maltreatment/abuse is related to increased comorbidities including medical conditions (headache, migraine, fibromyalgia, chronic pain conditions, cardiac conditions, irritable bowel disease) and psychological conditions and behavioral issues (depression, anxiety, borderline personality disorder, substance abuse disorders, panic disorder, obsessive compulsive disorder, dissociative disorder, and conduct disorder/legal problems. Childhood abuse may also result in victims perpetrating abuse upon others (i.e., revictimization) and/or and self harm (e.g., cutting, burning, or suicide attempts).^{iv,v}

Childhood maltreatment/abuse is comorbid with migraine in adults in both clinic and population based samples. An examination of the American Migraine Prevalence and Prevention study (AMPP) found that among 8,305 adults from the general US population with migraine, 24.5% had experienced emotional neglect, 22.5% experienced emotional abuse, and 17.7% experienced sexual abuse before age 18.^{vi} In a study of 1,348 adults with migraine from 11 headache clinics in the US and Canada the prevalence of childhood maltreatment types was: physical abuse: 21%, sexual abuse 25%, emotional abuse 38%, physical neglect 22%, and emotional neglect 38%.^{vii} The effects of multiple subtypes of abuse are cumulative. As so there is a "dose-response" between the number of types of abuse one experiences and increases the prevalence of frequent headaches.^{viii}

Maltreatment early in life may alter the brain's response to stress via the hypothalamus-pituitary-adrenal system. Analyses of inflammatory markers in adults have revealed higher levels in those persons who had been exposed to maltreatment in childhood, suggesting a mechanism for the link. There is also growing evidence that genes are responsible for either increased vulnerability or resilience in response to early stressful experiences. As a result of epigenetics, early stressful experiences may change gene expression.

Clinical Care of Victims of Current or Previous Abuse

Clinical actions include assessment, discussion, documentation, reporting to authorities when appropriate, providing resources, and making appropriate referrals and suggestions for treatment.

Assessment and Discussion

Healthcare professionals (HCPs) should be vigilant for signs of current abuse, which may include physical injuries or statements of fear of violence. The majority of abuse and violence is perpetrated by persons known to the victim (e.g., parent, spouse or partner, caregiver). Assessment of abuse may be conducted as part of written questionnaires or direct questioning in initial and follow up visits. Well validated questionnaires include the Childhood Trauma Questionnaire and the Adverse Childhood Experiences study questionnaire. All assessment and discussion should be conducted in private, away from family members or others accompanying the patient. Clarify limits of confidentiality and legal reporting requirements with patients. HCPs should behave in a respectful and non-judgmental manner toward the victim and offer resources and treatment options if abuse is present. If possible, HCPs should involve a social worker or other mental health care provider. HCPs should familiarize themselves with local resources and options in case the patient feels it is too dangerous to return home. Local and national resources such as the Domestic Violence Hotline number can be posted in waiting rooms and in bathrooms. See the National Consensus Guidelines on Identifying and Responding to Domestic Violence Intimation in Health Care Settings^{ix} for more information and suggestions.

Documentation and Mandated Reporting

HCPs should comply with their healthcare facility and/or state requirements for documentation of physical injuries. In general, documentation should include the name of the abuser, details about the abuse (date(s), location, physical markings, frequency, severity, and other relevant information). All questions need to be asked with compassion and without judgment as discussion may evoke a strong emotional response. If possible, documentation should include statements in the patient's own words (include statements in quotes). If physical signs such as bruising or other injuries are present, obtain consent and document with photographs.

All 50 States, the District of Columbia, and the U.S. Territories have mandatory child abuse and neglect reporting laws that require certain HCPs and institutions to report suspected maltreatment to a child protective services (CPS) agency. Abuse of elders and disabled persons is also required by law in most locations. Some states require reporting injuries which are suggestive of abuse. Refer to your state medical board for regulations in your state.

Making Referrals and Psychological Treatment of Abuse and PTSD

Individuals who experience childhood maltreatment and/or abuse in later life are at risk for developing posttraumatic stress disorder (PTSD). PTSD results from exposure to an event that caused feelings of intense fear, helplessness, or horror. (See AHS "PTSD" pamphlet for more information.) Autonomic nervous system dysregulation may play a role in both PTSD and migraine. There are several psychological/behavioral therapies with empirical efficacy which can be useful both during and immediately following a traumatic experience, or years later to help individuals cope with the aftereffects of the experience and any comorbid psychological conditions or behaviors including PTSD, borderline personality disorder, self-harm. These treatments include cognitive behavioral therapies (CBT), relaxation therapies, and biofeedback.

Cognitive behavioral therapies (CBT) have the best evidence for treating the effects of abuse, maltreatment and PTSD. There are several subtypes of CBT with scientific data supporting their use in persons with PTSD or history of abuse including: cognitive therapy, exposure therapy, stress inoculation therapy, and eye movement desensitization and resensitization (EMDR) therapy.

Biofeedback is a helpful tool for teaching awareness of activation and control of physiological and emotional responses to stress. Relaxation therapies are a group of strategies that can counteract the sympathetic “fight or flight response” by teaching the “relaxation response” in order to engage the parasympathetic nervous system. Dialectic behavior therapy (DBT) is indicated for individuals who engage in self harm behaviors such as cutting or suicidal thoughts or actions. DBT combines the basic principles of CBT with relaxation training, mindfulness meditation, and other proven interventions.

Resources for Health Care Providers

- American Academy of Neurology “Position Statement on Abuse and Violence”, *Neurology*, 78, 2012, 433-435. www.aan.com/view/abusestatement.
- Tietjen GE. Office assessment for abuse and management of the battered patient. *Neurology: Clinical Practice*, 2012, 5-12.
- National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings available at <http://www2.aap.org/pubserv/PSVpreview/pages/Files/Consensus.pdf>. This excellent resource provides suggestions on indicators of abuse, sample safety plans, validated assessment tools, confidentiality procedures, and links to resources including posters, handouts, pocket cards, and other items.
- National Clearinghouse on Child Abuse and Neglect Information: <http://nccanch.acf.hhs.gov>
- Child Welfare Information Gateway: www.childwelfare.gov/responding/reporting.cfm
- National Clearinghouse on Abuse in Later Life: www.ncall.us
- National Center on Elder Abuse: Tel: 302-831-3525, www.ncea.aoa.gov

Resources for Patients

- AHS Headache Toolbox: Schulman EA. Abuse and Maltreatment: Their Effect on Headache. *Headache*. 2011; 51:1579-1580. http://www.americanheadachesociety.org/assets/1/7/Abuse_and_Maltreatment_Nov-Dec_2011.pdf
- National Domestic Violence Hotline: Tel: 1-800-799-SAFE (7233), www.ndvh.org
- National Sexual Assault Hotline: Tel: 1-800- 656-4673, www.rainn.org
- National Organization for Victim Assistance (NOVA): Tel: 1-800- 879-6682, www.trynova.org
- Futures without Violence: www.futureswithoutviolence.org/section/_get_help, Tel: 1-800-799-SAFE (7233)
- Manweb: (a website with information for battered men): www.batteredmen.com.

- To find a mental health care professional:
 - American Psychological Association (APA): www.apa.org
 - Association for Behavioral and Cognitive Therapies (ABCT): www.abct.org
 - American Headache Society (AHS): Perform provider search by type: “psychologist” or “psychiatrist”: www.americanheadachesociety.org

References

ⁱ <http://www.cdc.gov/ViolencePrevention/intimatepartnerviolence/definitions.html>.

ⁱⁱ Heise L, Garcia-Moreno C. Violence by intimate partners. In: Krug EG, Dahlberg LL, Merck JA, et al., eds. *World Report on Violence and Health*. Geneva: World Health Organization; 2002.

ⁱⁱⁱ The Aversive Childhood Experiences Study. Available at: www.ACEStudy.org. Accessed on April 20, 2012.

^{iv} Green JG, McLaughlin KA, Berglund PA, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication I: associations with first onset of DSM-IV disorders. *Arch Gen Psychiatry*. 2010; 67:113-23.

^v McLaughlin KA, Green JG, Gruber MJ, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication II: associations with persistence of DSM-IV disorders. *Arch Gen Psychiatry*. 2010; 67:124-32.

^{vi} Tietjen, GE, Buse, DC, Fanning, KM, Serrano, D, Reed, ML, Lipton, RB. The Relationship of Childhood Maltreatment with Migraine and Tension-Type Headache: Results from the American Migraine Prevalence and Prevention (AMPP) Study. Presented at the American Headache Society annual scientific meeting, Los Angeles, CA, 2012.

^{vii} Tietjen GE et al. Childhood Maltreatment and Migraine (Part I). Prevalence and Adult Revictimization: A Multicenter Headache Clinic Survey. *Headache*. 2009; 50:20-31.

^{viii} Anda R, Tietjen G., Schulman E, et al. Adverse Childhood Experiences and Frequent Headaches in Adults. *Headache* 2010; 50:1473-81.

^{ix} National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings available at <http://www2.aap.org/pubserv/PSVpreview/pages/Files/Consensus.pdf>. Accessed April 20, 2012.