interviews with the hospital workers who facilitate the program. Data was subject to a thematic analysis using a framework approach.

**Results:** Preliminary findings indicate that the program works for 12-15 year olds with chronic illness who are able to attend an additional evening group in the hospital, with many relying on parents who are willing to seek it out and facilitate their attendance. It works for those who engage with the idea of accepting they have an illness, and that they can have that in common with other people around their age. The program functions as a social process during that initial 8 weeks, bringing together adolescents who have illness experience, but not diagnosis in common, creating a sense of belonging. The location in the paediatric hospital and facilitation by a nurse engendered a sense of both physical and emotional safety, while integrating games and fun into the discussion increased motivation and inspired the participants to contribute, and continue to attend.

**Conclusions:** The 8 week program was seen as a way to establish a social network for the peer leaders, enabling them to meet and socialise as they negotiate their adolescent and early adult years with a chronic illness. Future work to develop this peer support program could examine the impact of different locations, studying it with chronic illness. Future work to develop this peer support program could examine the impact of different locations, studying it with chronic illness. Future work to develop this peer support program could examine the impact of different locations, studying it with chronic illness. Future work to develop this peer support program could examine the impact of different locations, studying it with chronic illness. Future work to develop this peer support program could examine the impact of different locations, studying it with chronic illness. Future work to develop this peer support program could examine the impact of different locations, studying it with chronic illness.

**Sources of Support:** Philanthropic funding from private donors to the Department of Adolescent medicine at the Children’s Hospital at Westmead allowed the part time employment of P Lewis for 12 months to assist with data collection.

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**THE EFFECT OF BIOFEEDBACK THERAPY ON DEPRESSION AND ANXIETY IN THE PEDIATRIC AND ADOLESCENT WHEN USED TO TREAT MIGRAINES, CHRONIC HEADACHES AND CHRONIC ABDOMINAL PAIN**

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**Purpose:** Chronic headaches, migraines and chronic abdominal pain can be associated with anxiety and depression. Biofeedback therapy teaches coping skills for pain through instruction on controlling the body’s physiological function and may help alleviate associated depression or anxiety. We looked for an effect of biofeedback therapy for patients with migraines, chronic headaches, or chronic abdominal pain on pain frequency and intensity and on associated depression or anxiety.

**Methods:** In this retrospective chart review, 32 pediatric and adolescent patients referred to the biofeedback clinic between 2011-2013 who completed 5-7 biofeedback sessions underwent chart review. Intake and exit data on pain intensity and frequency as well as the Children’s Depression Inventory (CDI) and Multidimensional Anxiety Scale for Children (MASC) questionnaires were abstracted. Change in pain scores was measured at the sessions where the CDI and MASC forms were administered and paired t-tests were used to compare total and subscale scores within subjects at these two time points. We also examined differences specifically among the patients who at intake has elevated CDI and MASC scores.

**Results:** The mean age was 14.3 years (range: 10-18) with 22 females and 10 males. 19.4% had migraine with aura, 38.7% had migraine without aura, 12.9% had episodic headaches, 6.5% had post-concussive headaches, 32.3% had chronic daily headaches, 9.7% had tension-type headaches, 25.8% had abdominal pain, and 3.2% had abdominal pain with rumination. Chief complaint mean length was 40.3 months (range: 3 months-10 years). The mean length of time between intake and exit was 122 days (range: 76-241 days). Of the 32 study participants, 13 experienced a 50% or greater reduction in pain frequency and 9 experienced a 50% or greater reduction in pain intensity. The mean CDI score was 55.94 ± 1.97 at intake and 48.94 ± 1.34 at exit (t(df) = 31, p = .0001). All of the CDI subscales besides the interpersonal problems subscale had statistically significant differences between intake and exit. 11 participants had an intake CDI T-score of 60 or above, which designates onset of depression on the CDI scoring scale. These participants had a mean score of 68.6 ± 2.14 at intake and 53.3 ± 2.15 at exit (t(df) = 10, p = 0.0002). The mean MASC score was 53.66 ± 1.93 at intake and 51.69 ± 1.72 at exit, a difference that was not statistically significant (t(df) = 31, p = 0.19). However, two MASC subscale scores (physical symptoms: tense/restless and social anxiety: humiliation/rejection) did indicate statistically significant differences between intake and exit. 9 participants had an intake MASC T-score of 60 or above, which indicates above average anxiety according to MASC guidelines. These participants had a mean score of 67.7 ± 1.43 at intake and 60 ± 2.02 at exit (t(df) = 8, p = 0.02).

**Conclusions:** Biofeedback therapy, partially effective for pain reduction, was associated with a statistically significant decrease in depression in adolescents with migraine, chronic headaches and chronic abdominal pain. Biofeedback therapy appeared to be particularly effective in psychological symptom reduction for patients that were most severely affected by anxiety. This suggests that biofeedback therapy may be beneficial for patients that are experiencing chronic pain along with high levels of associated anxiety or depression.

**Sources of Support:** None.

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**JUVENILE JUSTICE & VIOLENCE**

**FIREARM ACCESS DETECTION DURING ROUTINE HEALTH CARE APPOINTMENTS**

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**Purpose:** The American Academy of Pediatrics strongly recommends health care providers (HCPs) inquire about firearms in the home during routine health care appointments. The purpose of this study is to determine 1) whether HCPs document asking youth about access to firearms in the home, and 2) whether HCP documentation coincides with youth response.

**Methods:** Patients ages 12-17 scheduled for a routine physical exam in an urban, adolescent medicine clinic between Oct 2010-December 2011 were eligible. Consent from adolescents and consent from parents (both by phone) was obtained to participate in a study assessing violence risk. As part of usual care, youth had the opportunity to answer a standardized health assessment, including whether there were guns in their home. Chart review was completed approximately one month after the routine health care appointment. Data collected included whether providers documented presence of firearms in the home, and youth response to whether they had firearms in their home. Rates of documentation of firearm presence and self-reported rates of firearm presence were calculated. Correlations between youth and provider self report
ASSOCIATION BETWEEN VICTIMS OF BULLYING AND WEAPON CARRYING AMONG HIGH SCHOOL STUDENTS IN THE UNITED STATES
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Purpose: In the wake of Columbine and other school-based tragedies, public health efforts have intensified to reduce the incidence of bullying in schools. Although verbal taunts are most common in grade school and middle school, physical assaults with fear of lethal retaliation are likely greatest in the high school setting. To date, there has been no analysis of high school (HS) students nation-wide with respect to weapons carrying by victims of bullying (VoB). Using national data from the CDC’s 2011 Youth Risk Behavior Survey, our objectives were to identify the frequency of weapons carrying in school and in general by VoB and to identify demographic and social risk factors.

Methods: Data from the 2011 Youth Risk Behavior Surveillance System were analyzed for HS students grades 9-12 (N = 15,425). Being a victim of bullying was measured through a single self-report question (“During the past 12 months, have you ever been bullied on school property?”). VoB were compared with those who denied being a VoB were compared regarding age, sex, grade, race, height, weight, and BMI percentile as well as past threats to property or personal safety. All analyses were done using procedures specifically suited for survey data in SAS 9.2.

Results: 49/784 (70%) of eligible youth consented, and 85% (n = 466) attended the appointment. Mean age was 14.5 (sd 1.6); 65% female, 45% Hispanic, 38% Black, 17% White. 300/466 (64%) completed the health screening questionnaire. Of those 300 youth who completed the questionnaire, 83.3% reported having a gun at home, 83.3% reported not having a gun in the home, and 8.3% did not answer the question about firearms. Evaluating provider documentation of firearms in the home, 81% of the time there was no documentation; 17% of the time providers documented that there were not any firearms present, and 1.7% of the time providers documented that there was a firearm in the home. When there was actual documentation, 9% of the time providers reported the presence of a firearm. For youth who reported having guns in the home (n = 24), 50% of the time providers did not document at all about firearms; 16% of the time there was documentation that there were not firearms when youth reported there were firearms present, and 33% of the time providers documented the presence of firearms. No demographic characteristics, including age, race/ethnicity, gender or SES were associated with whether youth reported a firearm, or whether a provider documented whether a firearm was present in the home.

Conclusions: The vast majority of the time health care providers are not documenting whether there are firearms in the home during routine health care visits. HCPS missed documenting about firearm presence in 67% of youth who report access. However when they did document, they correctly documented 67% of the time. There are significant missed opportunities to counsel families on firearm safety if the topic of firearms is not being addressed during routine health care appointments.

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