



(164) Relationship between previous experiences with abuse and the likelihood of doctor's visit after a medical injury or illness

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There is growing evidence that psychological and social factors can predict medical outcomes. Maltreatment and abuse have been strongly associated with later mental and physical health problems. In particular, early trauma events have been associated with higher pain, depression and somatization levels as well as unexplained medical illnesses. The purpose of the current study was to determine the relationship between individual's history of abuse with behaviors related to medical treatment (i.e. visit a physician/doctor after an injury). The current study consisted of 542 college students from a Southwestern University. History of medical injury/illness, doctor visit(s) after the injury/illness, and the Sexual-Physical Abuse History Questionnaire (SPA) were inquired via an online survey. Preliminary results demonstrated that 28% of the students reported self experience or witness a sexual, assault outside a home, physical or psychological abuse. A linear regression analysis was conducted to determine if self experience or witnessing an abuse predicted whether individuals visit a doctor after a medical injury or illness. Results indicated that abuse predicted a significant 10% percent of the variance ($p < .001$). In addition, sexual abuse and assault outside the home showed a positive significant statistical correlation with doctor's visit related to medical illness that are often not common in a college student population: fibromyalgia, carpal tunnel, arthritis, complex regional pain syndrome, and migraines. The results of this study support previous investigations, which state that the experience of abuse may exacerbate behaviors often related to unexplained medical illnesses. The results of this study stress the importance of evaluating psychosocial factors in medical practices.

(165) Perceived versus actual cognitive impairment in a chronic non-malignant pain sample: examining conditional effects

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Numerous studies indicate discrepancies between reports of subjective cognitive impairment and objective performance on standardized measures of attention, memory, and executive function. The discrepancy is attributed to a moderating effect of depression in chronic pain patients (CPPs) with rheumatoid arthritis and lupus. We intended to clarify the relationship between perceived and actual cognitive impairment in a sample of patients with chronic non-malignant, nociceptive pain. Study approved by UAB IRB for Human Use and included individuals with unmedicated, moderate intensity pain ($n=29$) and healthy controls ($n=30$). Participants completed: a) brief neuropsychological testing, b) Cognitive Failures Questionnaire (CFQ), which assesses self-perceived cognitive deficits, and c) Center for Epidemiological Studies–Depression Scale. Conditional Process Analysis was used to determine moderating effects of depression and pain on the relationship between perceived cognitive failures and a global score on the neuropsychological measures. A significant multiple moderator model emerged, $\Delta R^2=.06$, $F(1,50)=5.21$, $p<.05$. Post-hoc analyses indicated that chronic pain was a significant moderator of the subjective-objective relationship over and above effects of demographic factors, $R^2=.44$, $F(6,22)=2.89$, $p<.05$. The interaction between depression and subjective cognitive complaints explained a significant portion of the variability in actual performance ($\Delta R^2=.14$). In other words, actual cognitive impairment in non-medicated CPPs was predicted by depression and higher subjective impairment, as well as the interaction between predictors. We underscore the importance of assessing depression in CPPs, with impact of mood not only on pain-related outcomes, but also on perceptions of and actual neuropsychological functioning (even in the absence of pain medications). We will discuss possible pathways of this relationship, including constructs such as negativity bias, negative self-evaluation, and hypervigilance, and the impact of depression itself on cognition. Funded by an investigator-initiated grant from Cephalon Pharmaceuticals.

(166) Interactions between gender and other risk factors are associated with persistent neck pain after motor vehicle collision

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Persistent moderate or severe neck pain (MSNP) after motor vehicle collision (MVC) is an international public health problem. Increasing evidence suggests that the etiology of persistent pain in women and men may differ, but to date gender differences in risk factors for post-MVC MSNP have not been assessed. In this prospective observational study, we evaluated for gender differences in risk factors for MSNP six weeks after MVC. European American men and women ≥ 18 and ≤ 65 years of age presenting to one of eight emergency departments (EDs) in four no-fault insurance states within 24 hours of MVC who did not have fracture or other injury requiring hospital admission were enrolled. Baseline ED assessment included an evaluation of participant demographic, pre-MVC health, and initial symptom characteristics. Six week telephone follow-up assessment included evaluation for the presence of MSNP (defined as neck pain ≥ 4 on 0 - 10 NRS during the past week). Participants reporting involvement in litigation at six week follow-up were excluded. Interactions between gender and other predictors were evaluated and relative risks (RRs) by gender were estimated using Poisson regression adjusted for study site. Interactions with $p < .10$ were considered significant. 711/948 (75%) of enrolled patients completed 6 week follow-up and were non-litigants. The strength of association (RR) between a number of predictors and MSNP significantly differed between women and men, including severe pre-MVC depression (1.2 vs. 2.8), high catastrophizing (1.2 vs. 3.5), highest age tertile (1.3 vs. 3.3), rear end collision (1.1 vs. 2.3), and increased estimated time to physical recover at time of initial ED visit (1.5 vs. 3.0). These findings indicate that risk factors for MSNP 6 weeks after MVC differ between women and men. Further studies are needed to better understand gender differences in the etiology of post-traumatic pain. Supported by NIAMS R01AR056328.

(167) Health service utilization among back pain patients with depression comorbidity

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Low back pain (LBP) is a leading cause of high healthcare utilization and associated costs in the U.S. with a life-time prevalence of 50% to 85%. Depression is a major driver of healthcare utilization, co-occurring with chronic pain in 58% of primary care patients. Identifying subgroups of LBP patients who are likely to show greater utilization without necessarily evidencing better outcomes is necessary to reduce healthcare costs and direct these patients to effective treatments is needed. We sought to understand health services utilization of back pain patients in primary care with and without comorbid depression. We used electronic medical and pharmacy records of participating members at an integrated health system. Participants were ambulatory, age 18 or above, with LBP. We defined an index visit, the first visit in 2004 associated with an ICD-9 code for LBP for a total of 26,014 participants. Data was assessed six-months previous and subsequent to this index date. We defined two groups: depression or no-depression based on an ICD-9 depression code. The average patient was female (55.63%), 54.76 years old ($SD = 14.97$), white (79.91%), overweight (mean BMI = 31.0, $SD = 7.48$), and non-smoker (56%). About 16% had a depression diagnosis. Those in the Depression group had significantly higher rates of psychopathology (anxiety 20% vs. 3%; substance abuse 25% vs 12%), medical comorbidity, sedative-hypnotic prescriptions (40%), long-term opioid therapy (31%), high-dose opioid therapy (42%). Utilization indicated that the Depression group consumed more healthcare overall, including more ED visits ($z = -14.36$, $p < .0001$), ED visit (47%), pain clinic visits (6%), medical visits ($z = -34.6$, $p < .0001$), hospitalizations ($z = -3.35$, $p < .0001$) and opioid prescribers ($z = -18.6$, $p < .0001$). Patients with LBP with depression comorbidity overall consumed more health services compared to patients with LBP without depression comorbidity.