

THE EXPERIENCE OF PAIN AND COGNITIVE FUNCTIONING

Rute F. Meneses, Neurophysiology Department, Hospital Geral de Santo António, Porto, Portugal, José P. Ribeiro, Faculdade de Psicologia e de Ciências da Educação, University of Porto, Porto, Portugal, António M. Silva, Neurophysiology Department, Hospital Geral de Santo António, Porto, Portugal

Several variables have proven to be related to cognitive deficits and to the perception of cognitive functioning. The aim of this study was to clarify the relationship between the experience of pain and cognitive functioning. The Bodily Pain Scale of the SF-36, the Cognitive Functioning Scale of the Epilepsy Surgery Inventory-55, and several neuropsychological tests were administered to a sample of 100 individuals with clinical evidence of partial epilepsy. The participants had a mean age of $M=36.64$ years (14-70) and mean education of $M=7.56$ (0-17), 56 were female and the majority was married/cohabiting ($N=63$). The Bodily Pain Scale presented statistical significant correlations with the total of omitted responses in the Attentive Matrices ($r(90)=-.20$, $p<.04$), with the total number of words achieved in semantic fluency ($r(91)=-.20$, $p<.04$), with the Rey Complex Figure recall ($r(84)=.23$, $p<.03$), with the number of categories achieved and total number of errors committed in the Wisconsin Card Sorting Test- Nelson's version ($r(90)=.24$, $p<.02$; $r(90)=-.26$, $p<.01$, respectively), with the number of designs and number of correct designs in the Design Fluency- free condition ($r(83)=.23$, $p<.03$; $r(83)=.29$, $p<.006$, respectively), with the number of designs and number of correct designs in Design Fluency-four lines condition ($r(82)=.24$, $p<.02$; $r(82)=.24$, $p<.02$, respectively), with the I.A. Test score ($r(87)=.24$, $p<.02$), and with the perception of cognitive functioning ($r(100)=.20$, $p<.03$). These results, in individuals in whom pain is not part of the main pathological process, emphasize the importance of the experience of pain not only in the individuals' perception of cognitive functioning, but also in their cognitive performance. Consequently, they suggest, for instance, that pain should be evaluated when a cognitive rehabilitation program is considered.

Abstract 1373

PERFORMANCE OF REACHING TASKS IN INDIVIDUALS WITH AND WITHOUT A HISTORY OF LOW BACK PAIN

James S. Thomas, Physical Therapy, Christopher R. France, Psychology, Ohio University, Athens, Ohio

The purpose of this study was to determine if a history of low back pain is associated with changes in the motor coordination strategies used to perform multi-joint reaching tasks. Our sample included 29 healthy young adults with ($n=13$) and without ($n=16$) a history of low back pain. Participants included 15 women and 14 men with a mean age of 22 years. At the time of testing, back pain sufferers reported no more than mild pain on the McGill Pain Questionnaire and no restriction of activity due to back pain. Participants reached with their right hand for stationary targets that necessitated progressively greater amounts of forward bending. Participants reached for the targets at two speeds. They were not given specific instructions on how to move, but rather were told to reach in a manner that was most comfortable. For each group, the changes in angle (from initial posture to target contact) of the lumbar spine and pelvis were analyzed by repeated measures ANOVAs. During fast paced reaches, individuals with a history of low back pain used less lumbar spine flexion, $F(1,27)=7.7$, $p<.05$, and less lumbar spine rotation, $F(1,27)=8.0$, $p<.05$, than did participants without a history of low back pain. To complete the reaching task, participants with a history of low back pain compensated for reduced lumbar spine motion by using increased pelvic motion, $F(1,27)=7.0$, $p<.05$. The data suggest that individuals with a history of low back pain who have returned to normal levels of functioning display restrictions of lumbar motion, which may increase risk for re-injury. Our findings will be discussed in terms of their implications for the fear-avoidance (i.e., kinesiophobia) model of back pain.

Abstract 1514

YOUNGER AGE IS ASSOCIATED WITH DIMINISHED CORTISOL STRESS RECOVERY IN WOMEN WITH FIBROMYALGIA.

Heather M. Burke, Mary C. Davis, Alex J. Zautra, Psychology, Arizona State University, Tempe, AZ

Both increasing age and fibromyalgia (FM) have been associated with abnormalities in hypothalamic-pituitary-adrenal (HPA) axis hormones such as cortisol. However, the effect of age on cortisol responses to stress in individuals with FM has not been well-characterized. To examine the effects of age on cortisol stress recovery patterns in women with chronic pain, a community sample of 92 women with physician-verified FM ($N=56$) and osteoarthritis (OA) ($N=35$) participated in a laboratory stress protocol between 1400 and 1500 hours. After a 20-min adaptation period, participants discussed a stressful interpersonal event for 20 min, followed by a 40-min recovery period. At initial rest, stress, and 20 and 40 min post-stress termination, participants rated their pain, fatigue, and perceived stress on a 100-point scale, and provided salivary cortisol samples. Because cortisol levels were highest at initial rest, presumably due to anticipatory stress, the lowest post-stress value was considered the baseline value. FM participants were significantly younger ($FM: 51.46 \pm 7.16$, $OA: 58.17 \pm 9.11$, $p<.0001$), and experienced greater pain and perceived stress (both $p=.001$) throughout the session than their OA counterparts. No age, diagnosis, or interactive effects on baseline or anticipatory cortisol levels emerged. However, there was a significant age effect and an age X diagnosis interaction effect (both $p<.05$) on cortisol recovery (stress minus baseline). Results revealed that in individuals with FM, increasing age was associated with greater cortisol recovery ($p<.01$); in OAs, age was not associated with cortisol recovery. These results indicate that younger women with FM exhibit diminished cortisol recovery, while the cortisol recovery pattern of older women with FM is more similar to their OA peers, suggesting that younger women with FM may be especially vulnerable to the negative consequences of stress.

Abstract 1220

DOES HIV SEROSTATUS DISCLOSURE MODERATE THE EFFECTS OF PERCEIVED SOCIAL SUPPORT ON DEPRESSED MOOD IN BILINGUAL MEN WHO HAVE SEX WITH MEN?

Frank C. Bandiera, Ron E. Duran, Verona Holder, Michael H. Antoni, Neil Schneiderman, Psychology, University of Miami, Coral Gables, FL

HIV serostatus disclosure was investigated as a potential moderator of the relationship between HIV-specific, perceived social support (PSS) and depressed mood. The sample was comprised of participants at baseline from an on-going Cognitive Behavioral Stress Management (CBSM) intervention study. They were 106 gay (84%) and bisexual (16%), HIV-positive Hispanic (64.2%) and White non-Hispanic (35.8%) men, with a mean age of 41 years ($SD = 8.5$ years) and 80.5 months since diagnosis. HIV serostatus disclosure was operationalized as the percentage of persons the subject directly told in his immediate social network (i.e., friends and family). Depressed mood was assessed by the Beck Depression Inventory. Results showed that for the entire sample, HIV disclosure was positively correlated with PSS ($r=.39$; $p<.001$), and PSS was negatively associated with cognitive symptoms of depression ($r=-.24$; $p<.05$) after controlling for time since diagnosis. Although HIV-disclosure did not moderate the PSS-distress relationship in the entire sample, it did moderate the relationship when the sample was split into Spanish and English linguistic groups and when sources of support and disclosure (i.e., friends and family) were considered. Specifically, the interaction of PSS and HIV-disclosure to friends was inversely related to cognitive depression in Hispanics who preferred English ($B = -2.93$; $p = 0.001$); while the interaction of PSS and HIV-disclosure to family was positively related to cognitive symptoms of depression in Spanish-speaking Hispanics ($B = .312$; $p = 0.05$). The findings highlight heterogeneity within the Hispanic community for which language preference may serve as a proxy variable. Moreover, the findings support how the consequences of HIV serostatus disclosure can vary as a function of cultural and linguistic factors.