higher levels of SS are associated with higher rates of PA. Furthermore, only the most sedentary group experienced significantly less social contact and fewer positive interactions than the medium- and high-activity groups, potentially placing them at greater risk for impairment over time. Future research should focus on understanding the relationship between physical activity participation and social functioning in chronic pain and how treatment interventions might incorporate social support into exercise promotion.

(505) Mindfulness-Based Stress Reduction (MBSR) for adolescents with chronic pain: a pilot study
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Chronic pain states such as headaches, abdominal pain and musculoskeletal pain are found in 25% of adolescents. The lack of clinically accessible diagnostic markers often results in extensive and expensive diagnostic workups and ineffective treatments that pose risks for significant iatrogenic complications. There is increasing evidence that central nervous system perturbation is involved in these pain states. Moreover, their trajectory may lead to adults with chronic spine pain and widespread pain (e.g., fibromyalgia). Mindfulness meditation interventions, specifically MBSR, result in symptomatic improvements accompanied by neuroimaging changes in adults. The purpose of this study was to test the feasibility, safety, tolerability and acceptability of a tailored MBSR program in adolescents with chronic pain.

We developed, implemented, and iteratively modified an 8-week adolescent-focused MBSR program (8 weekly 90-min sessions plus a 4 hour retreat) in three cohorts of adolescents. We compared results of psychometric tests in the adolescents before and after the intervention.

Eighteen adolescents enrolled in the program. Of these, 15 adolescents completed the program (Cohort 1 N=7, Cohort 2, N=4, Cohort 3, N=4). Of the 15 who completed the program, 12 (80%) had improvements in physical and psychosocial functional impairment (Functional Disability Inventory; FDI), and 11(73%) improved on the Fibromyalgia/Symptom Impact Questionnaire (FIQR/SIQR). There was no substantial change in either mindfulness or an anxiety sensitivity. Eight of the 15 (53%) reported improvements in perceived stress. Increased time in home practice was associated with improved outcomes in FDI and FIQR/SIQR scores. There were no adverse events. This ongoing study demonstrates that it is feasible to recruit and retain adolescents with chronic pain in an 8-week MBSR intervention. Preliminary data suggest that the intervention may be effective in reducing symptoms and functional disability. We next plan to assess the effectiveness of the intervention in a larger randomized trial.

(506) The complex relationship between pain intensity and physical functioning in fibromyalgia: the mediating role of depression
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Fibromyalgia (FM) is typically associated with the experience of diffuse pain and physical impairment. Depression also commonly co-exists in patients with FM, and it has been correlated with pain intensity and physical functioning. Previous research suggests an association between pain intensity and physical functioning; however, the direct causal relationship between improvements in pain intensity and functioning is not observed in many FM patients. This may suggest that another factor such as depression is mediating this relationship. The current work examined the possibility of depression mediating the role of depression in the relationship between pain intensity and functioning over the course of time. 216 patients with FM completed self-report measures of pain intensity, depression, and physical impairment as part of a larger longitudinal study which investigated interventions to improve physical activity among FM patients. Assessments were completed at baseline, 12 weeks, 24 weeks, and 36 weeks. Longitudinal mediational analyses indicated that depression is a statistically significant partial mediator of the relationship between pain intensity and self-reported physical functioning at all four assessment points. To the authors’ knowledge, this is the first study to explicitly examine this relationship in a sample of FM patients, as well as the first to do so using a longitudinal design; this may significantly add to our understanding of the complexities behind creating improvements in physical functioning in this population. Clinical implication for these findings include focusing on depression and psychological correlates of depression as first line therapeutic targets in improving physical functioning of patients with FM, and treating co-morbid depression in patients with fibromyalgia earlier in the course of treatment to prevent engagement in and the perpetuation of the cycle of disability. This work was a secondary data analysis from a study funded by the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

(507) The Power Over Pain - Coaching intervention decreases pain-related distress and improves functional status in African Americans with cancer pain
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African Americans have been found to have higher levels of pain, more pain-related distress, and lower functional status than White non-ethnic cohorts. This longitudinal randomized control trial tested the POP-C intervention with 310 African American patients recruited from an urban comprehensive cancer center. Participants were 63% (196) female, mean age = 56.28 years (SD = 11.49). Average pain in past 24 hours from the Brief Pain Inventory (BPI) composite was 5.81 (SD = 2.40) on a 0-10 scale. There were no baseline differences in gender, marital status, education, metastasis, perceived control, pain, distress, and function. As typical with behavioral intervention trials, a monotone pain trajectory was observed due to death (5%), illness (10%), and lost to follow-up (9%). The total complete case sample was 236 (24% incomplete cases). Including baseline characteristics in the models did not make any difference in the estimation of treatment effects. Linear mixed model analyses of the primary outcomes—pain, pain-related distress, and functional status—showed significant linear decreases in each of the outcome measures over the 7 week intervention period (p < .01). Intervention effects were tested by comparing linear trends across groups. Intent-to-treat (ITT) and complete-case analyses gave similar results for pain-related distress and functional status; in both, differences in linear trend were significant as predicted (p < .01). The difference in linear trend for pain was not significant in the ITT (p = .065) but significant in complete case analysis (p = .041). The stronger effects observed for pain-related distress and functional status were anticipated because the POP-C intervention was expected to reduce distress and increase functional status irrespective of pain. These results support the POP-C intervention and the model it is based on, validating the effects of the POP-C intervention for African Americans with cancer pain. Funded by NCI 1 R01 CA149432-01A1.

(508) Self-sacrificing moderates the relationship between emotional distress and pain among women with chronic urogenital pain
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Urogenital pain syndromes include chronic pelvic pain, pelvic floor dysfunction, interstitial cystitis, and vulvodynia. The frequency and severity of chronic pain is positively associated with general psychological distress, including depression and anxiety. In addition, emotional and interpersonal factors, including difficulty expressing and asserting one’s own feelings and needs and prioritizing others’ interests above one’s own, may augment pain severity. This study examined whether the construct of self-sacrificing moderates the well-established relationship between general distress and pain symptoms among chronic urogenital pain patients. A sample of 68 female patients with urogenital pain conditions (86% European American, 8.3% African American, 4.2% other; age M = 45.4 years) was recruited from a tertiary care women’s urology clinic. Patients completed measures of psychological distress (Brief Symptom Inventory Global Severity Index), pain (McGill Pain Questionnaire-Short Form), and interpersonal problems (Inventory of Interpersonal Problems-32). We tested the main effect and moderation relationships of distress and self-sacrificing on pain. Both distress (r = .58, p < .001) and self-sacrificing (r = .28, p = .02) were significantly related to pain. The authors hypothesized three main effects: however, were moderated by a significant interaction between psychological distress and self-sacrificing (b = .17, t = 3.02, p < .01). Post-hoc probing revealed that, for patients with relatively high self-sacrificing, psychological distress was...