were: attention problems (F = 4.935, p = 0.004), depression problems (F = 3.073, p = 0.035), ADHD (F = 4.422, p = 0.007), oppositional defiant (F = 2.865, p = 0.045), and total t-score (F = 3.073, p = 0.035). Maternal mean DBI scores were also statistically significantly different when grouped by days of maternal dysfunction due to sleepiness (F = 9.791, p < 0.001). There was no relation between these CBCL categories and maternal DBI scores. DISCUSSION/SIGNIFICANCE OF IMPACT: Maternal self-reported days of dysfunction due to sleepiness may potentially increase risk for their children to develop further psychopathology independent of mothers' depression symptomatology. These findings highlight the need for broader assessment clinically of children's environments with additional focus on maternal function given the potential impact on their children's functional outcomes.

3275

Nonclinical factors associated with contralateral prophylactic mastectomy among breast cancer patients in the Surveillance, Epidemiology, and End Results (SEER) database

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OBJECTIVES/SPECIFIC AIMS: The study aims to measure the associations between nonclinical factors and the likelihood of electing contralateral prophylactic mastectomy [(CPM) i.e. bilateral mastectomy for unilateral cancer] among women with breast cancer, with a focus on the roles of race, relationship status, and geographic location. The outcome of interest is a dichotomized surgery type variable (i.e. CPM versus other surgery). METHODS/STUDY POPULATION:. The Surveillance, Epidemiology, and End Results registry was queried to identify female breast cancer patients diagnosed at stage IA through IIIC from 2010 through 2015 and received surgery as part of their primary treatment (n=174,776). A multilevel logistic regression was used to model likelihood of CPM versus less aggressive surgical treatment (i.e. breast conserving surgery or unilateral mastectomy). Fixed-effects included age at diagnosis, race, relationship status, insurance type, county-level median income, county-level population density, stage at diagnosis (low-stage, IA-IIB; advanced-stage, IIIA-IIIC), an interaction term between race and stage at diagnosis, and breast tumor subtype. County of residence was used as a random-effect. RESULTS/ANTICIPATED RESULTS: Among women with low-stage cancer, compared to the reference class of white women, black women had 0.57 times lower odds of CPM (p<0.0001), Hispanic women had 0.69 times lower odds of CPM (p<0.0001), and Asian women had 0.60 times lower odds of CPM (p<0.0001). Among women with advanced-stage cancer, compared to white women, black women had 0.42 times lower odds of CPM (p<0.0001), Hispanic women had 0.51 times lower odds of CPM (p<0.0001), and Asian women had 0.45 times lower odds of CPM (p<0.0001). Compared to the reference class of single, never-married women, divorced/separated women had 1.25 times greater odds of CPM (p<0.0001), widowed women had 1.11 times greater odds of CPM (p=0.009), and married/partnered women had 1.18 times greater odds of CPM (p<0.0001). County-level variation from the random-effect (MOR, 1.49; p<0.001) had a greater influence on CPM election than fixed-effects for insurance class, breast tumor subtype, county median income, county population density, and year of surgery. DISCUSSION/SIGNIFICANCE OF IMPACT: The nonclinical factors associated with variation in breast cancer surgical decision-making suggest patients and providers both may benefit from further education about surgical treatment options. Providers may also benefit from educational materials that highlight treatment selection disparities within specific contexts, such as surgery for primary unilateral breast cancer. To more narrowly tailor future policy interventions, an additional mixed-methods exploration is recommended to clarify how relationship status and location serve as mechanisms for breast cancer decision-making.

3451

Pain, Quality of Life, and Emotional Measures as Predictors for Outcomes following Surgery for Nerve Injuries

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OBJECTIVES/SPECIFIC AIMS: Examine data from PNID patients to evaluation the strength of associations between pre-operative and post-operative levels of pain, quality of life, and emotional reactions to pain to determine if one or more can serve as better predictors of surgical success than pain. METHODS/STUDY POPULATION: In our preliminary study, we gathered data from a pre-existing database of 464 PNID patients that contains self-reported visual analog scale scores (VAS) of pain intensity, QoL, and depression. We measured these variables at three time points: pre-operatively, post-operatively, and at the final visit. We used the Wilcoxon signed rank test to determine if each of these three variables differed significantly between the pre-operative visit and the post-operative visit period and from the pre-operative visit to the final visit. RESULTS/ANTICIPATED RESULTS: Median time from the pre-operative visit to surgery was 9 weeks; median time from surgery to the post-operative visit was 4 weeks; and median time from the post-operative visit to the final visit was 23.5 weeks. There was a clinically meaningful difference in pain scores between the pre-operative and post-operative visits (median difference 1.15; 95% CI 0.75-1.55). In the period between the post-operative visit and the final visit there was also a decrease in pain (0.90; 95% CI 0.55-1.30). The magnitude of change in median difference of 1.85 (95% CI 1.50-2.20) between the pre-operative visit and the final visit was larger than the change in median difference of 0.90 (95% CI 0.55-1.30) between the post-operative visit and the final visit. The pre-operative visit median QoL score was higher than the median score at the post-operative visit (1.65; 95% CI 1.25-2.10). The smallest median difference in QoL of occurred between the post-operative and the final visit (1.10; 95% CI 0.60-1.45). As seen with the pain scores, the magnitude of change in median difference of 2.50 (95% CI 2.20-2.85) for QoL was greatest between the pre-operative and the final visit. Depression scores showed the least amount of change amongst all the variables, between the pre-operative and the post-operative visit (1.00; 95% CI (0.70-1.40), and similarly between the post-operative visit and the final visit (0.15; 95% CI (0-.40). The median differences between the pre-operative and final visit were greatest in QoL (2.50; 95% CI 2.20-2.85), followed by pain scores (1.85; 95% CI 1.50-2.20), and finally, depression (1.05; 95% CI 0.70-1.40). DISCUSSION/SIGNIFICANCE OF IMPACT: Our results show that all three variables measured improve with surgery and continue to improve over the post-operative course to the final visit. This suggest that the relationships between pain, QoL, and depression should be further investigated. We are hopeful that elucidating how these variables interact in the

PNID patient population, will encourage peripheral nerve surgeons to use these parameters in conjunction with pain intensity to measure outcomes. A follow-up study expanding on these results and including measures of anger and frustration in a larger sample is underway.

3201

Patient Perceptions of Healthcare Provider Interactions among Higher-Weight Women with Eating Disorders: Opportunities for Earlier Screening, Improved Referral, and Increased Clinician Rapport

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OBJECTIVES/SPECIFIC AIMS: Objective: Identify barriers and facilitators of positive patient-provider interactions for AAN patients. METHODS/STUDY POPULATION: Methods: Using a mixed-methods, longitudinal, patient-interview design, N = 29 (to date) women with a history of AAN have been enrolled. Each patient completed a diagnostic interview and standardized surveys to establish ED diagnosis, severity, and associated psychopathology. Transcribed, semi-structured qualitative interviews are assessed for common themes using content analysis methods. RESULTS/ANTICIPATED RESULTS: Anticipated Results: Patients aged 18 to 74 (M = 36.3, SD = 12.0), with mean BMI = 39.8 (22.7-61.1; SD = 11.3), and mean weight suppression (lbs) during their illness = 119.41 (SD = 69.3). Women reported a mean=12.75 years (0-37 years, SD = 10.5) treatment delay. Qualitative analysis revealed the following barriers in healthcare provider interactions: 1) experiences of provider weight-bias, 2) low specificity in ED screening questions, 3) lack of indicated screening procedures/diagnostic tests (orthostatic screening, EKG, food log, labs), and 4) provider praise of ED behaviors. Facilitators: 1) lower BMI at presentation, 2) provider education in EDs, 3) community-provider collaboration, and 4) patient self- and family- advocacy. DISCUSSION/SIGNIFICANCE OF IMPACT: Discussion: Unfortunately, while early intervention best predicts positive outcomes, higher-weight patients in this study experienced significant treatment delay. Translationally, it is taking too long for AAN patients to receive the right treatment at the right time. However, findings indicate that interventions at the provider level (increasing ED education, building community partnerships, increased adherence to screening protocols) could improve screening, diagnostic, and referral practices—and ultimately long-term outcomes for this unique patient population.

3047

Patient-Reported Outcomes Measurement Information System (PROMIS®) Global Health Short Form is Responsive to Patient Reported Changes in Systemic Lupus Erythematosus

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OBJECTIVES/SPECIFIC AIMS: The accurate and efficient serial measurement of patient centered outcomes is a priority in the clinical care of systemic lupus erythematosus (SLE). Patient-Reported Outcomes Measurement Information Systems (PROMIS®) Global Health Short Form (PROMIS10) is a 10-item universal patient reported outcome measure of global physical and mental health with construct validity in SLE. The longitudinal responsiveness (sensitivity to change) of PROMIS10 in SLE patients is unknown. We aimed to evaluate the responsiveness of PROMIS10 in SLE outpatients using patient and physician-derived anchors. METHODS/STUDY POPULATION: Adults meeting SLE classification criteria were recruited from an SLE Center of Excellence. Subjects completed PROMIS10 at two visits a minimum of one month apart. SLE disease activity was measured with a patient global assessment of change, a physician global assessment and the physician-derived SELENA-SLEDAI. Responsiveness over time of PROMIS10 scores was evaluated using known-groups validity. Effect sizes of changes in PROMIS global physical health and global mental health scores from baseline to follow up were compared across groups of patients who differed in their patient global assessment of change, physician global assessment, and SELENA-SLEDAI using Kruskal-Wallis tests. RESULTS/ANTICIPATED RESULTS: A diverse cohort of 228 SLE patients completed baseline surveys (Table 1), with 190 (83%) completing a follow up survey. Using the patient-based anchor, PROMIS10 demonstrated mild to moderate responsiveness to improvement (effect size 0.29) and worsening (effect sizes −0.27 and −0.54) of health status for both global physical health and global mental health (Table 2). Using the physician global assessment and SELENA-SLEDAI as anchors, there were no statistically significant differences in effect sizes across groups. DISCUSSION/SIGNIFICANCE OF IMPACT: PROMIS10 showed responsiveness over time to patient-reported, but not physician-derived changes in lupus health status. These data suggest that PROMIS10 can be used to efficiently measure and monitor important aspects of the patient experience of lupus not captured by physician-derived metrics. Further studies are needed to evaluate the role of PROMIS in optimizing longitudinal disease management in SLE.

3085

Pediatric provider and staff perceptions of HPV vaccine completion compared to other healthcare providers: Effects on perceived need for change

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OBJECTIVES/SPECIFIC AIMS: According to Diffusion of Innovations Theory, an important predictor of successful implementation of a new intervention within an organization is perceived need for change (i.e. tension for change [TFC]). No research has examined factors influencing TFC in relation to human papillomavirus (HPV) vaccination. Providers who assume their clinic already performs well in HPV vaccination coverage may perceive a lower need for assistance for improvement. We assessed the association between perceived HPV vaccine completion compared to peer clinics and perceived support needed to increase HPV vaccination coverage. METHODS/STUDY POPULATION: All providers (physicians/nurse practitioners/physician assistants) and staff (clinical/non-clinical) from 21 pediatric clinics participating in an HPV vaccine quality improvement (QI) intervention study in Tennessee were invited to complete a baseline survey. Perceived comparative performance (i.e. perceived HPV vaccine completion compared to peer clinics) and TFC (i.e. perceived support needed to increase HPV vaccination coverage) were measured on continuous scales of 0-100. We used logistic regression to estimate odds of perceiving higher TFC (upper tertile, score of 51-100) for every unit increase in perceived comparative performance. Analyses controlled for age of respondent, perceived strength of evidence for HPV vaccine guidelines, and clinic