Chronic pain is estimated to affect 11.2% of the adult population in the United States. In the current study, we assessed the effectiveness of a combination of cognitive behavioral therapy, exercise and peer support for pain management. Patients were identified from Mercy Pain Center and invited to enroll in a 12-week “Living Life Well (LLW)” rehabilitation program, which involved biweekly exercise classes and group support meetings. The study was exempt by UNE IRB, so informed consent was waived. Participants completed a pre and post questionnaire with standardized measures of depression (PHQ9), anxiety (GAD7), risk of opioid misuse (SOAPP v. 1.0SF), pain acceptance (CPAQ), treatment outcome in pain (S-TOPS) and disability (Oswestry), as well as functional testing including reach, peg board, sit-to-stand and six-minute walk with a PT Aid. Pre- vs. post-comparisons were performed with data collected from 86 participants, 49 females and 37 males, between May 2012 and May 2015. Student t-test (parametric data) and Wilcoxon Signed rank test (non-parametric data) were used. Effects of gender on selected outcome measures were further evaluated via two-way ANOVA on rank followed by the Bonferroni post-hoc test. Following LLW program, participants showed significant improvement in functional abilities for both sit-to-stand test ($p < 0.001$) and 6-minute walk ($p = 0.014$). There was significant improvement in depression (PHQ9; $p < 0.001$), anxiety (GAD7; $p < 0.001$), and risk of opioid misuse (SOAPP; $p < 0.001$). Perceptions of disability were also reduced (Oswestry; $p < 0.001$). There were also significant interactions between gender and survey time (pre or post) in SOAPP and Oswestry. Significant improvement in SOAPP was observed in males, while significant improvement in Oswestry was observed in females ($p < 0.001$ for both). Results showed there was a statistically significant improvement in quality of life, both emotional and functional, LLW program participants.