# DIFFERENT COMPONENTS OF SUBJECTIVE WELL-BEING ARE ASSOCIATED WITH CHRONIC NON-DISABLING AND DISABLING KNEE PAIN: ELSA-BRASIL MUSCULOSKELETAL COHORT

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**BACKGROUND**

Subjective well-being refers to how individuals assess their own life and comprises three components: negative affect (e.g. depression), positive affect and life satisfaction. The link between pain and depression is well established, and seems stronger when pain is associated with disability. Fewer studies investigated life satisfaction. This study investigated whether these two components of subjective well-being (depressive symptoms and life satisfaction) are associated with chronic non-disabling and disabling knee pain.

**MATERIALS AND METHODS**

Cross-sectional study was performed using baseline data from ELSA-Brasil Musculoskeletal cohort, an ancillary study of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil). Chronic knee pain (CKP; ≥6 months) in the past 12 months was defined by the presence of pain, discomfort, or stiffness. Disability was assessed by the participant's report on limitations to perform normal activities (self-reported, n=2,898), score in WOMAC function subscale (subjective, n=1,432), and five-times sit-to-stand test (objective, n=2,864). Three response variables were derived: 1) without CKP (reference); 2) non-disabling CKP; and 3) disabling CKP. The presence of depressive symptoms (no/yes) was assessed by CIS-R questionnaire. Life satisfaction was assessed through the Satisfaction with Life Scale, higher scores indicating higher levels of life satisfaction. Multivariate multinomial logistic regressions tested for associations of depressive symptoms and life satisfaction with chronic non-disabling and disabling knee pain. All the analyses were adjusted for potential confounders (age, sex, education, BMI, antidepressive use) and mutual adjustment for depressive symptoms and life satisfaction were done to verify the independence of one another. Results are presented for full-adjusted models.

**RESULTS**

The sample comprised 2,898 civil servants (55.9 +/-8.93 years, 52.9% female); 22.5% with chronic pain. Depressive symptoms increased the odds of both non-disabling and disabling knee pain when a subjective disability measure was used (OR=1.60, 95%CI=1.06-2.40 and OR=2.24, 95%CI=1.31-3.81, respectively), as well as the odds of knee pain without self-reported disability (OR=1.54, 95%CI=1.17-2.04) and with objective disability (OR=1.95, 95%CI=1.29-2.93). Life satisfaction were inversely associated with all knee pain phenotypes, regardless of the disability measure used, largest effect observed on pain with self-reported disability (OR=0.93, 95%CI=0.91-0.96), except for disabling pain assessed by a subjective measure.

**CONCLUSION**

The present study showed an independent association between depressive symptoms and life satisfaction with CKP without and with disability. Overall, associations were stronger when pain was accompanied by self-reported, subjective and objective disabilities. These findings corroborate the importance of considering subjective well-being in the knee pain management and its potential consequences on quality of life.