

Background

- Endometriosis is a benign gynecologic condition associated with pain and infertility, affecting up to 30% of women
- Treatment of endometriosis often includes a combination of medical and surgical management
- Short term improvement of pain is more likely with surgical treatment of lesions than diagnostic laparoscopy alone
- Recently, psychological factors such as catastrophization and depression have been associated with poor pain outcomes
- Long term predictors of pain outcomes for endometriosis have not been well described

Objective

- To determine long-term pain outcomes for women undergoing endometriosis surgery based on their demographic, procedural, and psychometric elements

Methods

- This cross-sectional study included 224 women with surgically confirmed endometriosis between 2003-2006. Two to five years postoperatively 79 women were located and administered several validated questionnaires
- Questionnaires included the 1) Short-form McGill Pain Questionnaire 2) Short-form 12 Quality of Life Questionnaire (SF-12) 3) Beck Depression Inventory (BDI) 4) Coping Strategies Questionnaire catastrophizing subscale (CSQ)
- Demographic data was obtained from a review of the medical record
- Simple linear regression was used to estimate associations between the McGill total pain score in addition to the sensory and affective components
- Multiple linear regression model was used to identify associations between total and subtotal McGill pain scores with clinical and psychometric variables

Results

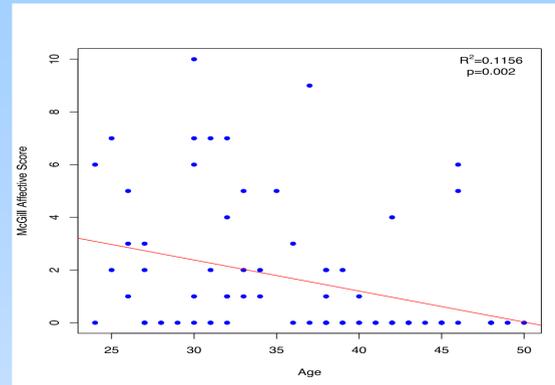


Figure 1. As age increases, women score lower on the McGill affective score

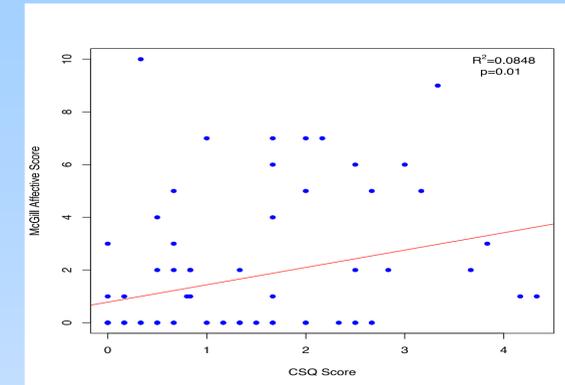


Figure 2. A higher CSQ score is associated with a higher affective McGill pain score

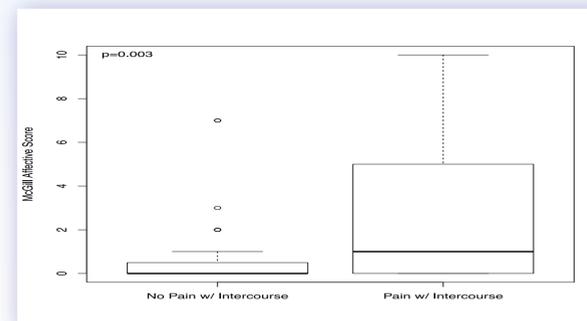
Table 1. Multiple linear regression with Affective McGill Pain Score

	Beta Coefficient	P-value	95% CI
Age	-0.10	0.010	-0.17, -0.24
CSQ score	0.60	0.015	0.11, 1.05
Presence of dyspareunia	1.26	0.022	0.19, 2.33

Table 2. Multiple linear regression with Total McGill Pain Score

	Beta Coefficient	P-value	95% CI
Age	-0.40	0.003	-0.66, -0.14
CSQ score	1.37	0.099	-0.26, 3.00
Presence of dyspareunia	7.74	0.001	3.98, 11.49

Figure 3. Women that report dyspareunia score higher on the affective component of the McGill pain score compared to women whom do not report dyspareunia.



Summary

- 79 women completed the questionnaires. These women were primarily Caucasian (85%), married (72%), aged 24-50 years with at least some college education (60%) and nulliparous (55%).
- 60 women (76%) reported a diagnosis of a comorbid pain condition (fibromyalgia, irritable bowel syndrome, low back pain, etc). 48 women (61%) with a history of anxiety/depression
- 30 women (38%) reported a history of hysterectomy (14 with bilateral salpingo-oophorectomy)
- Our cohort scored slightly above the 25th percentile of the US female population average in both their physical health and mental status, mean SF-12 score 45.59 (SD 10.5) and 44.29 (SD 11.0) respectively
- Subjects had an average pain score of 8.7 (+ 9.4) on total McGill score
- For every 5 year increase in age there is a 0.5 decrease in the affective component of the McGill pain score; for every 1 point increase in CSQ score there is a corresponding 0.6 increase in affective score; women with dyspareunia score 1.26 points higher on affective score than those without.
- For every 5 year increase in age there is a 2 point decrease in total pain score. For every 1 point increase in CSQ score there is a corresponding 1.4 increase in total McGill pain score. Women with dyspareunia scored 7.7 points higher than women who did not report dyspareunia.

Conclusions

- The maladaptive coping behavior (signified by a high score on CSQ) was associated with a high score on affective subscale of McGill questionnaire, in addition to age and comorbid dyspareunia
- These data suggests psychological factors, particularly catastrophization, is associated with persistent pain after endometriosis rather than more obvious factors such as stage of disease or whether surgery was definitive
- The affective measurement of the Short-form McGill Pain questionnaire parallels the response to the CSQ and may be another measurement of catastrophization
- A protective effect of age with persistent pain was identified

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