



2021 CAS Annual Meeting

Chronic Pain

(Abstracts)

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Determining the Need for an Interdisciplinary Approach to Managing Chronic Pelvic Pain

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Introduction/ Background: Chronic Pelvic Pain (CPP) is a difficult clinical problem that presents in approximately 15% of women of reproductive age.¹ CPP management is challenging due to its multifactorial etiology, diagnostic uncertainties and complexity of treatments.¹ An integrated, interdisciplinary approach to management is more effective than traditional segmented strategies.² We anticipated that locally, a large number of women seek help for CPP and are faced with long waits between referral and clinical assessment. A feasibility study was completed to facilitate future evidence-informed clinic design and implementation. The objectives of this feasibility study were to:

1. Determine the number of women with CPP referred to Gynecologists and the Pain Management Unit (PMU) in one year and their wait time for appointment.
2. Determine the annual CPP visits for a) gynecology, b) PMU and c) Emergency Department (ED)
3. Develop a preliminary demographic description and referral pattern to facilitate a future evidence-informed clinic design and implementation.

Methods: Ethics approval was obtained from the local REB. Billing codes for "pelvic pain" and "endometriosis" were used to determine the number of CPP patient visits between Aug 1, 2018 and July 31, 2019. Exclusion criteria included males and females with pain not attributed to CPP. The associated hospital unit number was used to access electronic health records. Health records confirmed new or return appointments and determined the referral wait time and source. The number of clinic appointments, patients that visited the ED, and ED visits per year were documented. Medical or surgical management for CPP that occurred historically was extracted. Descriptive statistics were completed using SPSS.

Results: Patient age, number of patient referrals and visits, wait times, and ED visits are presented in Table 1. In the study period, there were 1415 patients seeking care for CPP, with an average of 3 appointments per year. Most women were referred by a family physician (n = 481, 75%). Endometriosis (n=271, 34%) was the most common referral diagnosis. The most common surgeries that women underwent prior to referral were laparoscopy (n = 259, 32%) and Cesarean delivery (n = 98, 12%). Physiotherapy (n = 21, 2.8%) and counselling (n = 23, 3.1%) were the most common interventions trialed historically other than surgery. Hormone therapy (n = 506, 68%), and non-opioid analgesics (n = 322, 43.6%) were the most common medical management options trialed prior to referral.

Discussion: Our study demonstrates a significant number of women suffer from CPP. These women present frequently to the ED for management and experience significant wait times to access specialty consultation. The demand for care demonstrates the need for centralized management of CPP via an interdisciplinary clinic. Authors can recommend managing CPP as

an institutional priority.

REFERENCES:

1. Allaire C, Williams C, Bodmer-Roy S, Zhu S, Arion K, Ambacher K, et al. Chronic pelvic pain in an interdisciplinary setting: 1-year prospective cohort. *Am J Obstet Gynecol*. 2018;218(1):114.e1-.e12.
2. Jarrell J, Vilos G, Allaire C, Burgess S, Fortin C, Gerwin R, et al. Consensus guidelines for the management of chronic pelvic pain. *J Obstet Gynaecol Can*. 2005;27(9):869-910.

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Table 1. Patient age, number of patient referrals and visits, wait times, and ED visits.

Variable	Mean (SD)
Age	38 years (10)
Gynecology patients	N = 815
Gynecology wait time (avg)	128 days (82)
Gynecology visits per patient (avg)	3 (range 1 to 12)
PMU patients	N = 18
PMU wait time (avg)	189 days (217)
PMU visits per patient (avg)	3 (range 1 to 13)
ED patients	N = 582
ED visits per patient (avg)	2 (range 1 to 11)

Note: Data from one study year

The Impact of Shared Familial Chronic Pain Experiences on Healthcare Utilization

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Introduction: Chronic pain is highly prevalent across Canada and a large proportion of chronic pain patients do not suffer in isolation. There is a significant amount of research examining the impact of chronic pain on family members, when a sole member has a chronic pain condition. However, little research has examined the impacts of having multiple family members with a chronic pain condition. We first aimed to examine pain-related and mental health characteristics among chronic pain patients with a family member with chronic pain (spouse, child, sibling, or other relative) compared to those without. We further aimed to examine associations between having a family member with chronic pain on pain-related healthcare utilization.

Methods: Ethics approval was obtained from the local REB to gain access to self-reported data from a comprehensive Patient Intake Questionnaire (PIQ) completed by outpatients entering the Chronic Pain Clinic at a tertiary hospital between January 20, 2015 and February 12, 2018. Patients self-reported whether they had a family member with a chronic pain condition and completed validated self-report measures on indicators of chronic pain status (pain severity, pain interference), mental health (depressive features, pain catastrophizing), and healthcare utilization (medication use, healthcare encounters, specialists, imaging and tests). The primary analysis included multivariable logistic and linear regression models controlling for sociodemographic characteristics (age, sex, highest level of education completed) and duration of the chronic pain condition.

Results: 367 chronic pain patients were retrospectively identified and 339 were included in analyses, with 44% having a family member with chronic pain. Pain severity, pain interference, pain catastrophizing, and depression scores did not significantly differ between those with and without a family member with chronic pain, and there were no significant differences according to type of family member. There were differences amongst the subgroups in the type of specialists seen (Chi-square value = 9.51, $p < 0.05$) with the highest proportion of those seeking alternative therapies among those who have a child or other family with chronic pain. Having a family member with chronic pain, particularly close members (e.g. child or spouse), was also associated with increased hospital admissions for that individual ($H(4) = 11.184$, $p < 0.05$).

Discussion: Having shared chronic pain experiences with a family member may influence pain-related healthcare utilization (e.g. medication use, seeking alternative specialists and therapies, hospital admissions). Based on the trends observed, the type of familial relationship may play a key role. Determining the impact that various familial relationships have on healthcare utilization will allow for the development of targeted interventions catered towards families and will ascertain whether differences in use translate to differences in healthcare services satisfaction and/or treatment outcomes.

REFERENCES:

1. Cardol M, van den Bosch WJHM, Spreeuwenberg P, Groenewegen PP, van Dijk L, de Bakker DH: All in the Family: Headaches and Abdominal Pain as Indicators for Consultation Patterns in Families. *Annals of Family Medicine* 4(6):506-511, 2006
2. Che X, Cash R, Ng SK, Fitzgerald P, Fitzgibbon BM: A Systematic Review of the Processes Underlying the Main and the Buffering Effect of Social Support on the Experience of Pain. *Clinical Journal of Pain* 34(11):1061-1076, 2018
3. Kraljevic S, Banozic A, Maric A, Cosic A, Sapunar D, Puljak L: Parents' pain catastrophizing is related to pain catastrophizing of their adult children. *International Journal of Behavioural Medicine* 19(1):115-119, 2012
4. Mann EG, Johnson A, VanDenKerkhof EG: Frequency and characteristics of healthcare visits associated with chronic pain: results from a population-based Canadian study. *Can J Anaesth* 63(4):411-41, 2016
5. Meyler D, Stimpson JP, Peek MK: Health concordance within couples: A systematic review. *Social Science & Medicine* 64(11):2297-2310, 2007

Table 1. Sample characteristics

	Family member with CP	No family member with CP	Spouse with CP	Child with CP	Sibling with CP	Other family member
<i>n</i> (%) of total sample	149 (44.0%)	190 (56.0%)	17 (5.1%)	17 (5.1%)	36 (10.7%)	75 (22.4%)
Age (<i>M</i> , <i>SD</i>)	52.97 (14.61)	55.41 (14.48)	62.29 (8.84)	67.4 (10.40)	59.03 (11.66)	44.34 (12.31)
Sex						
Male	54 (36.2%)	82 (43.2%)	9 (52.9%)	5 (29.4%)	9 (25.0%)	31 (41.3%)
Female	95 (63.8%)	108 (56.8%)	8 (47.1%)	12 (70.6%)	27 (75.0%)	44 (58.7%)
Education						
High school or less	82 (55.8%)	99 (53.2%)	12 (70.6%)	11 (64.7%)	20 (55.6%)	38 (52.1%)
Some college or higher	65 (44.2%)	87 (46.8%)	5 (29.4%)	6 (35.3%)	16 (44.4%)	35 (47.9%)
Employment status						
Employed	68 (45.6%)	54 (28.6%)	10 (58.8%)	15 (88.2%)	22 (61.1%)	32 (42.7%)
Unemployed	81 (54.4%)	135 (71.4%)	7 (41.2%)	2 (11.8%)	14 (38.9%)	43 (57.3%)
Marital status						
Single	26 (17.8%)	32 (17.4%)	0 (0%)	1 (5.9%)	3 (8.3%)	22 (30.1%)
Married/common-law	93 (63.7%)	117 (63.6%)	15 (93.8%)	12 (70.6%)	18 (50.0%)	45 (61.6%)
Widowed/separated/divorced	27 (18.5%)	35 (19.0%)	1 (6.3%)	4 (23.5%)	15 (41.7%)	6 (8.2%)

Note. Values represent *n* (%); *M* = mean, *SD* = standard deviation; CP = chronic pain.

Continuous variables are represented as means and standard deviations and categorical groups as percentages.