

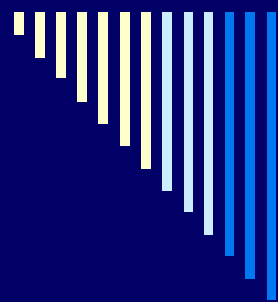


UNIVERSITY
OF MANITOBA

Pain Anxiety and Pain Catastrophizing in IBD

Lesley Graff PhD CPsych
Associate Professor
Clinical Health Psychology
Faculty of Medicine





IBD Research Team

Manitoba Cohort Study

*Principal Investigators**

Gastroenterology

Charles Bernstein* MD

Psychology

Lesley Graff* PhD

John Walker* PhD

Orthopedics

William Leslie* MD

BioStatistics

Lisa Lix* PhD

Epidemiology

James Blanchard* MD PhD

Teresa Longobardi PhD

Nutrition

Kathy Vagianos RD

Research Fellow/ Associate

Jason Ediger PhD

Ian Clara MA

Research Coordinators

Linda Rogala RN

Norine Miller RN

Trish Rawsthorne RN

Research Assistant

Rachel Carr BA



CPS disclosure statement

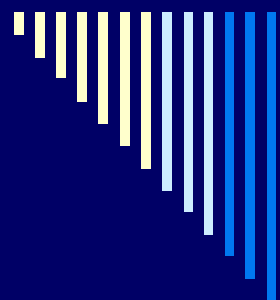
Authors listed below DO NOT have any financial or other relationship(s) to disclose

- Lesley Graff**
- John Walker**
- Lisa Lix**
- Linda Rogala**
- Norine Miller**
- Trish Rawsthorne**
- Ian Clara**

This author has disclosed the following financial or other relationships:

- Charles Bernstein**
Consultant to:
Abbott Canada
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No evident conflicts of interest have been identified.

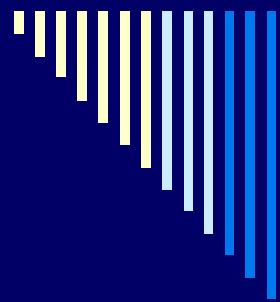


Overview

- Inflammatory bowel disease

- Pain anxiety and catastrophizing

- Manitoba IBD cohort study
 - Pain anxiety and catastrophizing in IBD
 - changes over time

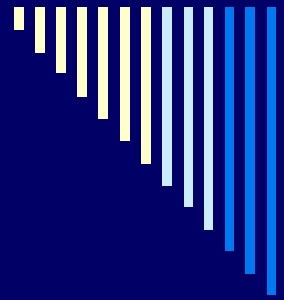


Inflammatory Bowel Disease

Clinical Features

- onset age 15-35, 2nd wave mid 40s or into 70s
- prevalence 4-5 per 1000
- symptoms diarrhea pain bleeding weight loss fatigue
- course fluctuating, unpredictable; 50% stabilize;
30% intermittent, some stabilizing; 20%
difficult to get under control

- treatment
 - medication 5-ASA, immunomodulators, steroids
 - surgery up to 80% will need surgery; CD recurring



Pain and Psychological Dimensions

□ Pain Anxiety

- fearful, emotional response to pain
- motivates behavioral avoidance
- predicts physical capacity performance
(Burns et al Pain 2000)

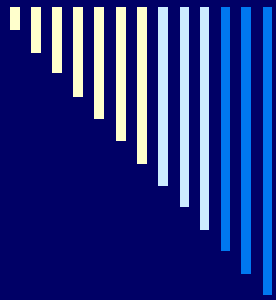
□ Pain Catastrophizing

- exaggerated negative orientation to pain
- magnification, rumination, helplessness
- strong predictor of pain-related disability



Manitoba IBD Cohort Study

- prospective longitudinal study
 - Phase I 2002-2007 CIHR \$1.2 million
 - Phase 2 2008-2013 CIHR \$1.5 million
 - identifying determinants of disease outcomes
 - population-based community sample
 - chart-confirmed diagnosis
 - \geq 18 years old & recent disease
-



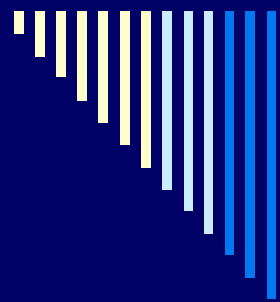
- interview and blood samples annually
- mail out survey semi-annually

- disease severity, bone density, psychological functioning, medication adherence, fatigue, nutrition, health care utilization, psychiatric comorbidity



Pain anxiety and catastrophizing substudy

- measurement at entry (0) and 24 months
 - 6 month disease activity index
 - Active = IBD symptoms occasionally to constant
 - Inactive = IBD symptoms rarely or was well
 - Pain Anxiety (PASS)
 - Pain Anxiety Symptoms Scale
 - Pain Catastrophizing (CSQ-C)
 - Coping Strategies Questionnaire –Catastrophizing
-



Psychological Functioning

Negative Functioning

distress:

Brief Symptom Inventory

health anxiety:

Health Anxiety Questionnaire

stress:

Cohen Perceived Stress Scale

Positive Functioning

mastery:

Mastery Scale

well-being:

Psychological Well-Being

Manifestations Scale

social support:

Multidimensional Scale of

Perceived Social Support

Personality:

NEO-Five Factor Inventory

Quality of Life:

IBDQ (disease specific QoL)



Sample description

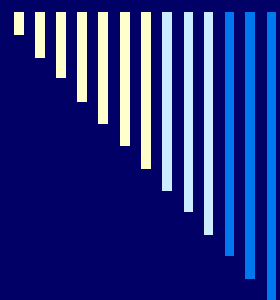
N=356 chart-confirmed IBD diagnosis

- 18-83 years old; mean 41 yrs
 - 59% women
 - 91% Caucasian
 - 66% employed FT or PT
 - 33% rural
-



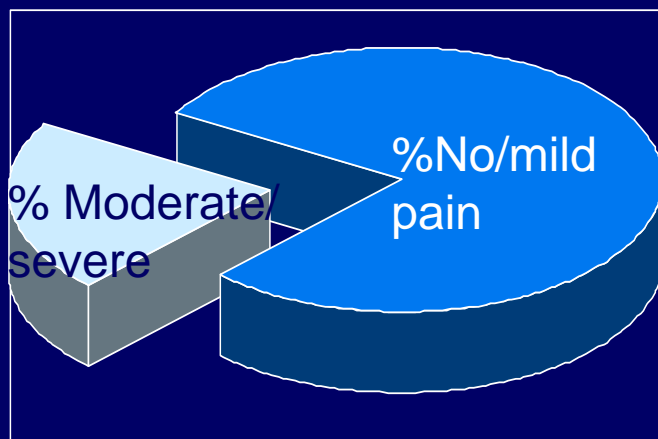
Disease features - baseline

<input type="checkbox"/> disease duration	M = 4 years
<input type="checkbox"/> disease subtype	
■ Crohn's disease	53%
■ Ulcerative colitis	47%
<input type="checkbox"/> hospitalized past year	14%
Past six months...	
■ inactive disease	30%
■ active disease	70%
■ missed some work	32%

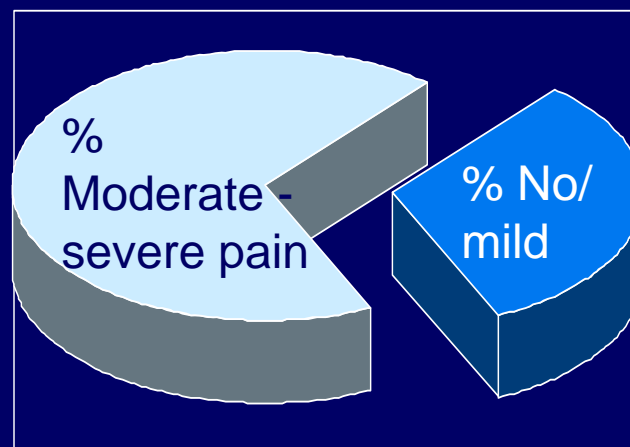


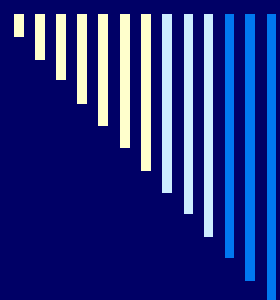
6 month indices of pain & disease

Inactive disease



Active disease

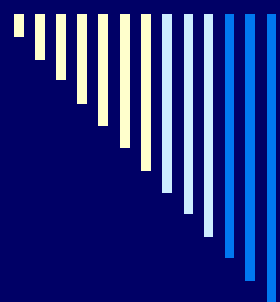




Levels of pain anxiety and catastrophizing in IBD at 0 months

	Inactive IBD n=103 M (sd)	Active IBD n=239 M (sd)
Pain Anxiety total	64.6 (28.5)	74.5 (29.2)**
Fearful appraisals	13.7 (8.0)	15.1 (8.7)
Cognitive anxiety	19.0 (8.2)	22.0 (9.2)*
Escape avoidance	19.4 (8.6)	21.0 (8.1)
Physical anxiety	12.6 (8.7)	16.4 (9.1)**
Catastrophizing	11.7 (4.8)	12.6 (4.3)

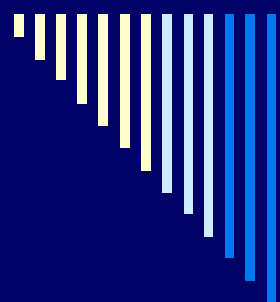
**p < .01; *p < .05



Pain anxiety & catastrophizing: correlations with negative psychological functioning

	Inactive IBD Pain Anxiety	Active IBD Pain Anxiety	Inactive IBD Catastrophizing	Active IBD Catastrophizing
distress	.53**	.43**	-.01	.15*
health anxiety	.42**	.58**	-.02	.18**
perceived stress	.39**	.41**	-.10	.03
Catastro- phizing	.07	.21**		

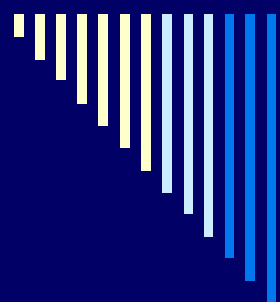
** $p < .01$; * $p < .05$



Pain anxiety & catastrophizing: correlations with positive psychological functioning

	Inactive IBD Pain Anxiety	Active Pain Anxiety	Inactive IBD Catastrophizing	Active Catastrophizing
well being	-.39**	-.35**	.12	.02
mastery	-.29**	-.38**	.10	-.01
social support	-.18	.00	.11	.07
quality of life	-.43**	-.41**	-.01	-.09

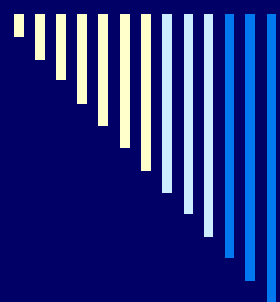
** p < .01



contacts with physicians in previous 12 months

	Active Disease M (SD)	Inactive Disease M (SD)
High ¹ Pain Anxiety	13.2 (15.1)	6.3 (6.2)
Low ¹ Pain Anxiety	7.2 (6.2)	5.6 (8.8)

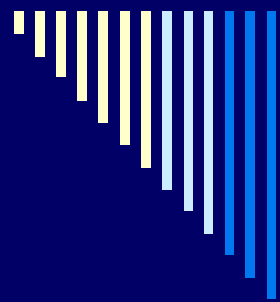
¹ median split; pain anxiety $F=6.7$, $p = .01$; disease $F=10.6$ $p = .001$ **P_{AxD} $p < .05$**



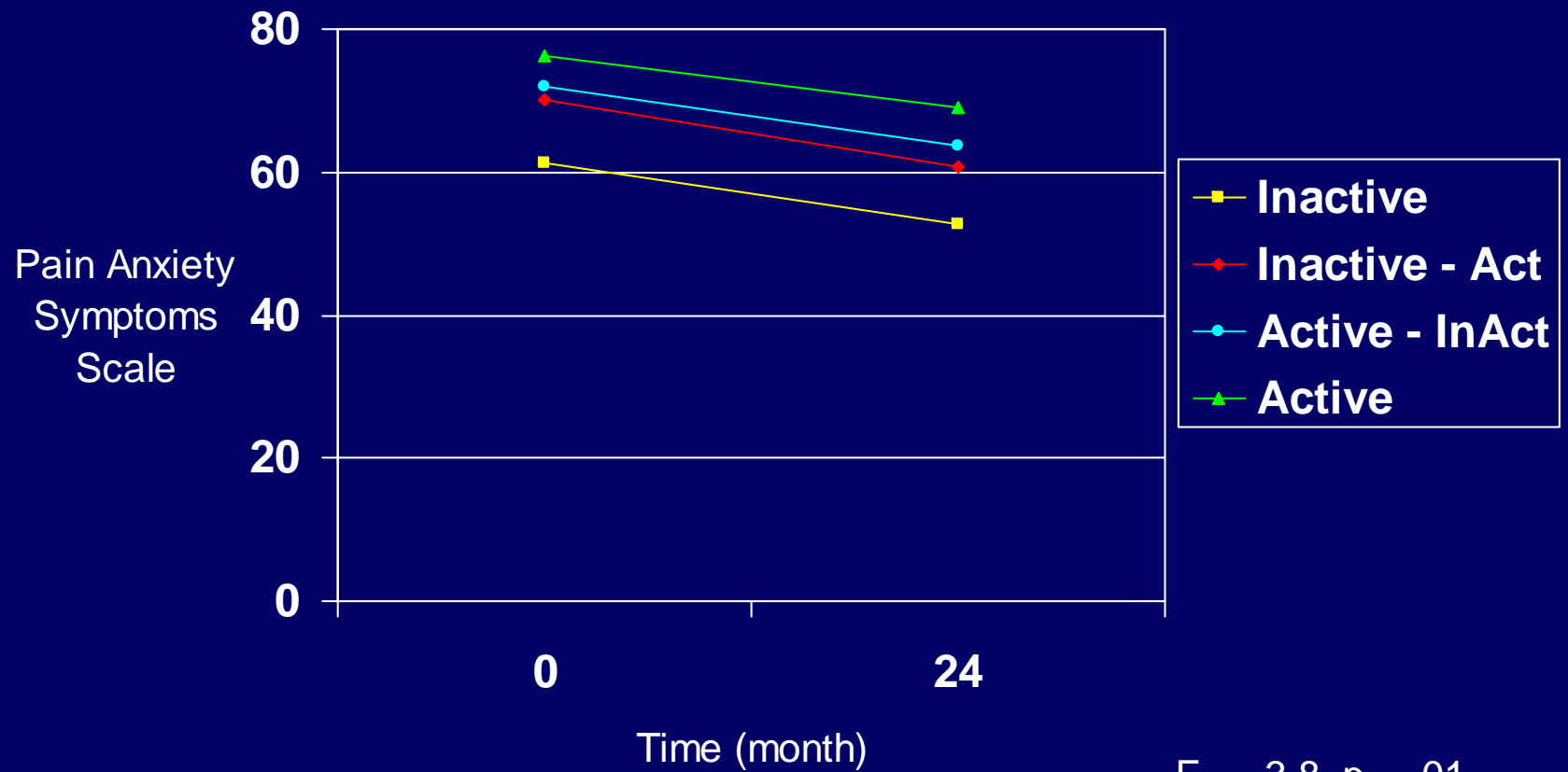
contacts other health providers in previous 12 months

	Active disease M (SD)	Inactive disease M (SD)
High ¹ pain anxiety	9.4 (14.9)	9.2 (18.5)
Low ¹ pain anxiety	3.7 (6.7)	3.1 (7.8)

¹ median split; pain anxiety $F=16.2$ $p<.001$

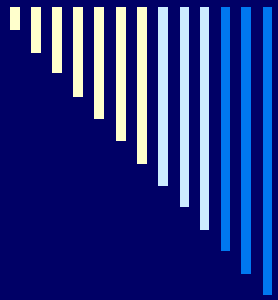


Pain anxiety over time and IBD disease pattern

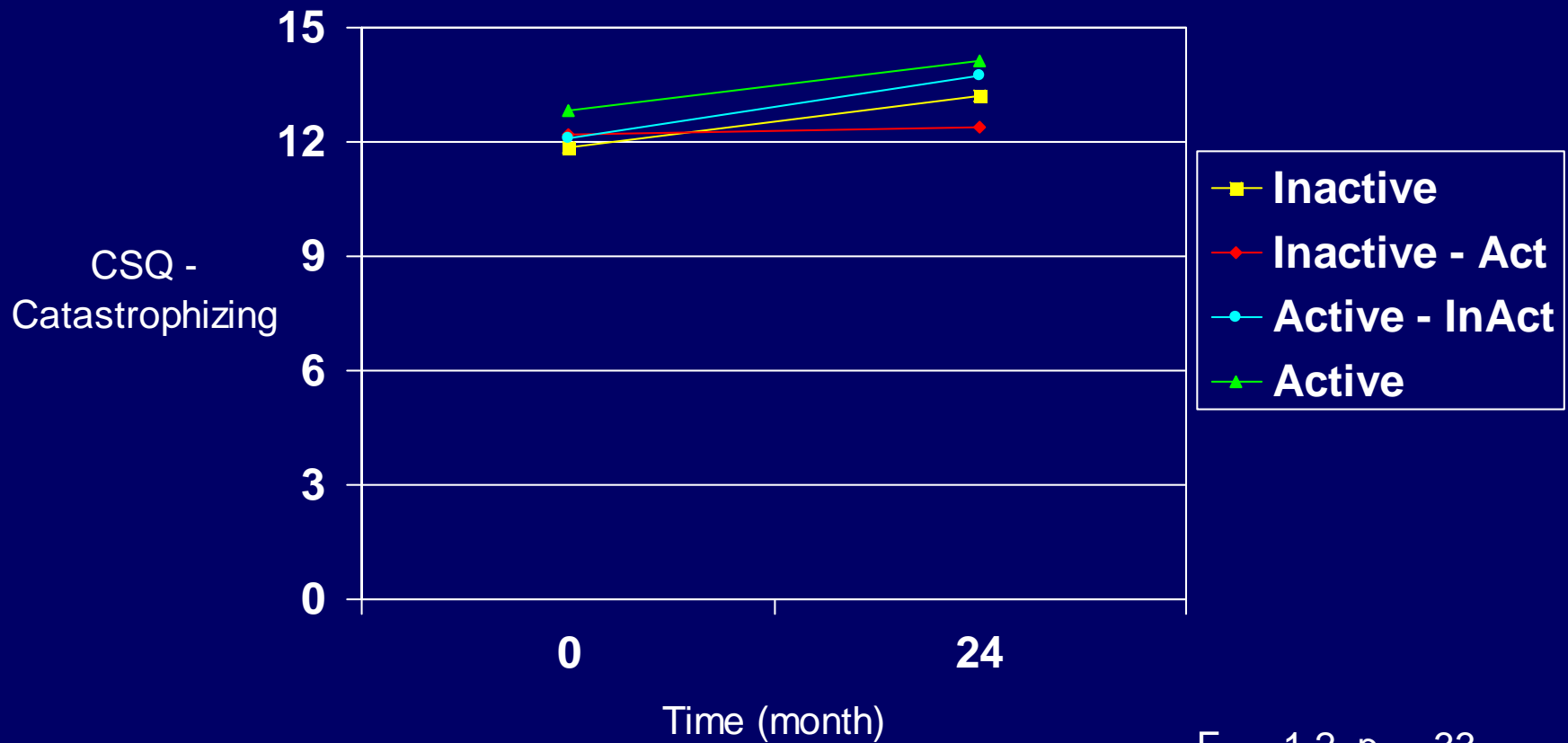


$F_D = 3.8, p = .01$

$F_T = 34.6, p < .01$



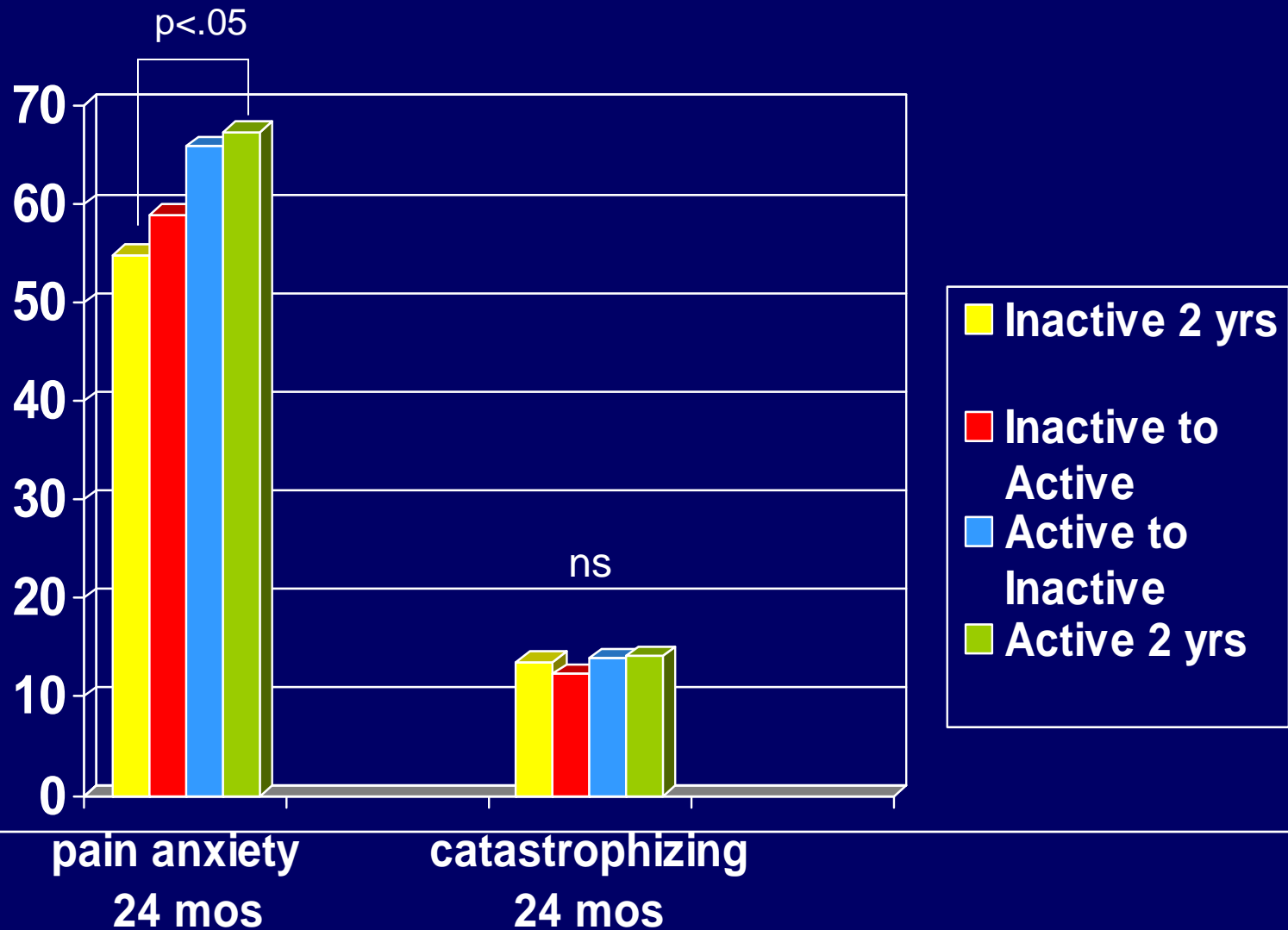
Catastrophizing over time and IBD disease pattern

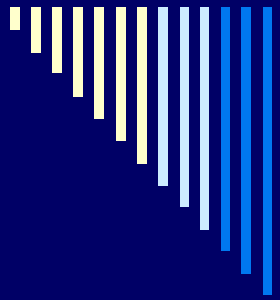


$F_D = 1.2, p = .33$

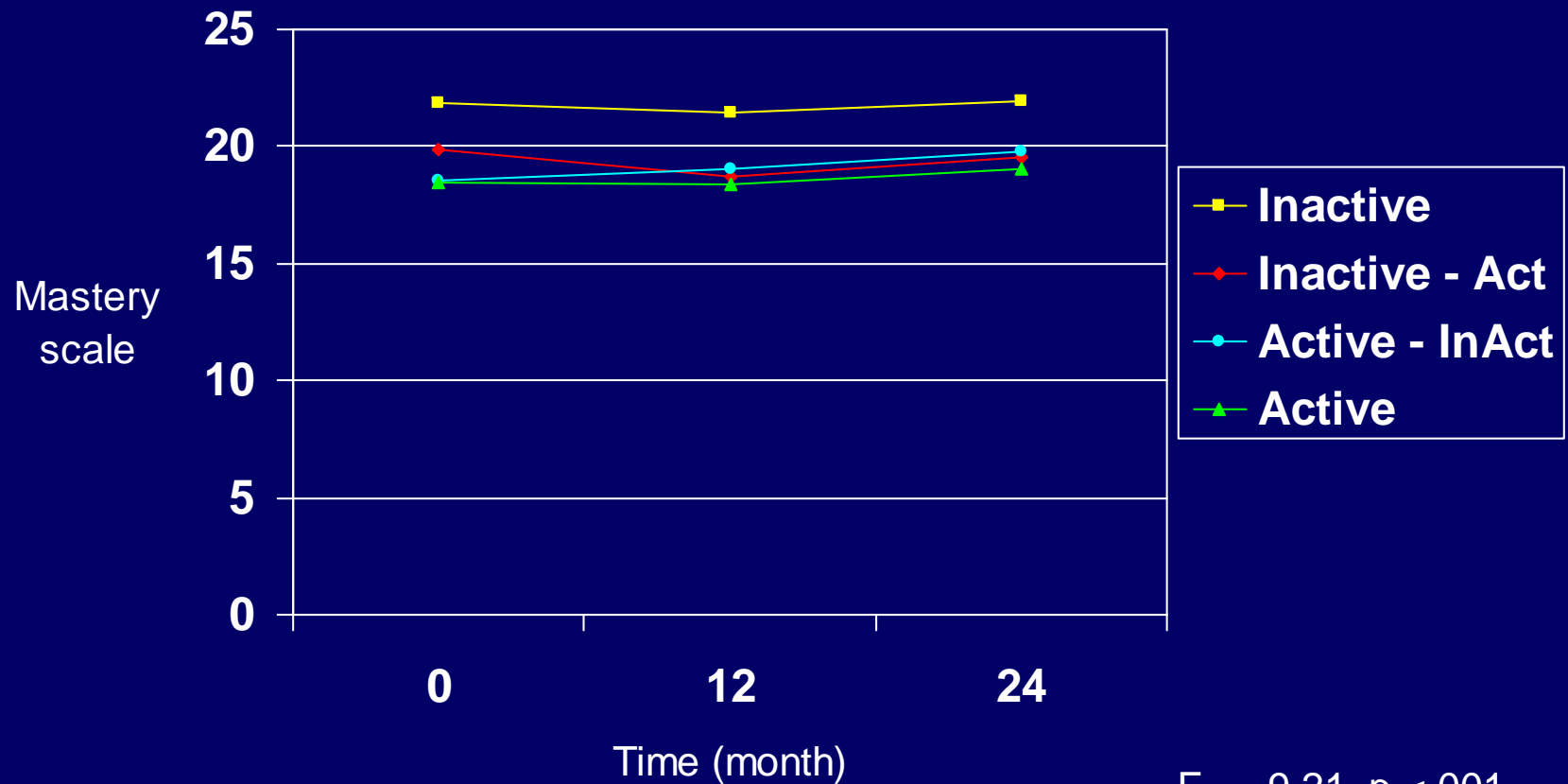
$F_T = 18.4, p < .01$

Pain anxiety and catastrophizing: 2 year disease activity pattern





Mastery over time and IBD disease pattern



$F_D = 9.21, p < .001$

$F_T = 5.79, p = .01$



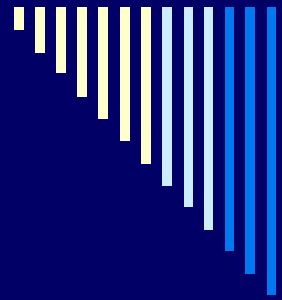
Conclusions

- ❑ level of pain anxiety and pain catastrophizing similar to other clinical populations
 - ❑ little association of catastrophizing to other psychological functioning domains
 - ❑ pain anxiety higher with active disease; pain catastrophizing similar regardless of disease status
 - ❑ higher pain anxiety related to greater health care contacts
 - ❑ pain anxiety decreased over time; those with prolonged active disease maintain higher anxiety; mastery improved modestly; catastrophizing worsened modestly
-



Thank you





Sample Items

□ Pain anxiety

- When feel pain afraid of dying
- Pain causes heart to race
- Avoid important activities when pain

□ Pain catastrophizing

- Pain is awful and overwhelms me
- Pain is terrible, never going to get any better

