

Longitudinal Assessment of

**Empathy,
Cynicism, and
Stress**

in Medical Students

Rollin Nagel, PhD
Catherine Lucey, MD
Daniel Clinchot, MD
Judith Westman, MD
David Way, MEd

Ohio State University College of Medicine



Background

- Concerns that empathy may decrease during medical school leading to cynicism and sense of entitlement (Coulehan, 2001; Branch, 2000)
- Specialty choice affected by cynicism and loss of compassion (Gill, 2001; Newton, 2000); also desire to limit personal distress (Merrill, 1998)
- More burnout in advanced years of training (Dyrbye, 2006)

Problems:

- *Lack of information about cynicism, burnout, and empathy during medical school matriculates.*
- *Are students empathic and humanistic during their first two years of school and become cynical after exposure to overtired and overworked residents and faculty?*
- *Do cynicism and lack of empathy have their roots during the preclinical years?*

Purpose:

Longitudinal assessment

Measure (the level of empathy, cynicism, burnout, stress, and other constructs) as students progress through medical school.

Methods:

- *Solicit on-line (SurveyMonkey) assessments of OSU medical students using end-of-year (EOY) surveys and at entry*
- *Use assessment instruments with previously demonstrated reliability and validity*
- *Currently two years of data from three classes at OSU have been collected*

Instruments

- ***Interpersonal Reactivity Index (Davis, 1980)***
- ***Maslach Burnout Inventory Student Survey (Schaufeli, et al. 2002)***
- ***Perceived Stress Scale (Cohen & Williamson, 1988)***

Interpersonal Reactivity Index

- **Perspective Taking**
- **Empathic Concern**
- **Personal Distress**
- **Cognitive Fantasy**

Maslach Burnout Inventory Student Survey

- **Exhaustion**
- **Cynicism**
- **Professional Efficacy**

Perceived Stress Scale

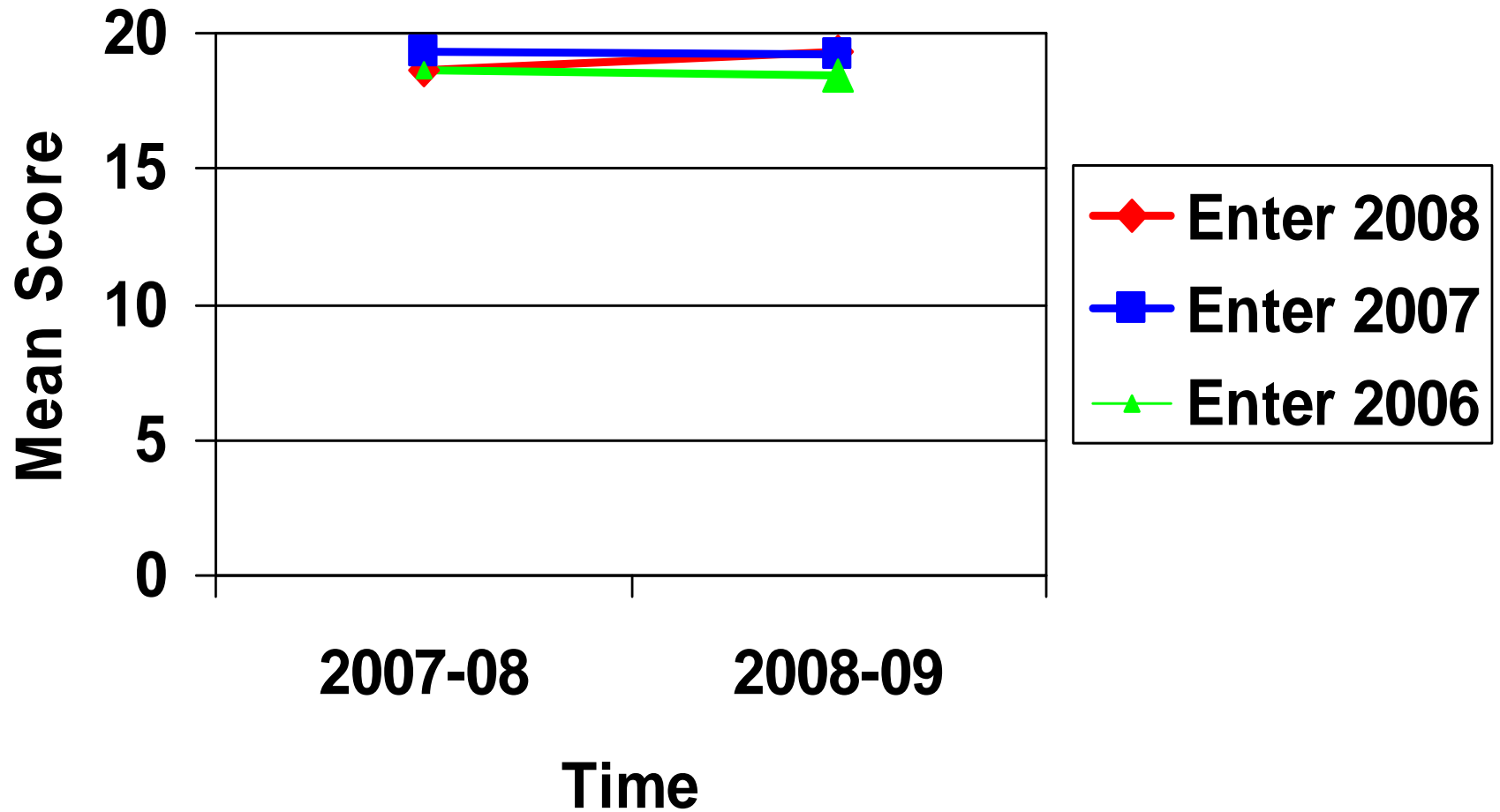
- (7-point scale from “Never” to “Very Often”)
- Extent to which situations in an individual’s life are assessed as stressful during the past month



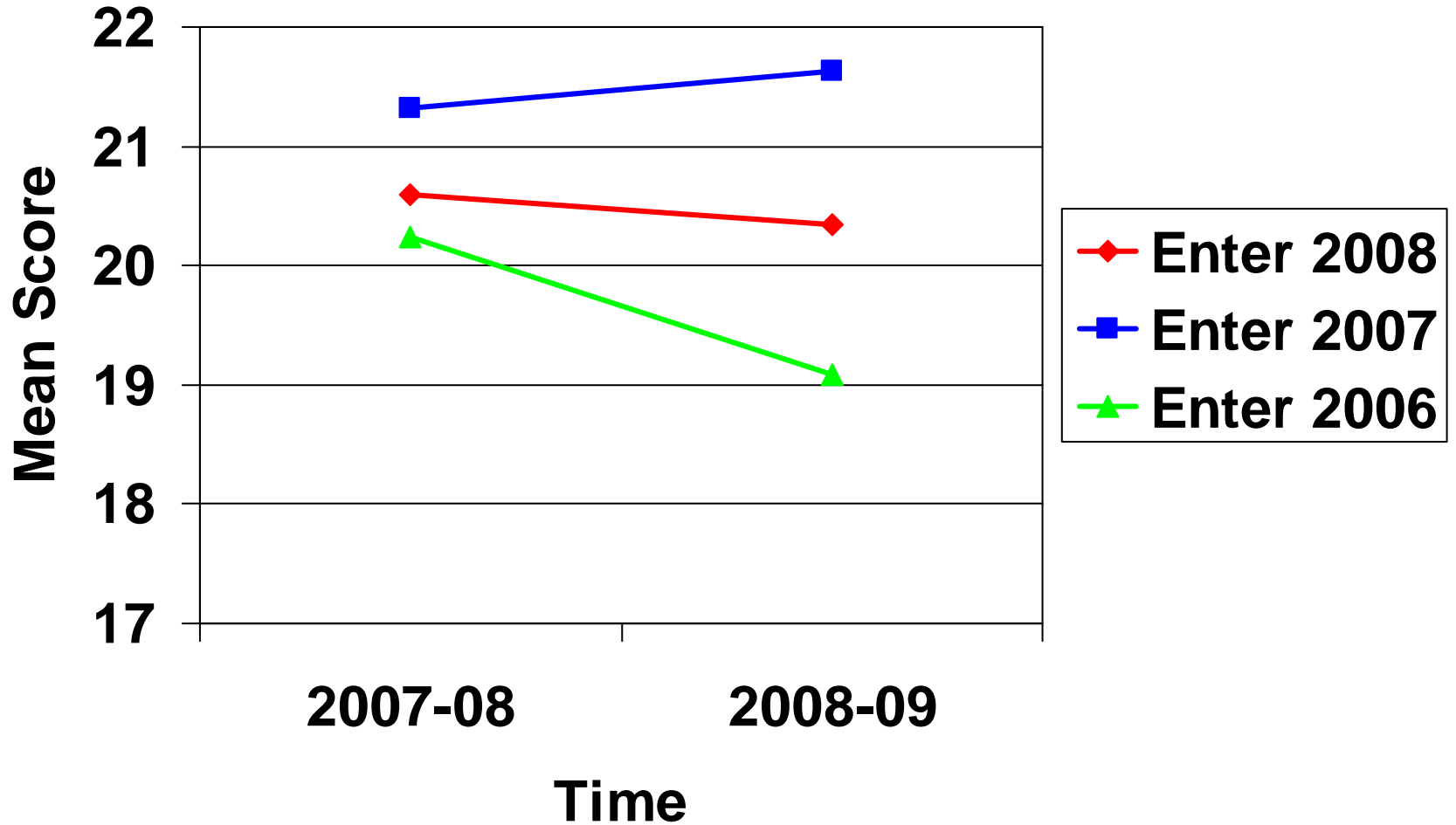
Comparisons of Consented (Data Collected) by Class and Year

	2007-08	2008-09	Both
Enter 2009		178 (200) Baseline	
Enter 2008	158 (178) Baseline	113 (171) End of 1st	97 (166)
Enter 2007	124 (138) End of 1st	98 (157) End of 2nd	66 (108)
Enter 2006	76 (99) End of 2nd	98 (140) End of 3rd	46 (78)
Enter 2005	76 (99) End of 3rd		

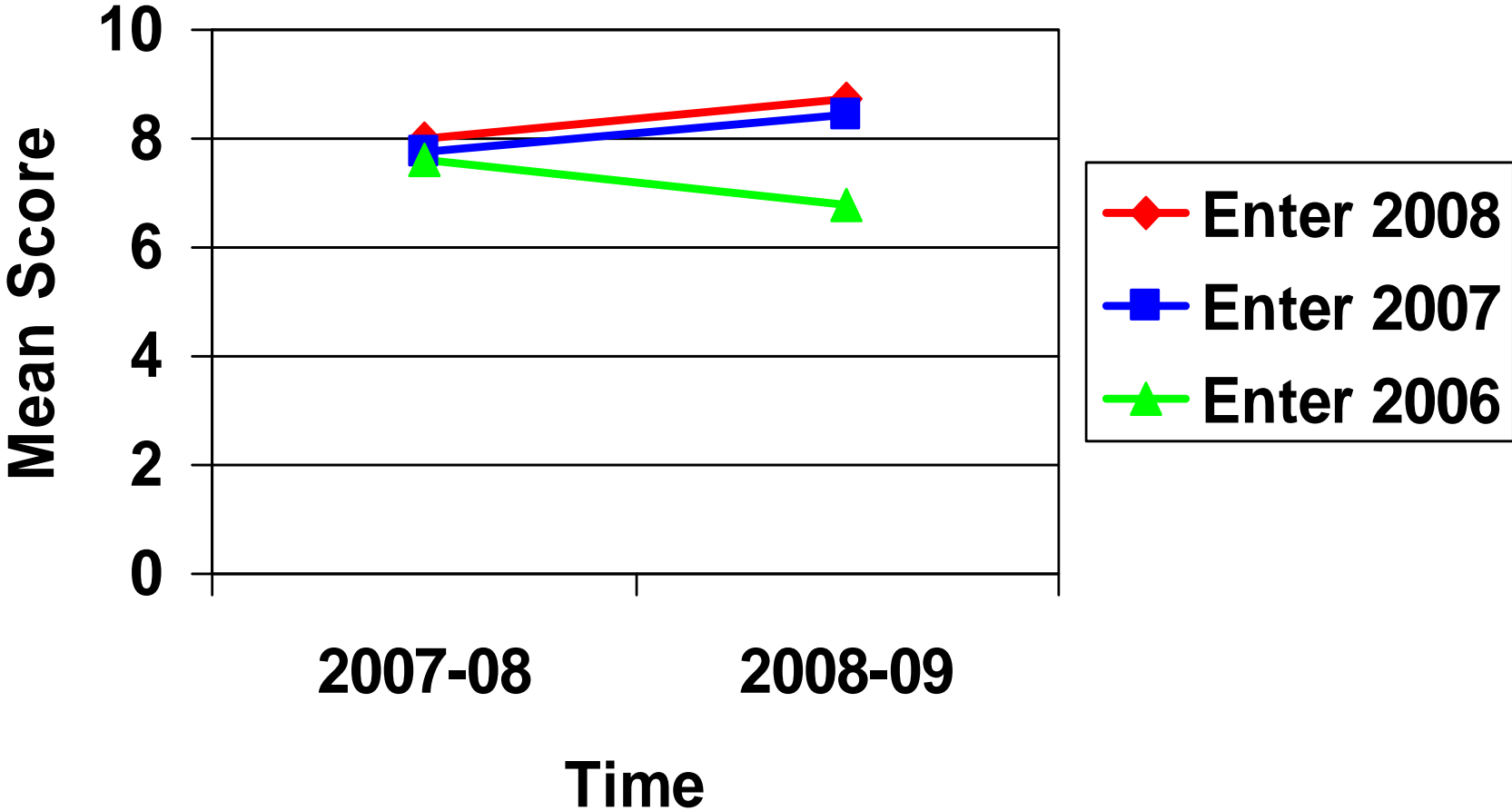
IRI Perspective Taking



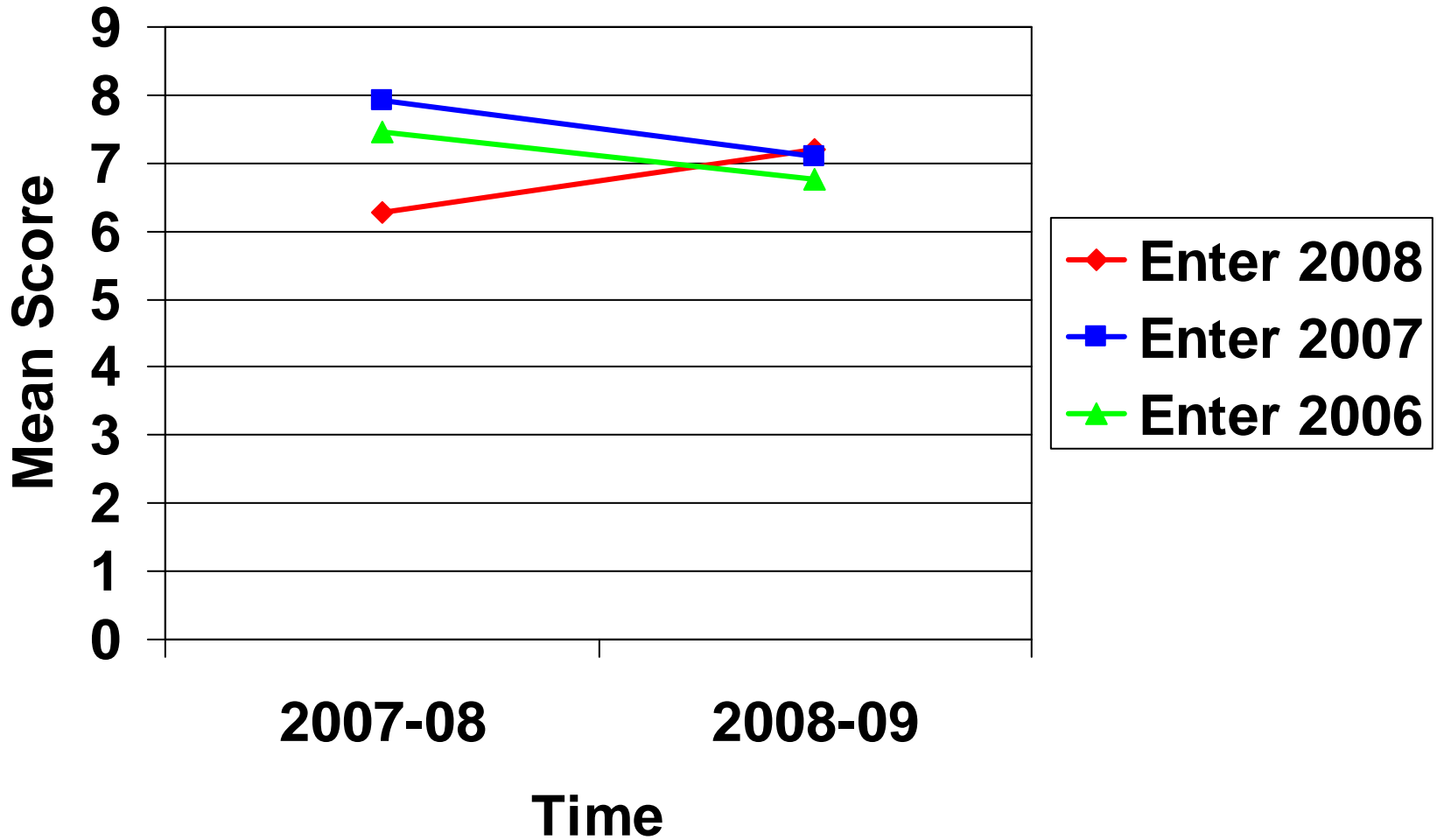
IRI Empathic Concern



IRI Personal Distress

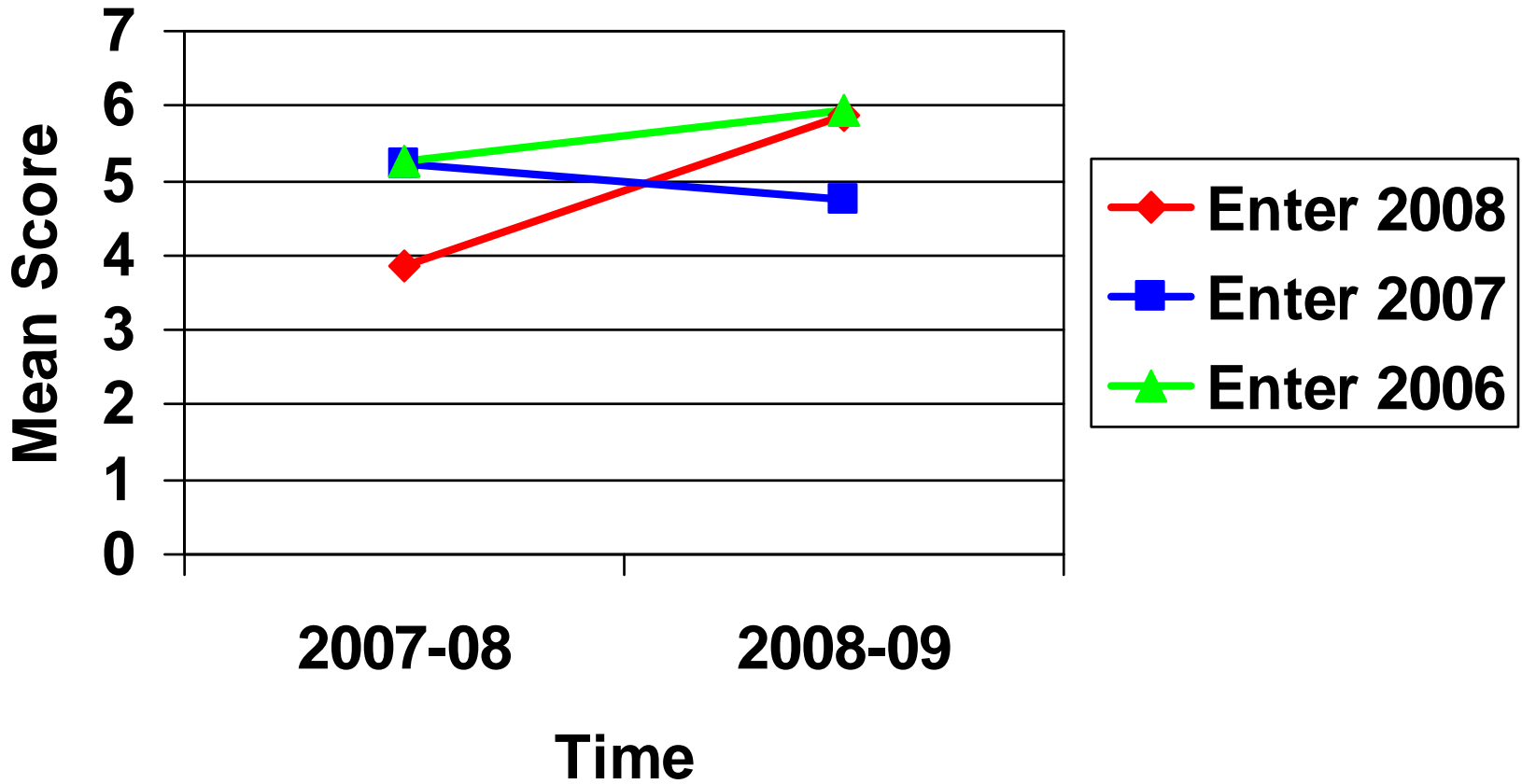


MBI Emotional Exhaustion

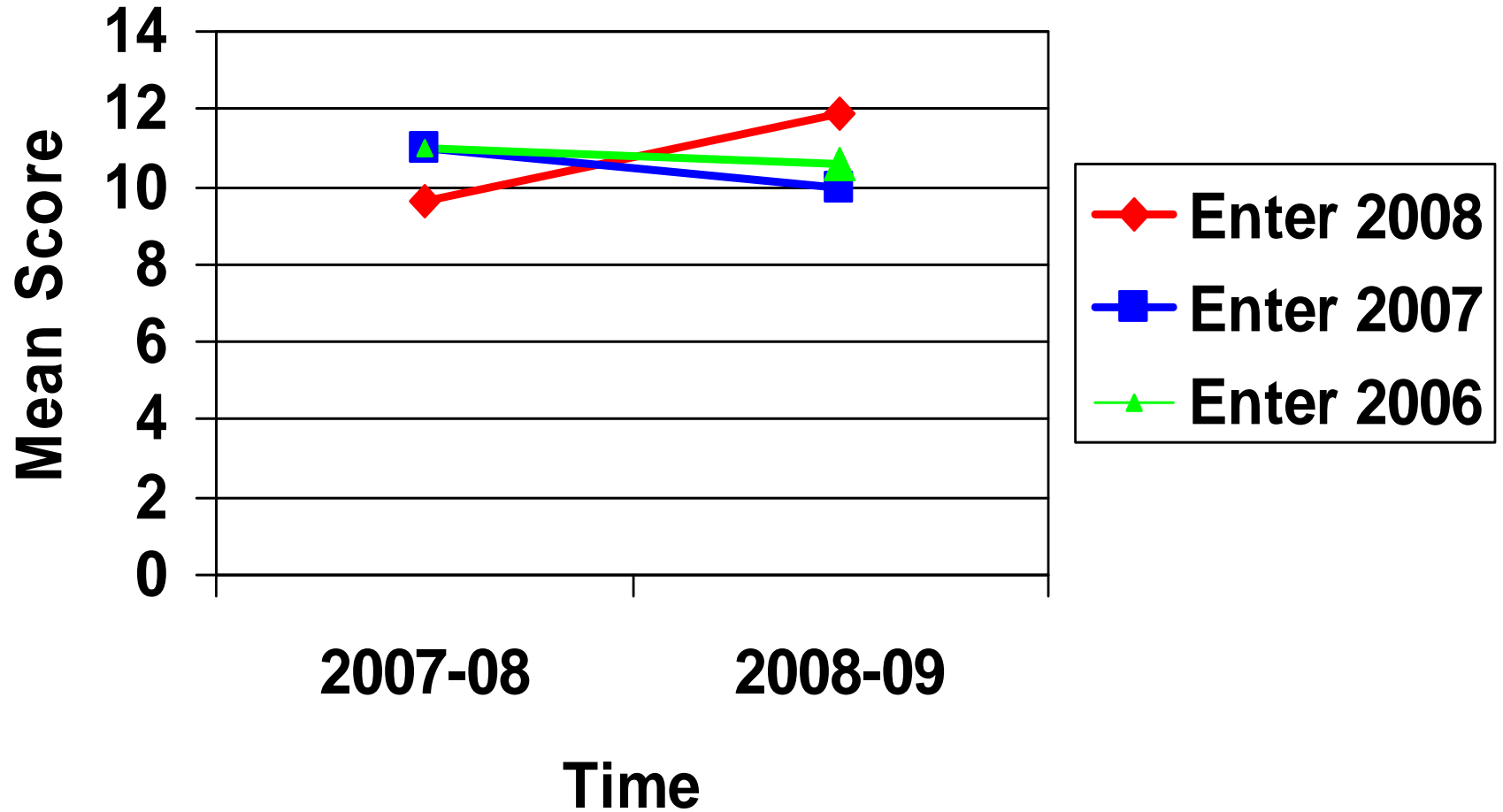




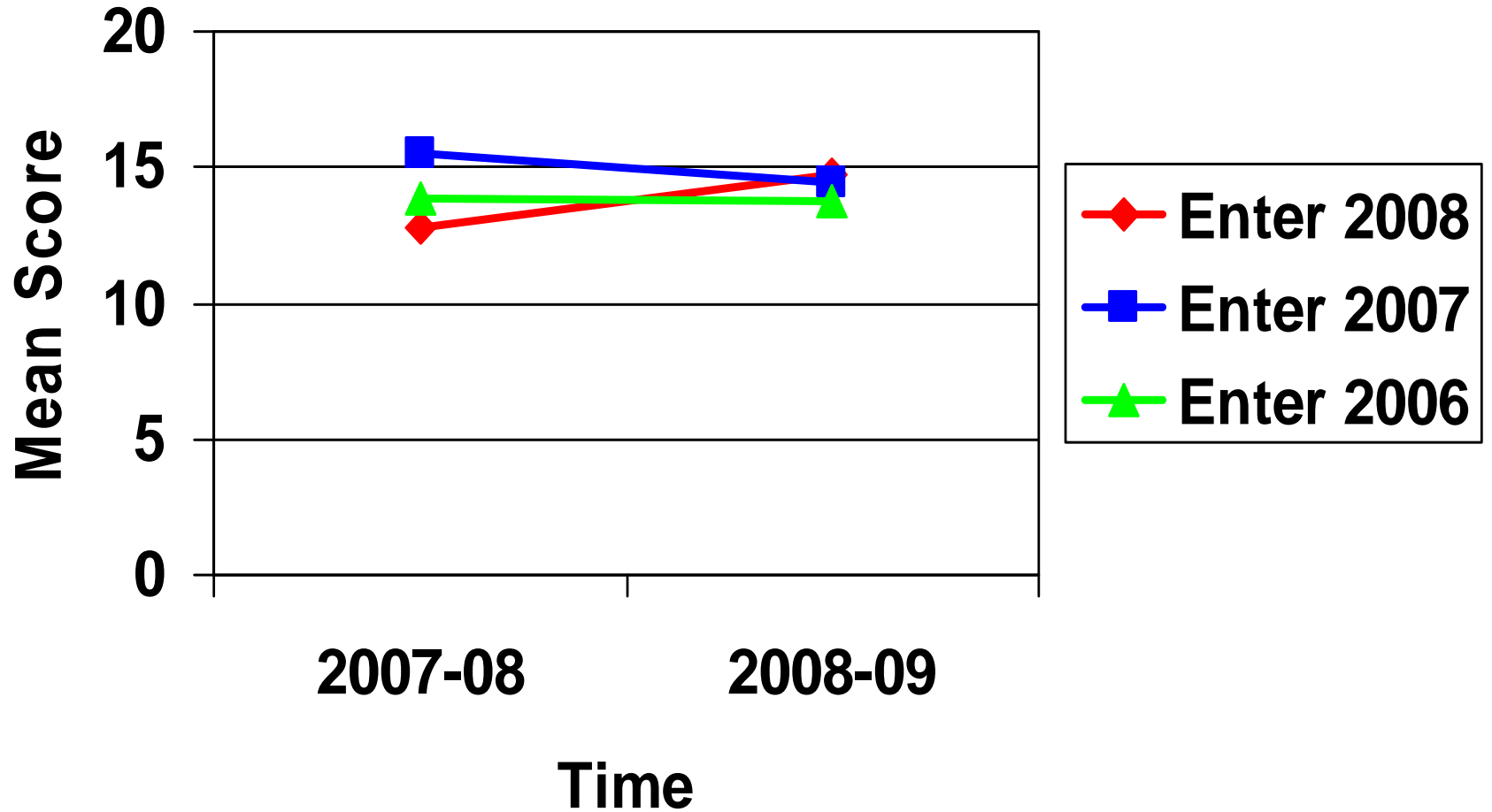
MBI Cynicism



MBI Professional Efficacy



Perceived Stress



Summary 1

IRI

- **Perspective Taking**
 - No differences: Time or Classes
- **Empathic Concern**
 - 2006 (during 3rd yr): sign drop
 - 2008-09: EO2 higher than EO1 or EO3
- **Personal Distress**
 - 2008 (during 1st yr) & 2007 (during 2nd): sign inc
 - 2008-09: EO3 lower than EO1



Summary 2

MBI

- **Exhaustion**

- 2008 (during Y1): sign inc
- 2007 (during Y2): sing dec
- 2007-08: Baseline lower than EO1 or EO2

- **Cynicism**

- 2008(during Y1): sign inc
- 2007-08: Baseline lower than EO1 or EO2

- **Professional Efficacy**

- 2008(during Y1): sing inc
- 2008-09: EO1 higher than EO2

Summary 3

Perceived Stress

- 2008 (during Y1): sign inc
- 2007-08: Baseline lower than EO1

Discussion

- Very Preliminary Results: two years and 3 classes
- Negative findings:
 - Increase in Exhaustion, Perceived Stress and Cynicism (1st year),
 - Increase in Personal Distress (1st & 2nd years)
 - Drop in Empathic Concern during 3rd year
- Exhaustion and Cynicism lowest for Baseline; Perceived Stress lower at Baseline than EO1



Medical
Center