Resident attrition: Identifying those at risk

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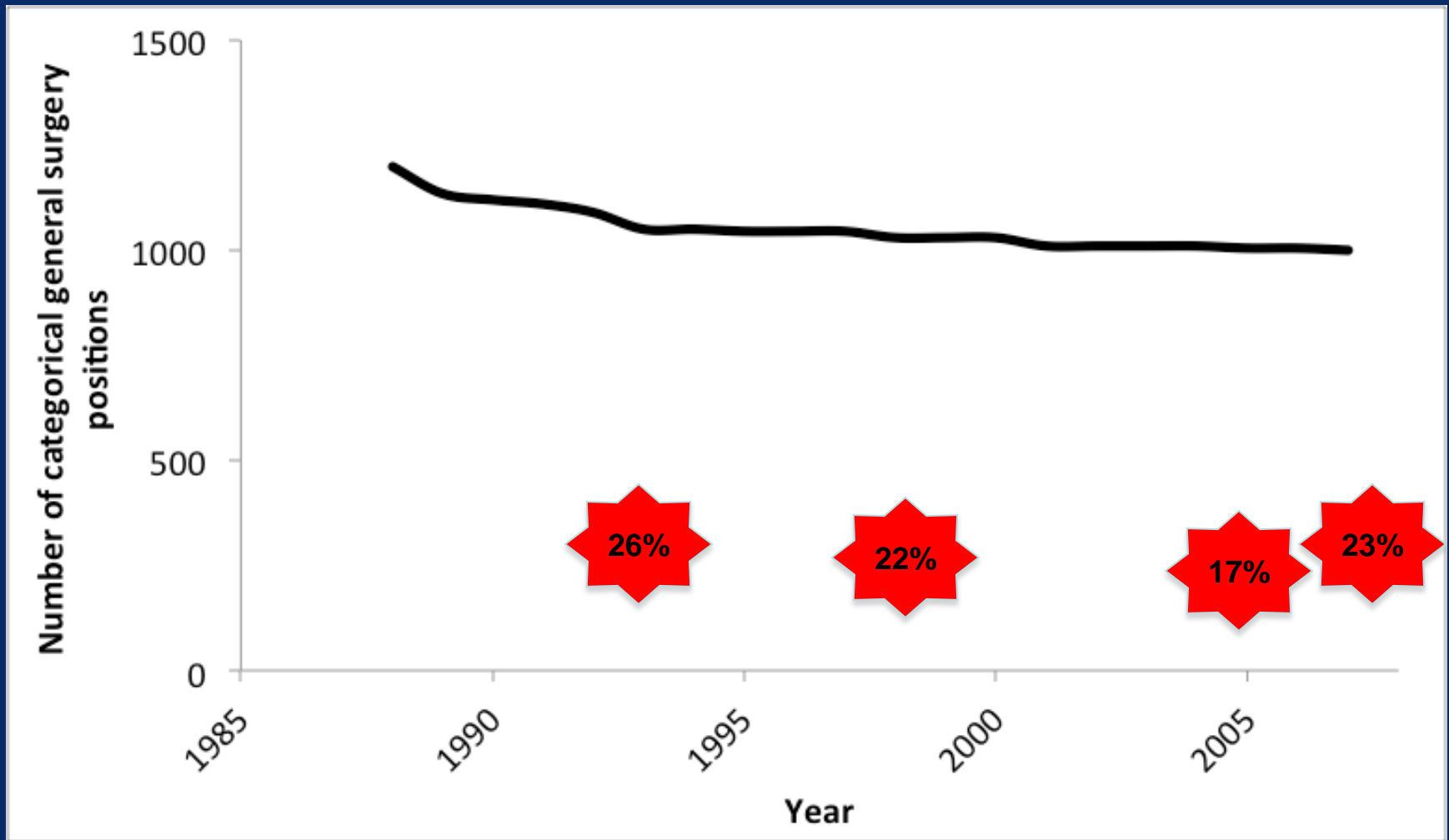
Goals and Objectives

- Attrition: The scope of the problem

- Background and introduction: Grit
  - What is it?
  - Why is it important?

- Study design and preliminary results

- Potential intervention strategies

- An invitation to participate

Resident attrition

Halsted
1904

Churchill
1940's

- Most programs converted into a rectangular model in the 1980s.

- RRC formally eliminates pyramidal programs in 1996.

Bell et al., Surg Clin North Am. 2007

Resident attrition

Aufses et al., Am J Surg 1998
Kwakwa et al., J Am Coll Surg 1999
Dodson et al., Curr Surg 2005
Naylor et al., Arch Surg 2008

Identified risk factors

- Repeatedly demonstrated
  - Post-graduate year: PGY1 and 2 at higher risk
  - ABSITE performance: but with varying cutoff

- Evidence inconsistent
  - Medical student grades, AOA status, USMLE score
  - Lack of history of high-performance achievements
  - Age
  - Gender
  - Programs "not in the south"

What can we learned from recent surveys?

- High program-to-program variability

- Many risk factors are non-modifiable

- Effective support strategies are unknown

- Most commonly cited reason for leaving: "lifestyle"

- Residents will report that they have considered leaving their training program if asked

- A common conclusion: Non-academic factors are likely most important

Sullivan et al., J Am Coll Surg. 2012

Redefining what is necessary for achievement

"One of the most significant contrasts among the factors residing within the individual is that between *capacity* and *industry*"
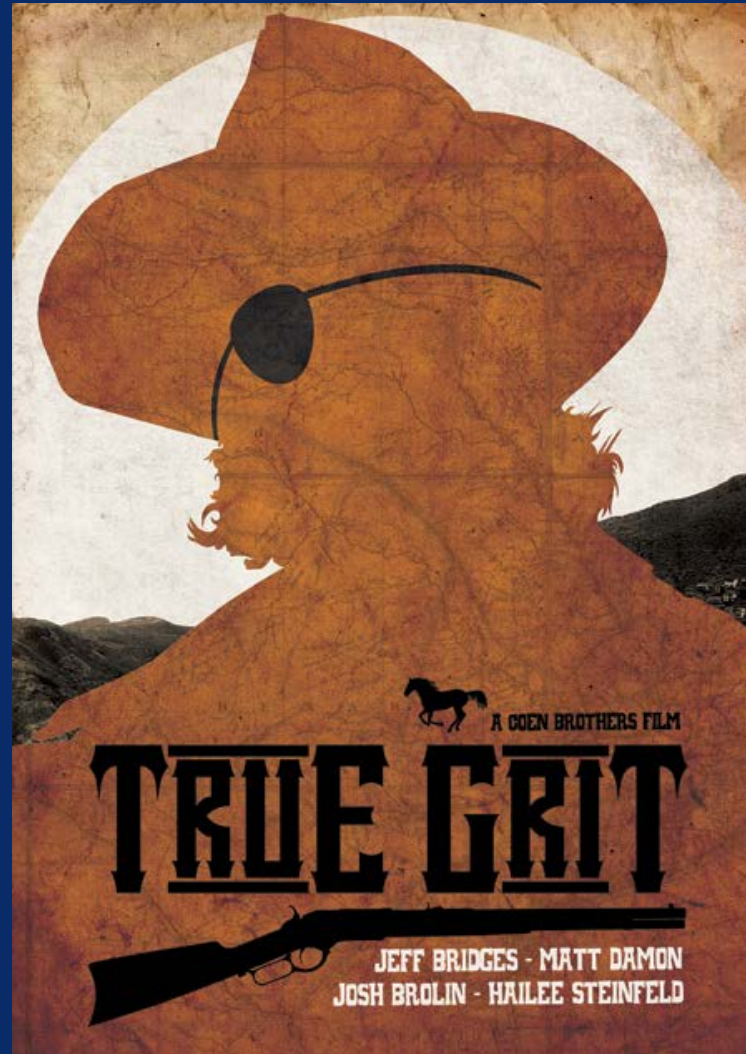
Clark Hull (1928)
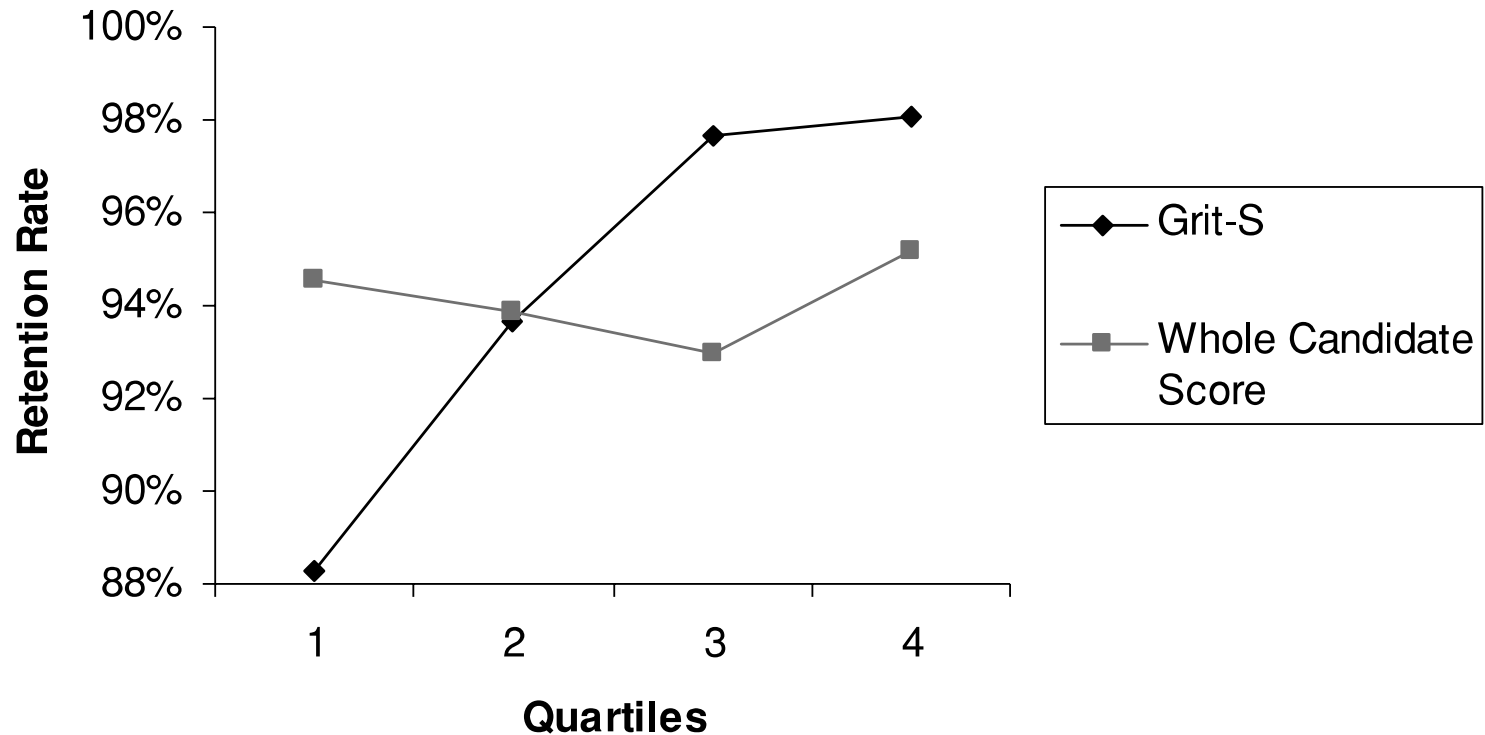
301 Geniuses

Motivation
Determination
Persistence

Catherine Cox

Perseverance and passion for long-term goals

United States Military Academy

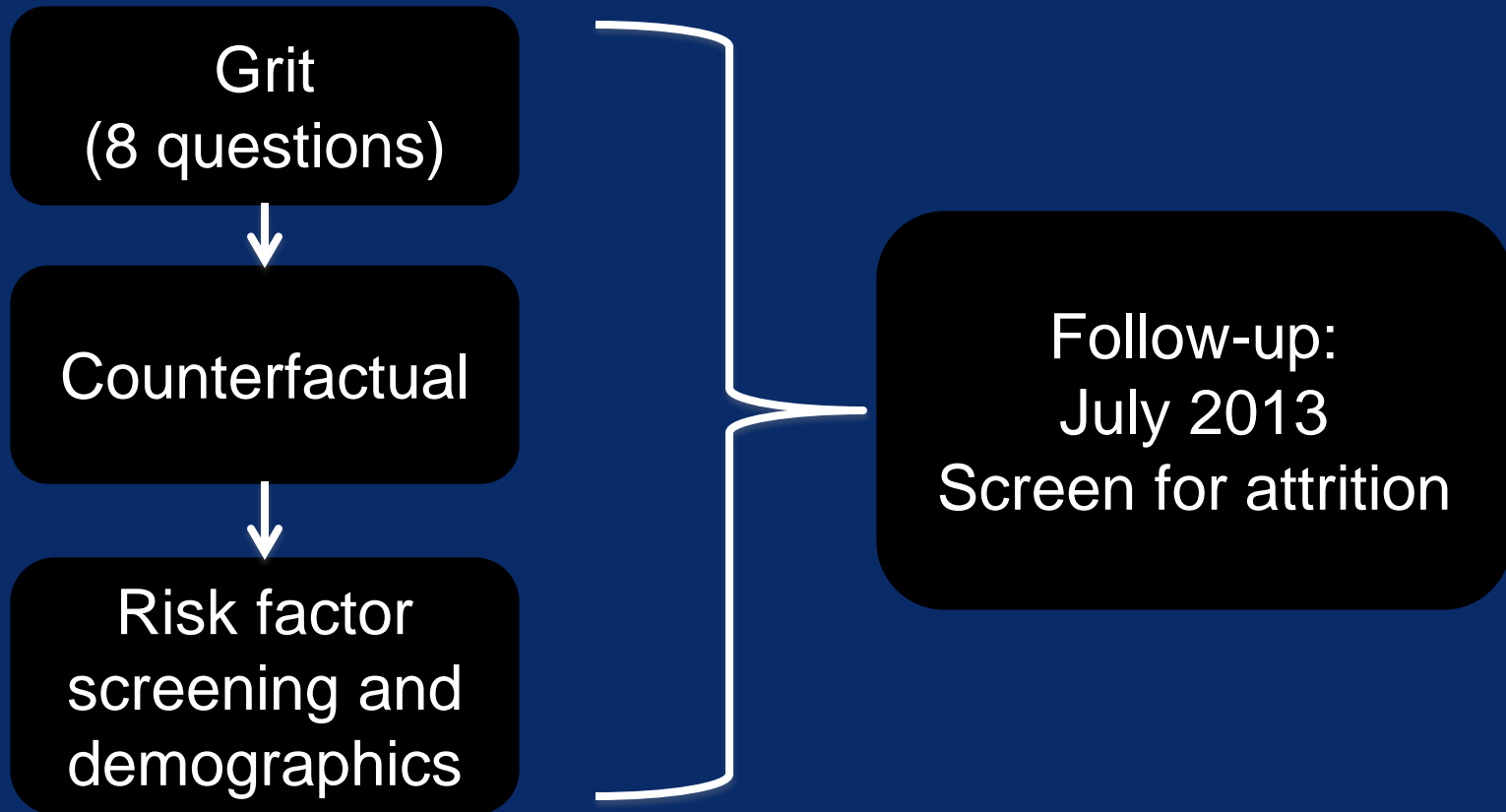Duckworth and Quinn. J Pers Assess. 2009

Short grit scale

1. New ideas and projects sometimes distract me from previous ones.
2. Setbacks don't discourage me.
3. I have been obsessed with a certain idea or project for a short time but later lost interest.
4. I am a hard worker.
5. I often set a goal but later choose to pursue a different one.
6. I have difficulty maintaining my focus on projects that take more than a few months to complete.
7. I finish whatever I begin.
8. I am diligent.

Study design
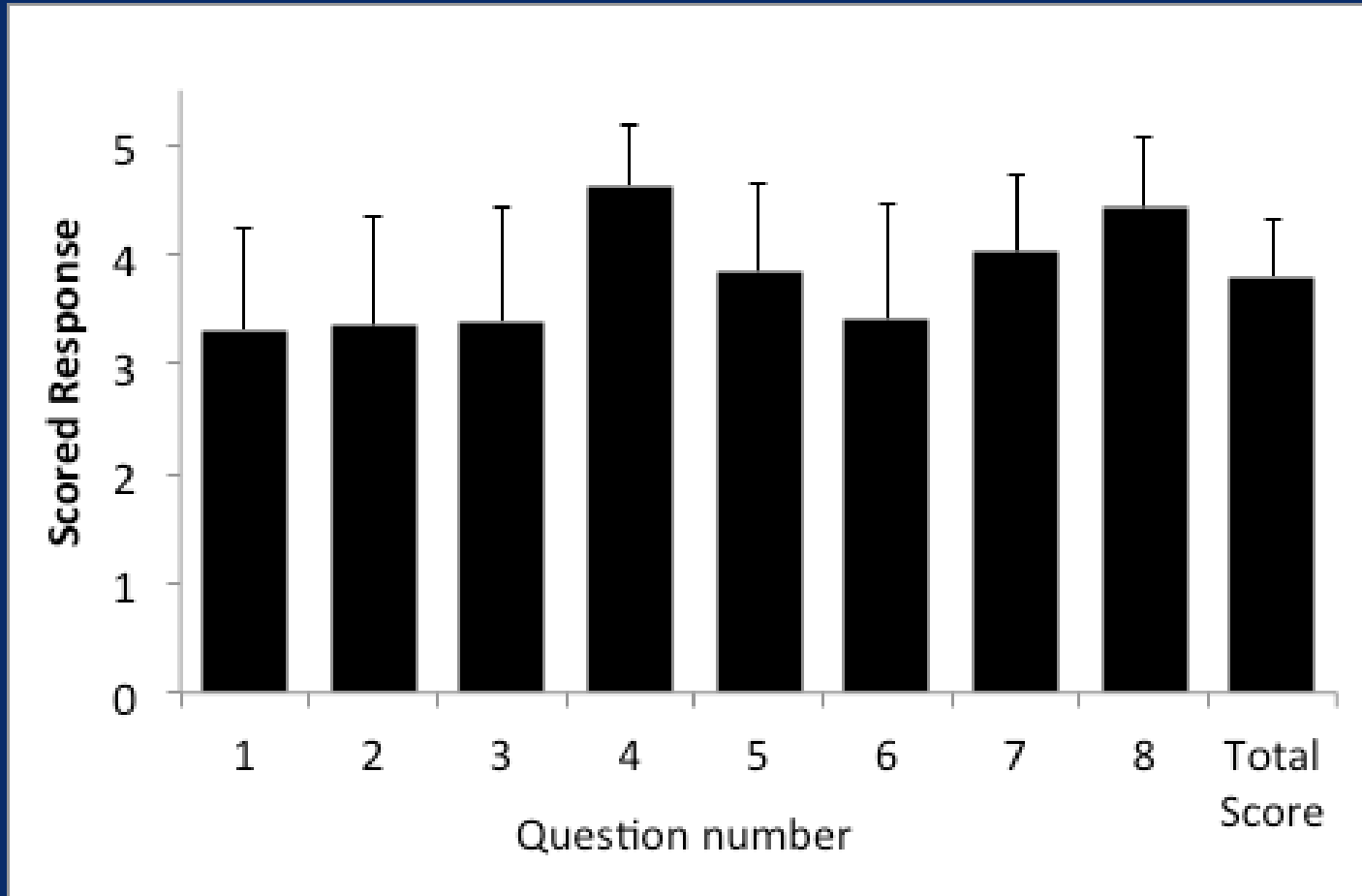
Prospective, multi-center, blinded survey administration

Grit
(8 questions)

↓

Counterfactual

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Risk factor
screening and
demographics

Follow-up:
July 2013
Screen for attrition

Grit

↓

Counterfactual

↓

Risk factor screening and demographics

1. Vividly imagine and describe an alternative career path

2. Is this path: worse, better, about the same, or "actually I couldn't really vividly imagine another possibility."

1. Are you satisfied with your experience?
2. Do you feel you are a good fit?
3. Is your family or significant other satisfied?
4. Have you considered leaving training?
5. What types of support are most valuable?
6. What are your plans following residency?
7. Are you satisfied with your anticipated lifestyle as a surgeon?
8. Describe your residency program?
9. Current post-graduate year?
10. Gender?
11. ABSITE score?
12. Plans on research during residency?

Can we stratify residents?
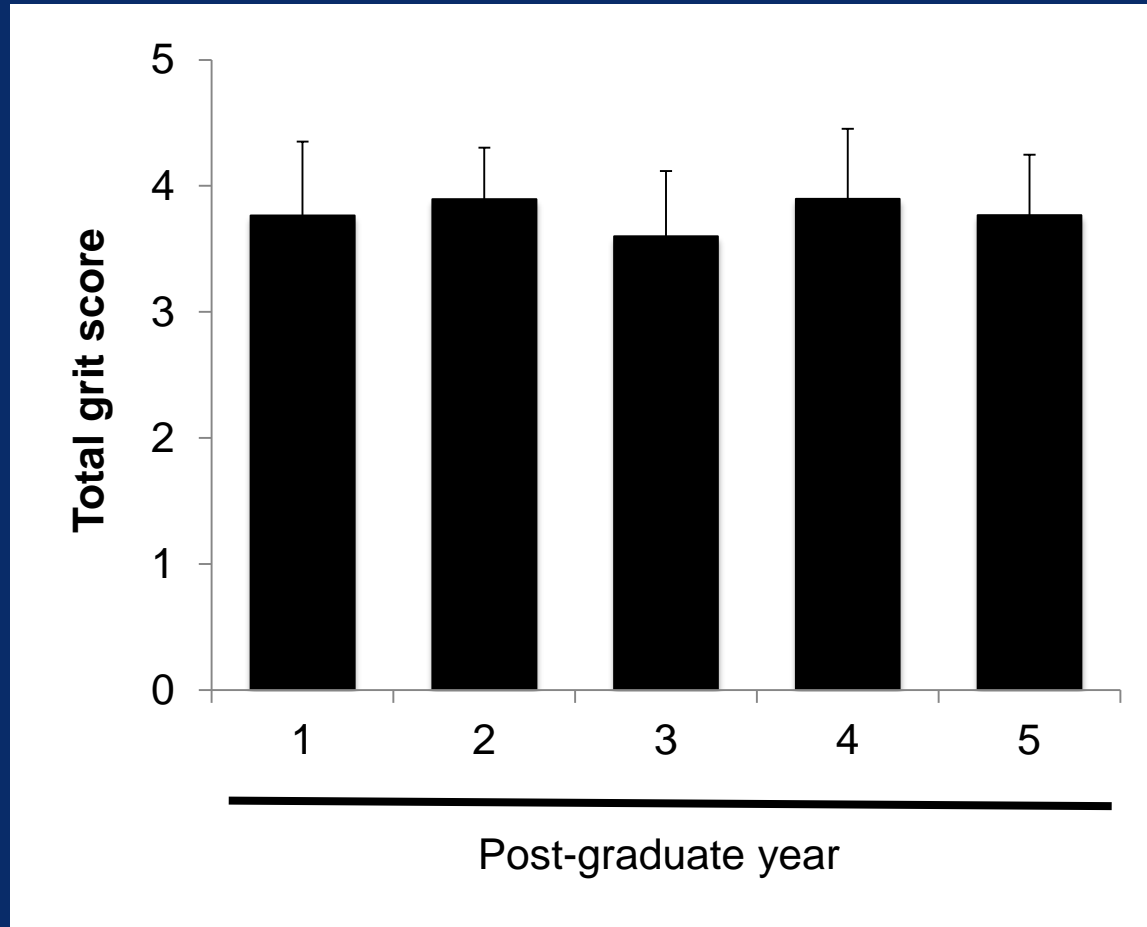

the higher the score the greater the grit

N = 180 residents at 11 institutions
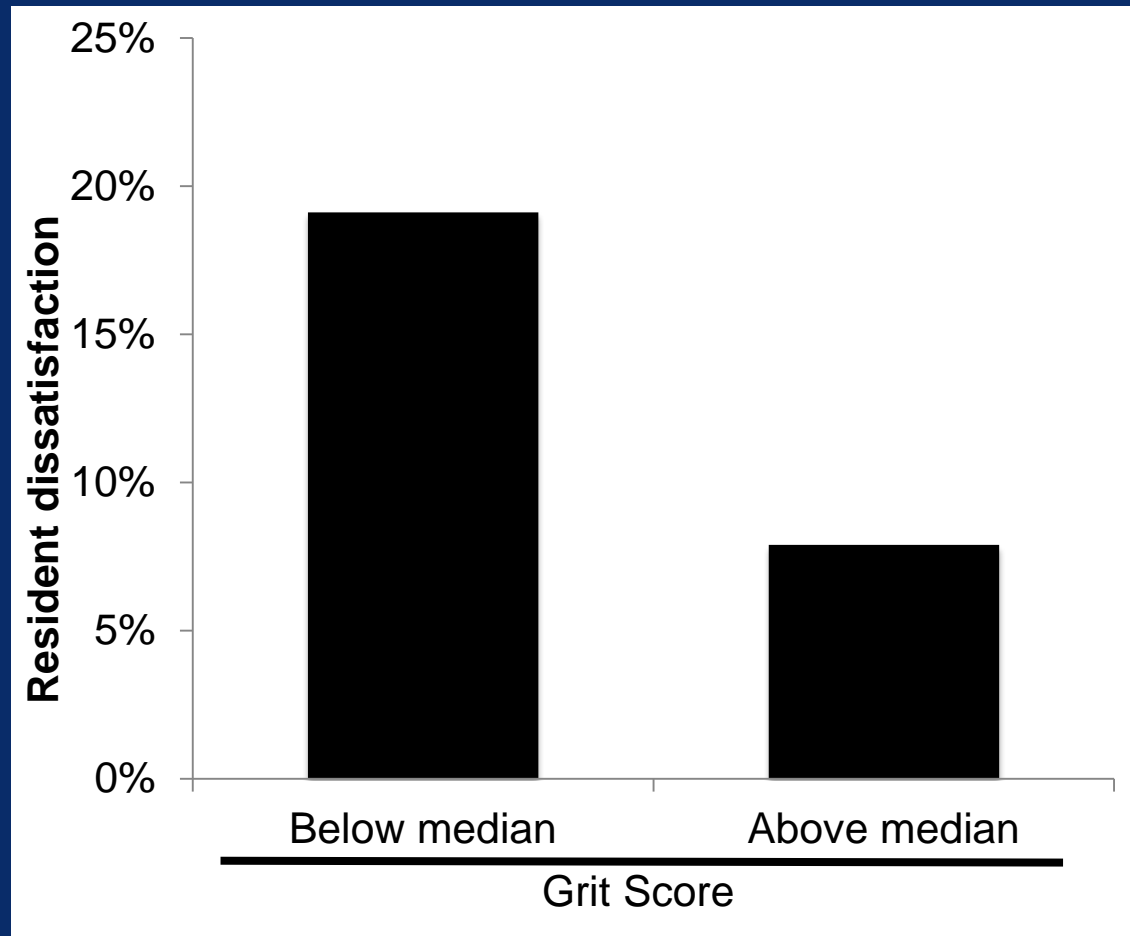
Residents compared to the general population
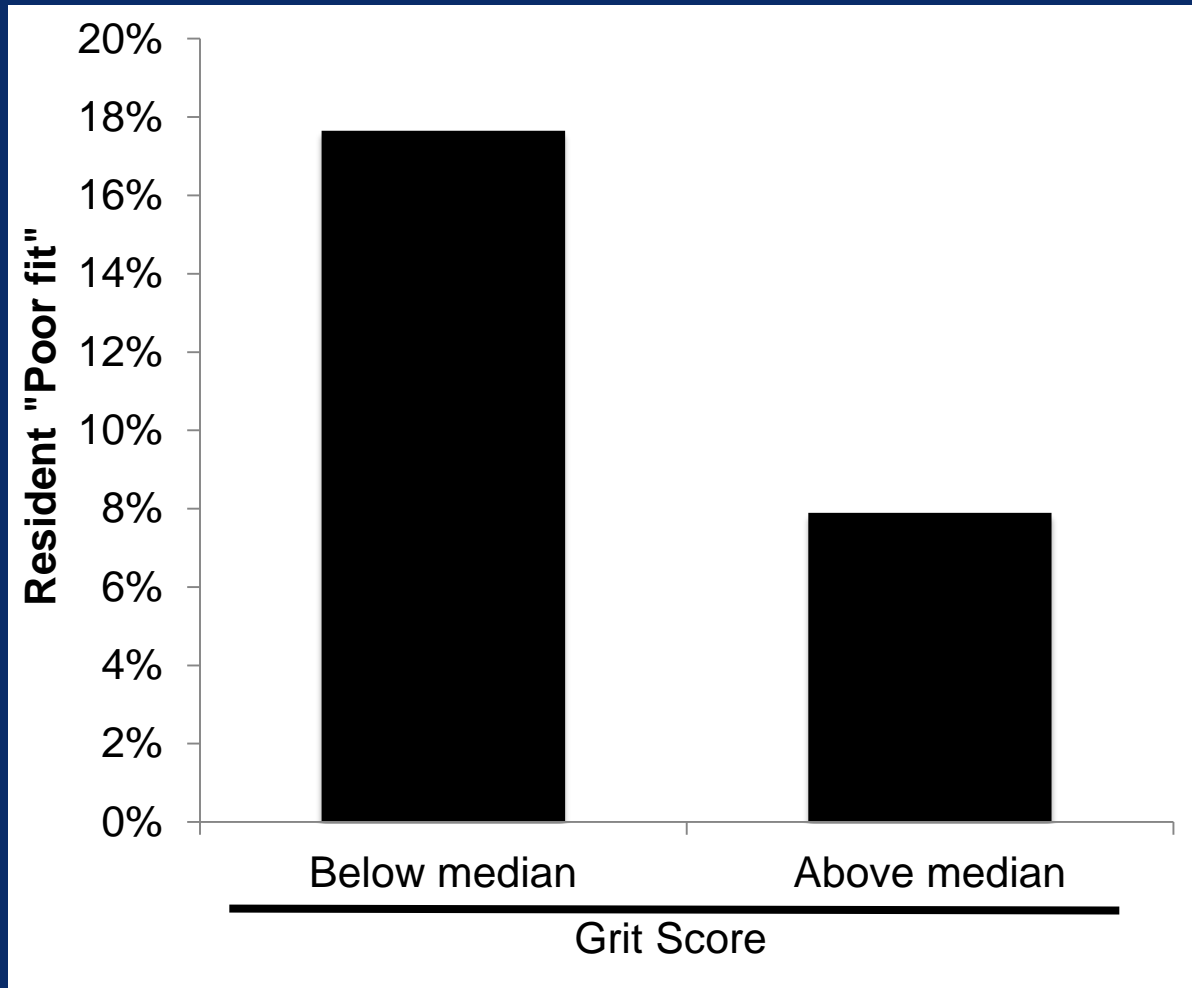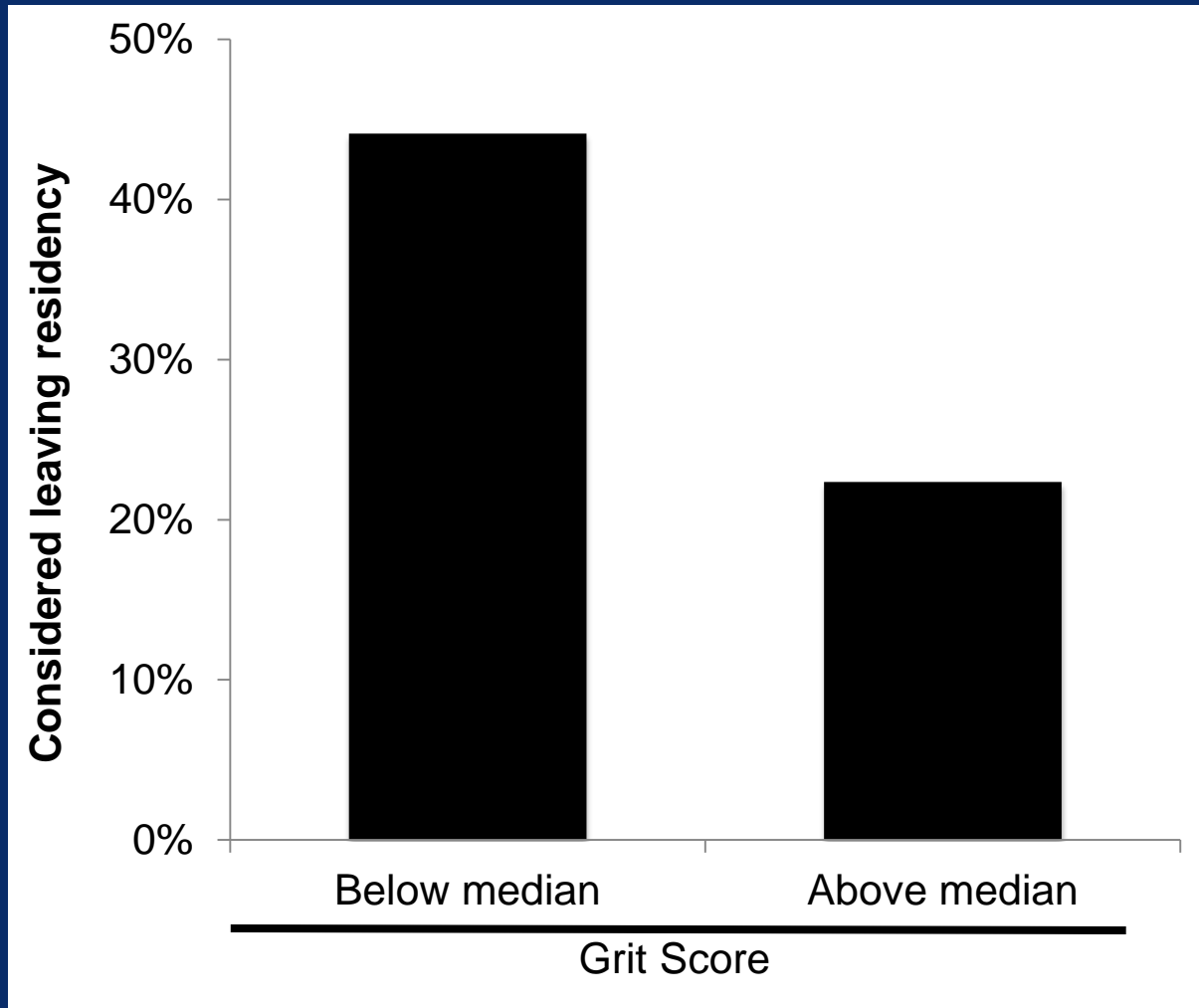
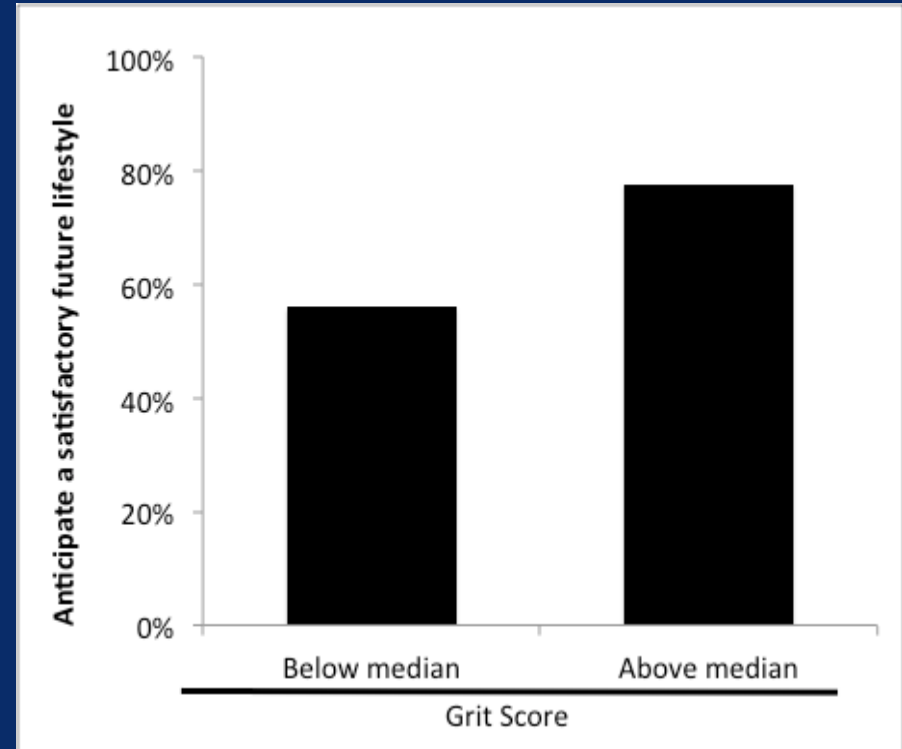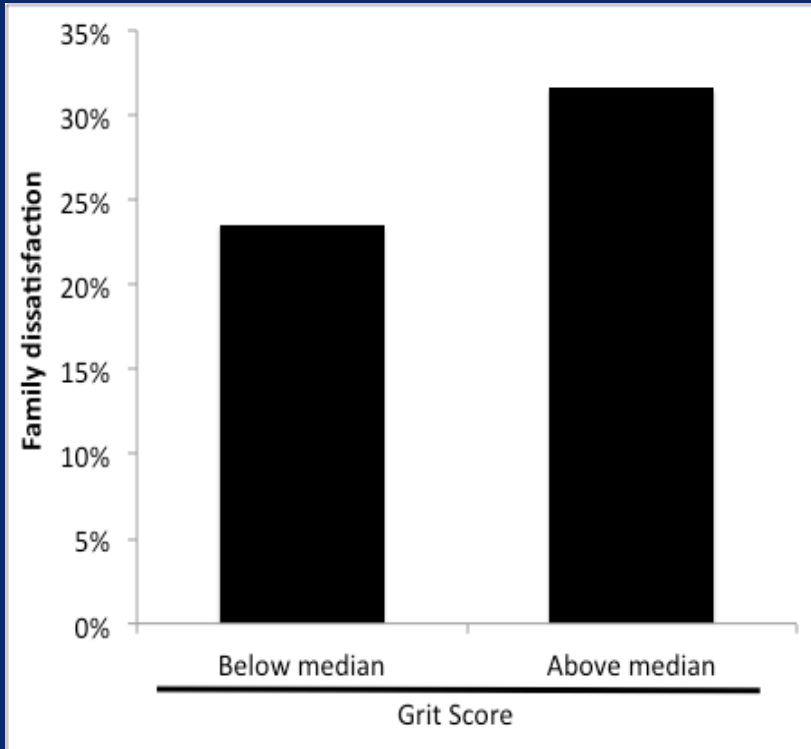# Does grit correlate with PGY?

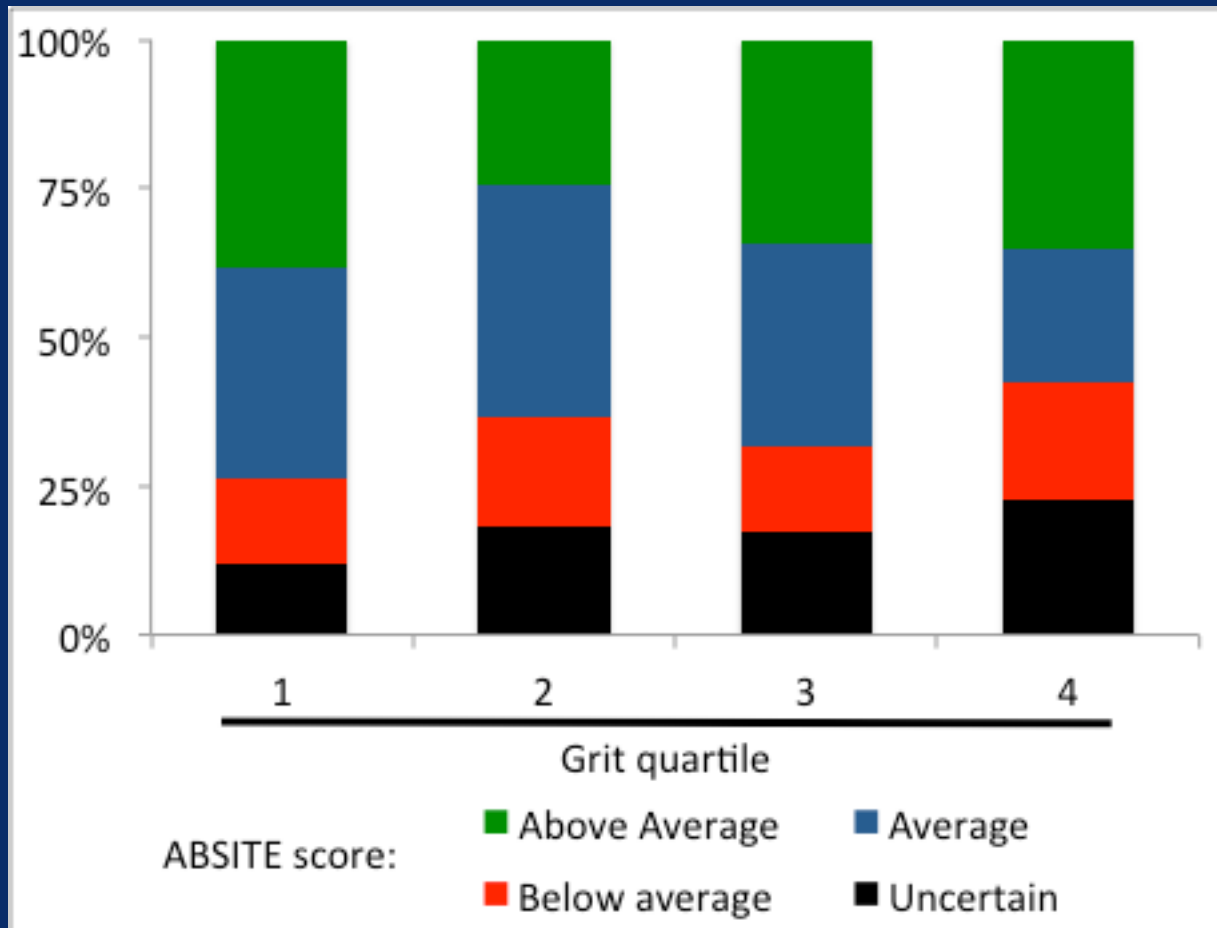# Satisfied with experience in residency?

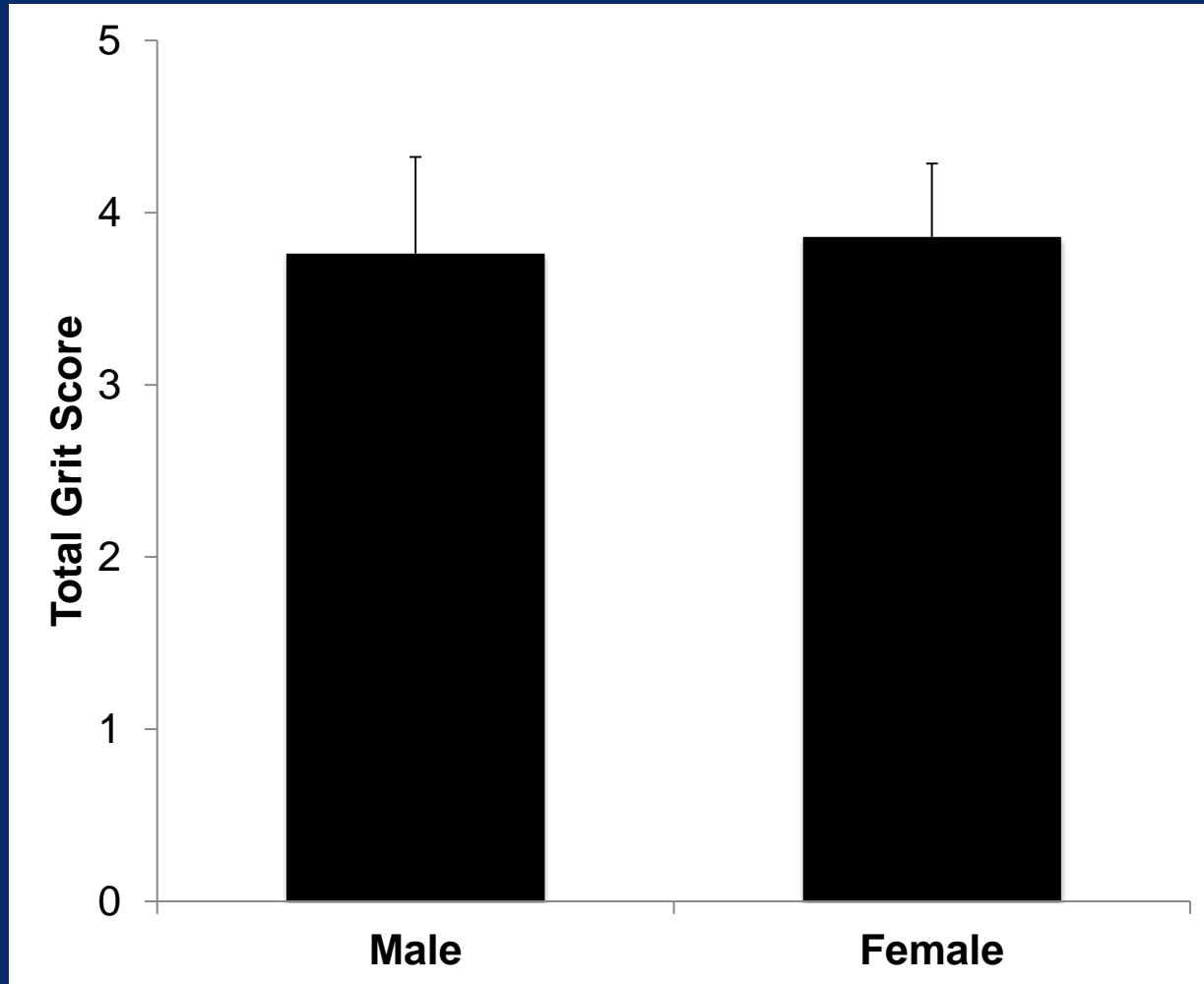# Residency "fit"

Consider leaving residency?
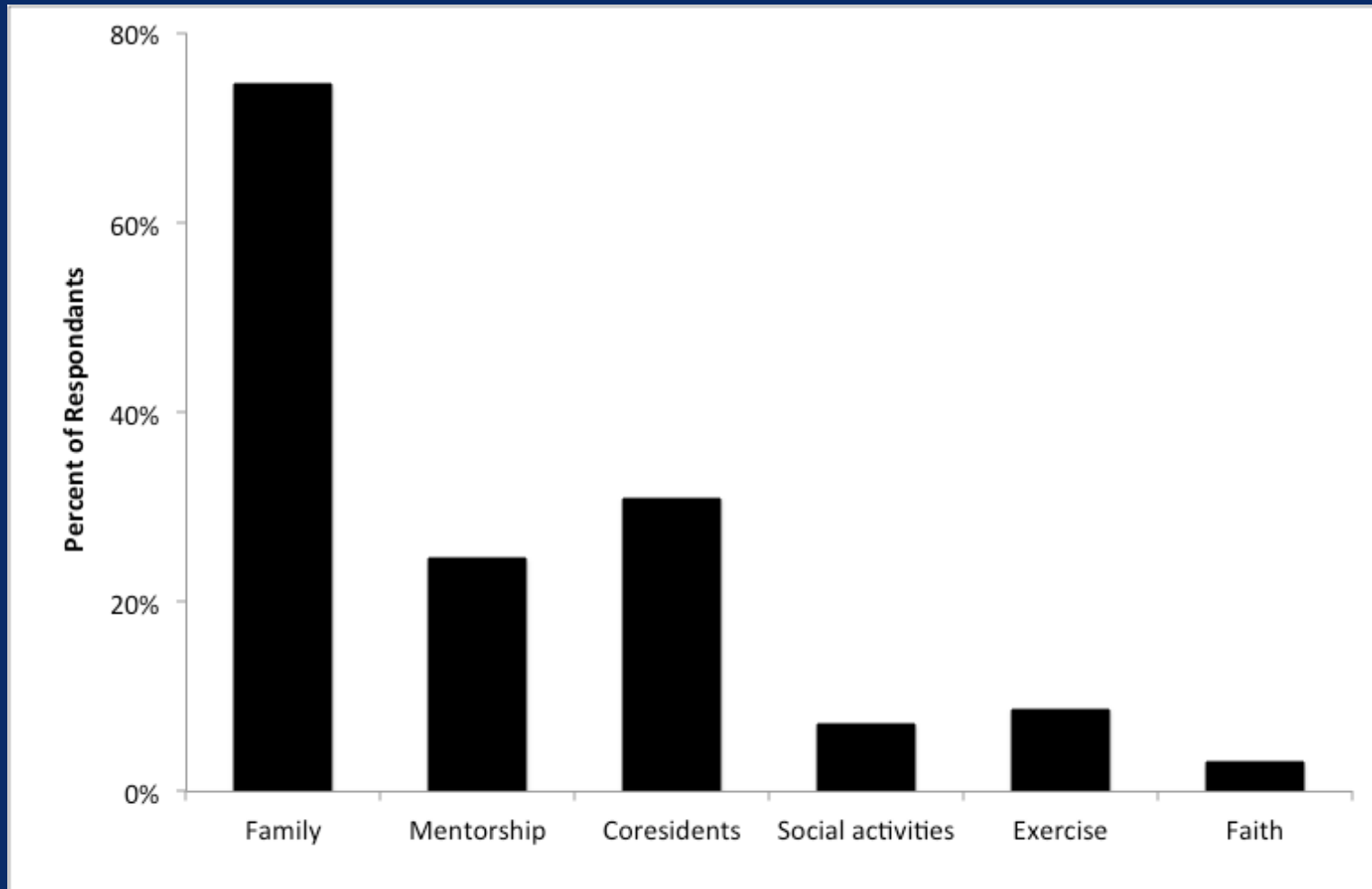
Family and lifestyle?

Other potential risk factors: ABSITE

Other potential risk factors: Gender

An opportunity through increased program support

Conclusions

- Attrition rate has held steady over the past 20 years, despite reported improvement in resident quality of life.

- Grit, defined as passion and perseverance for long-term goals, is predictive of retention in non-medical fields.

- In a diverse population of surgical residents, low grit is associated with decreased satisfaction, poor "fit" in residency, and increased thoughts of dropping out.

- Utilizing the grit survey, we can identify residents at risk for attrition and direct limited support resources to those residents that most need them.

An Invitation:

We welcome additional program participation in this pilot study!

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Imagineering