

Nurturing the Student, Sustaining the Mission: International/Inner City/Rural Preceptorship (I²CRP) Program

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Disclosures

A detailed version of this presentation is currently being reviewed as a manuscript for the journal of *Family Medicine*

Audience Participation

Do you know of any educational tracks to promote family medicine in medical schools?

A) Yes

B) No

C) Such things exist? That's amazing!

Audience Participation

Do you have (or had) these educational tracks in your program/training?

A) Yes

B) No

OBJECTIVES

1. Describe the VCU School of Medicine International/ Inner-city/Rural Preceptorship (I²CRP) Program, and outline its key curricular elements, including Self Determination Theory
2. Understand the impact of the I²CRP Program on its participants' choice to enter primary care specialties
3. Discuss factors of the I²CRP curriculum which might be replicated to encourage medical students to choose family medicine

Introduction

- By 2030, the U.S. could see *shortage of 43,000 primary care physicians* ²
- If barriers to utilize healthcare services were removed for underserved populations, *96,000 physicians would be needed to fill in the gap* ²
- There are many educational tracks in medical schools nationwide to address this gap ^{4, 6, 7}

Audience Participation

What do you think are necessary components in medical student tracks to engage student interest in primary care?

VCU SOM I²CRP Program

- International/Inner City/Rural Preceptorship Program
- Began in 1998, as ICRP, increased program size with international component added with graduating Class of 2012
- Mission: to increase the number of students going into primary care to serve in medically underserved communities in rural, urban and/or international settings



I²CRP Curriculum

- Application-based, accepted Fall of M1
- Longitudinal

| Pre-Clinical | Clinical |
|---|--|
| <ul style="list-style-type: none">• Grand Rounds• Journal Club• Practice of Clinical Medicine in an underserved setting• Required electives during M1 and M2 | <ul style="list-style-type: none">• Clerkship rotations in underserved settings• Balint groups• M4 Community Immersion rotation• M4 scholarly project |

Self Determination Theory (SDT)

- Macro-theory of human motivation, development, and health
- Developed through empirical research in 1970's by Edward L. Deci and Richard M. Ryan
- Applied in multiple domains, including education, developmental psychology, organizational psychology, and healthcare ¹

Self Determination Theory

- Throughout their lifespan, individuals demonstrate an inherent curiosity and drive to seek new information and skills
- Authentic motivation is manifest as enhanced performance, persistence, creativity, and well-being ^{1,5}
- Factors in the learning environment support or diminish motivation
- Autonomy, competence, and relatedness are universal psychological needs ^{1,5}

Self Determination Theory

Autonomy -- choice, volition, perceived locus of control

Competence -- mastery of desired skills or the perceived ability to bring about desired outcomes in one's environment

Relatedness -- meaningful interpersonal connection

I²CRP and Self Determination Theory

Autonomy

- Students apply to the program during the first year of medical school
- Students also choose track of interest -- urban, rural, and/or international
- Students refine choices to match evolving career interests

Competence

- Engagement in hand-selected clinical teaching environments in underserved community settings
- Clinical teaching is highly personalized
- Preceptors are invested in care for underserved populations AND in clinical teaching

Relatedness

- I²CRP structured as 4-year longitudinal program with continuous group membership M1 - M4
- Students report strong sense of group identity with shared values and goals
- Faculty and mentor presence with shared values and goals

Self Determination Theory

Empirical research has generated specific strategies to foster a needs-supportive learning environment: ^{1,5}

- Provide a rationale for the activity or requirement
- Provide meaningful choice
- Listen to the individual to understand their view
- Acknowledge the individual's feelings, including negative feelings
- Facilitate exploration of interests
- Provide constructive, formative feedback
- Support and facilitate upward communication
- Provide unconditional positive regard

I²CRP Program - our assessment

- # of I²CRP graduates entering primary care specialties ³ (2000-2017)
 - Family Medicine
 - Internal Medicine
 - Pediatrics
 - Medicine/Pediatrics
- I²CRP graduates currently practicing in health professional shortage area (HPSAs) or medically underserved area (MUAs)

Methods

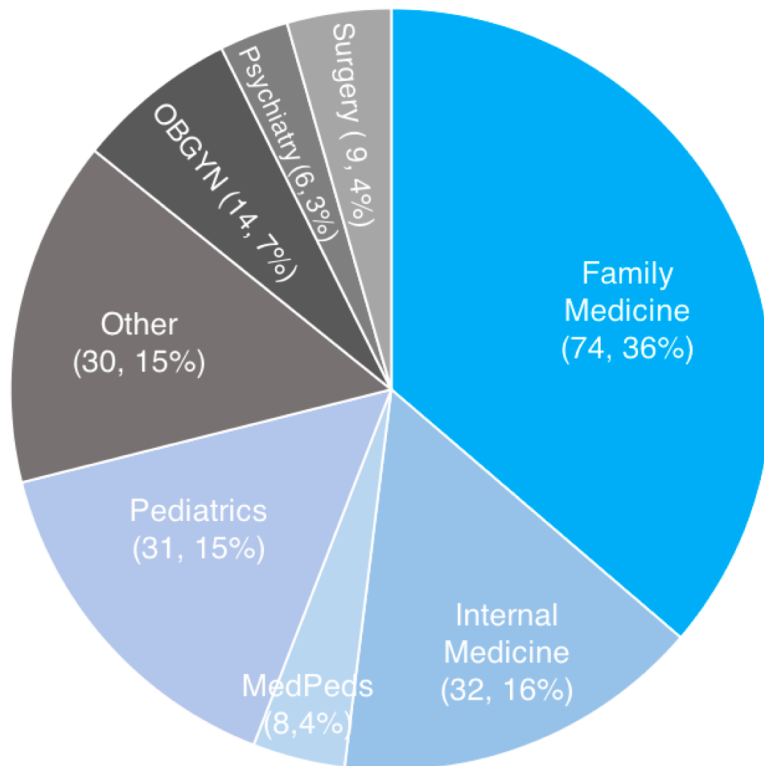
- Match list comparison of I²CRP graduates and non-I²CRP VCU SOM graduates
- Publicly available data was used to confirm current location of each I²CRP graduate, then searched in federal database to determine practice characteristics

Outcomes

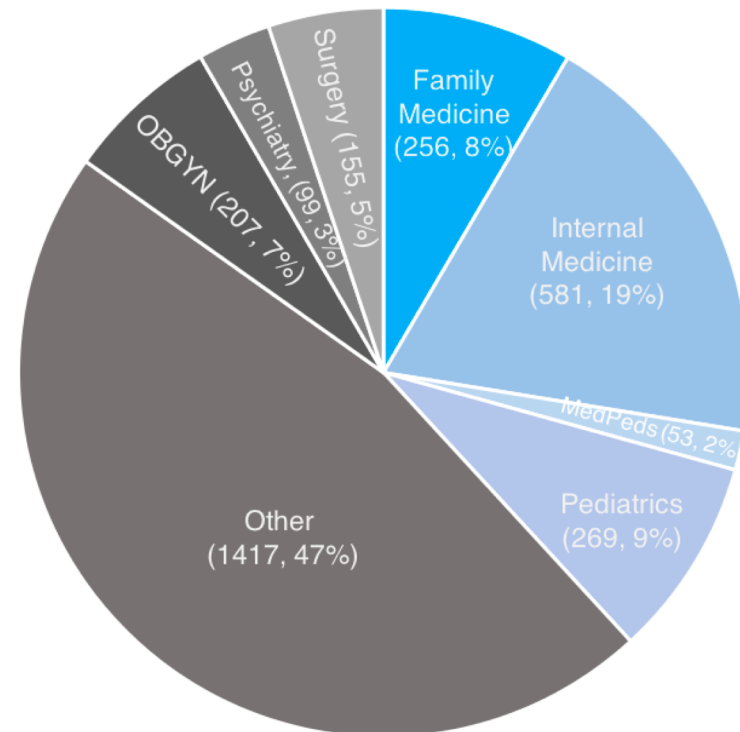
- Total # of I²CRP Graduates (2000-2017)
 - 204 graduates
 - 82 from 2000 - 2011; 122 from 2012-2017
- Total # of non- I²CRP Graduates (2000 - 2017)
 - 3037

Outcomes

I2CRP Match Results (2000 - 2017)



Non-I2CRP Match Results (2000 - 2017)



Outcomes continued

- Post-graduate training physicians in underserved areas (as of 12/2016)
 - 90 residents, 9 fellows, 9 inactive physicians excluded
 - 96 post-training practicing physicians

| Type of Practice | # of physicians practicing in this area | % of physicians practicing in this area |
|------------------|---|---|
| Rural | 17 | 18% |
| HPSA/MUA | 39 | 41% |

Conclusion

- I²CRP graduates are more likely to enter family medicine and primary care specialties compared to non-I²CRP peers of VCU SOM
- More than 40% of program graduates work in underserved areas (HPSA/MUAs) and 18% in rural areas - showing program's longevity and impact in future career decisions
- SDT framework of autonomy, relatedness and competence nurtures student interests

Future considerations

- Limitations
 - Comparison with national data
 - Selection bias
 - Unconfirmed data
 - Snapshot of physicians' location, does not account for mobility
- Qualitative studies with further evaluation with SDT either in focus groups, interviews
- Importance of early medical education training to nurture students' early interests, especially in family medicine and working with underserved communities

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Questions?

Contact us!

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