UCSD Department of Emergency Medicine

Research Associate/Faculty Mentor Program

Edward Castillo, PhD, MPH
Professor
Purpose of Today’s Overview

Provide a brief introduction to the Department of Emergency Medicine Research Associate/Faculty Mentor Program

Review program requirements

Answer any questions
Background – Research Associate (RA) Program

Created in early 2000s
Roughly 30-50 active members per year
Partnership with Faculty Mentorship Program

Purpose

• To strengthen research in the field of Emergency Medicine
• To provide an introduction to clinical research
• To provide an opportunity to interact with patients in a hospital setting
• To help you get into medical or graduate school (or any other health or research-related endeavor)
What is the role of an RA volunteer?

Enroll patients into clinical research studies

Use EPIC (electronic medical record) to screen for general study eligibility
  - Age, Language, Custody, Severity of Illness, Capacity to Consent

Approach patients and assess interest in participation

Review and complete study consent process

Interview, collect and record study-related information directly from patient (using REDCap on an iPad)
Background – FMP Program

Academic course credit for independent research experience (EMED-199)

• 4 credits/quarter

Overlaps with the ED Research Associates (RA) Program

Purpose

• To help you initiate and/or formalize the undergraduate research experience in Emergency Medicine

• Learn to work with a faculty mentor

• Understand developed research tasks like literature reviews, chart reviews, possible exposure to analyses, abstract/research manuscript writing
How are FMP students different than RAs?

RAs serve a single four-hour shift each week

FMP students are required to complete all RA expectations AND:

• Serve an additional four-hour shift per week (Two four-hour shifts each week, 80 quarterly hours total each quarter)

• Serve two hours dedicated to their independent research project (20 quarterly hours total each quarter)
Hillcrest ED

Level 1 Trauma center and the only regional burn center

Downtown catchment area

Main UCSD teaching hospital
  • Medical students and residents

Possibly less convenient, probably better Emergency Medicine experience
La Jolla ED and Urgent Care

Cardiovascular and cancer centers
First geriatric emergency care unit on the west coast
La Jolla catchment area
Secondary teaching hospital
  • Senior residents
More convenient to UCSD, but different experience than Hillcrest
  • Limited shift availability

Urgent Care – opening with limited shifts in October
General Program Requirements

Complete the UCSD Volunteer requirements

- Immunizations for flu, COVID-19 and all other general vaccinations, TB test
- Training modules for all volunteers

Complete the RA requirements

- EPIC training
- CITI/IRB training (Institutional Review Board)
- HIPAA training (Health Insurance Portability and Accountability Act)
- Program orientation
- One-on-one training in the ED with another volunteer

Enrollment in EMED-199 Winter and Spring quarters (no enrollment holds, in good standing)
Timeline

Fall Quarter:

• Recruitment & Interviews
• Application reviews and decisions
• VS and RA Program onboarding

Winter Quarter:

• Mentor and project assignment
• 80 hours of ED RA shifts, 20 hours of independent research work (100 hours total!)
• Expectation: Literature review or research proposal (subject to project and mentor), draft manuscript,
FMP Timeline (cont’d)

Spring Quarter:

- 80 hours of ED RA shifts, 20 hours of independent research work (100 hours total!)
- Expectation: Final manuscript draft (subject to project and mentor)
- Present poster at Undergraduate Research Symposium (may be in-person or virtual, attendance required)

Background
- Mental health research remains a challenge for most universities and often requires various ethical health issues to ensure the well-being of participants.

Methods
- Study Design: A pilot randomized controlled trial with a crossover design.
- Setting: Randomization to either group received either FMP or a control intervention.

Data Analysis
- January 1, 2018, to December 31, 2021.
- Population data were analyzed using descriptive statistics and appropriate statistical tests.
- Data analysis: SPSS 24 was used for statistical analysis.
- Results: 95% confidence intervals and p-values were presented.

Results
- There were 515 ED visits (53.7%) that met the inclusion criteria.
- Of these, 291 visits (56.6%) met the criteria for analysis.
- Patients who received FMP had a statistically significant improvement in mental health outcomes compared to the control group.
- Conclusion: FMP is an effective intervention for improving mental health outcomes in ED settings.

Limitations
- Attrition rate
- Non-random assignment to treatment groups

Conclusions
- FMP is an effective intervention for improving mental health outcomes in ED settings.
- Further research is needed to evaluate the long-term efficacy and sustainability of FMP in ED settings.
Mentoring

Scheduled meeting with mentor as needed/requested

Research Meetings

- Open to all RAs and FMP students
- Residents, fellows and med students
  - 3/month (2 @ UCSD, 1 @ SDSU)
  - 1 hour long
- Discuss projects, medical school, graduate school, the weather, etc.
Final Comments

- Only move forward if you can make the time commitment
- Ask many questions to make sure you understand the requirements