

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



Research Division



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Background – Research Associate (RA) Program

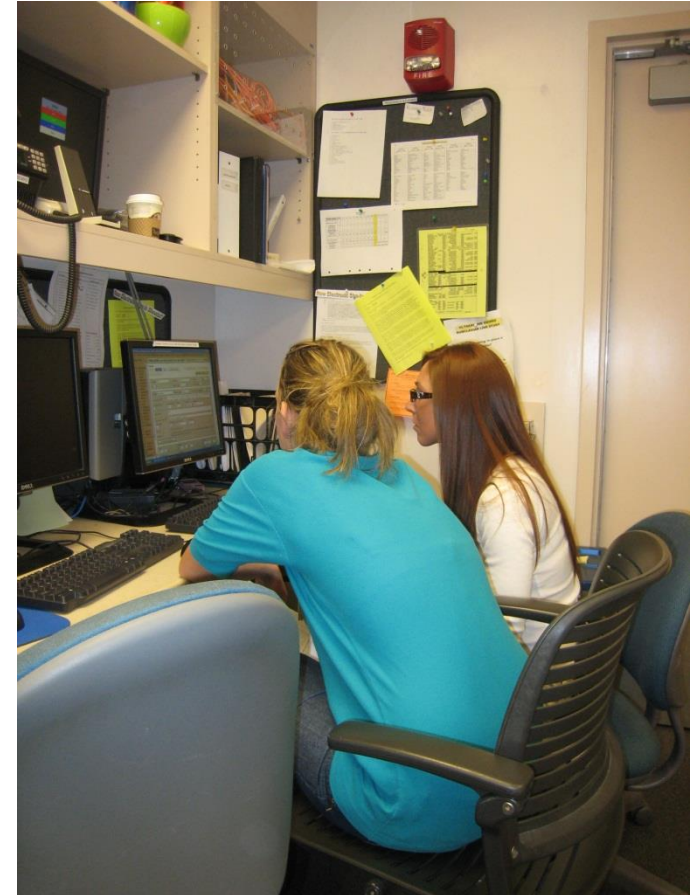
Created in early 2000s

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)



The Trusted Standard in Research, Ethics, Compliance, and Safety Training

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)

UC San Diego
Emergency Medicine

Factors Associated with Longer Length of Stay for Patients with Schizophrenia or Related Conditions and Bipolar Disorder

Vilke GM, Santodomingo M, Stanfield H, Castillo EM
Department of Emergency Medicine, University of California, San Diego



Background

- Mental health resources continue to be a challenge for most communities and often patients with acute mental health issues are cared for in Emergency Departments (EDs).
- The purpose of this study was to identify factors associated with an increased length of stay (LOS) among patients with a primary clinical impression of schizophrenia and bipolar disorder.

Methods

Study Design: Multicenter Retrospective study

Setting: Hospital A: a suburban academic hospital with a level 1 geriatric ED (GED) accreditation and Hospital B: an urban level 1 trauma center with a level 3 GED accreditation.

Date Range: January 1, 2019 – December 31, 2021

Population: ED patients with a primary clinical impression of schizophrenia or related schizo-affective conditions (SCH) and bipolar disorder (BPD)

Analysis: Univariate comparisons were performed using a chi-square test. Independent associations were assessed using logistic regression.

- Odds ratios, 95% confidence intervals and p-values are presented.

Results

- There were 2,110 ED encounters identified with a primary diagnosis of SCH OR BPD over the three-year period.
- Of these, 1010 (47.7%) had an ED LOS less than 10 hours and 1100 (52.3%) has an ED LOS 10 hours or longer. Those with a longer LOS had a lower ESI, Medicare/Medical insurance, were admitted, received calming medication, and/or were restrained at some point during their stay.
- Suicide ideation (OR=7.4; 95% CI=5.4,10.2; p<0.001), agitation medication use (OR=3.2; 95% CI=2.5,4.2; p<0.001), admission (OR=3.0; 95% CI=2.3,3.9; p<0.001), restraint use (OR=2.5; 95% CI=1.7,3.7; p<0.001) were independently associated with a longer LOS.
- Age, ethnicity, ESI and expected payor were not independently associated with a longer LOS.

Limitations

- Retrospective study
- May not be generalizable to other institutions
- Uncontrolled for some factors not available in the EMR

Conclusions

- Patients with a primary diagnosis of SCH OR BPD have longer length of ED stays if they have suicide ideation, the need for calming medication, the need for admission, or restraint use.
- ESI and insurance type were not statistically significant factors related to prolonged ED stays.
- Further research should assess if specific calming medications used for treating agitation and reduction in restraint use can impact time to disposition.

Disclosures: Dr. Vilke is on the speaker's bureau and is a consultant for Biocell and a paid legal consultant.

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



Questions?

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