NURSING RESEARCH: OUR JOURNEY TO SUCCESSFUL FUNDING
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Cathy Battaglia, PhD, RN
May 19, 2016
Agenda

• Teresita Corvera-Tindel, PhD, RN, VA Greater Los Angeles Health Care System
  • Postdoctoral Fellowship and Career Development Award in the context of Cardiac Rehabilitation: Heart Failure research

• Cathy Battaglia, PhD, RN, Denver-Seattle Center of Innovation/Eastern Colorado Health Care System
  • Nursing Research Initiative in the context of Tobacco Cessation research

• Tips for Success

• Q&A
# Research Trajectory Plan

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STUDY I: HWE in HF (Dissertation)

• **Bio-Behavioral Outcomes of HWE in HF**
  - Moderate improvement in functional status (i.e. significant ↑ in 6-MWT)
  - Improved HF symptoms without improvement in QOL

• **Non-compliance to Exercise Training**
  - Exercise compliance between completers, noncompliant completers and dropouts were 99%, 39% & 34%, respectively.
  - Multiple comorbidities, longer HF duration, lower BMI & lower hostility scores were predictive of noncompliance to exercise training

• **Physical and Psychological Functioning r/t QOL in HF**
  - Younger age, higher depression scores, lower physical functioning (HFFSI scores) accounted for 34% of the variance in poor C-QLI scores
Mentored Research Training: Nurse Post-Doctoral Fellowship, VA OAA

- Designed to provide nurses with research-focused doctorate
  - Broaden scientific or research background
  - Extend potential for clinical research in nursing

- Program Goal
  - To support research training for those who lack research experience
    - Supplementary intensive training in research methodology
    - Research experience at a VA facility under an established investigator
Mentored Research Training: Nurse Post-Doctoral Fellowship, VA OAA

- **Eligibility Criteria**
  - **VA Facility Eligibility Criteria**
    - Resources and Environment: research programs
    - **Preceptor:** doctorally prepared preceptor (VA facility or university)
    - **Program Director:** full-time VA nurse (liaison)
    - Affiliated College and University
  - **Applicant Eligibility Criteria**
    - Citizen
    - license with a master’s degree in nursing or related field + BSN
    - Anticipate a research-focused doctorate by the beginning of fellowship
Mentored Research Training: Nurse Post-Doctoral Fellowship, VA OAA

• Application Details
  • Transmittal Letter from Facility Director
  • Core Narrative
    • Applicant
    • VA Facility
    • Academic Institutions
    • Fellowship Curriculum Plan
  • 3-page Proposed Research Project
    • Research must be relevant to care of Veterans
Proposed Research Topic (Study II): Home-Based Nurse Counseling & Exercise Training in HF

Pre-test Baseline (Dependent Variable)

12-week Program Intervention (Independent Variable)

Post-test @ 12 weeks (Dependent Variable)

GROUP 1: HNC + HWE PROGRAM

GROUP 2: HNC ALONE PROGRAM

GROUP 3: 'USUAL CARE & ACTIVITY' PROGRAM

Functional Status
Psychosocial Wellbeing
QOL
Neurohormones
Gait Biomechanics

TIME 0

TIME 1

TIME 0

TIME 1
Mentored Research Training: Nurse Post-Doctoral Fellowship, VA OAA

- **Funding Details**
  - **Appointments with Stipends**
    - Full-time
    - Part-time
  - **Research Support: $3000**

- **Website**
  - [http://www.va.gov/oaa/residencies_fellowships.asp](http://www.va.gov/oaa/residencies_fellowships.asp)
    - Tips for pre- and post-doctoral nursing fellowship application
Mentored Research Training: Career Development Award (CDA)

- Mentored Salary-based awards for early-career investigators to become an independent VA Funded investigator

- Purpose:
  - Attract, develop, and retain talented VA-ORD researchers
  - Provide mentoring for junior researchers from renowned, experienced VA researcher
Mentored Research Training: Career Development Award (CDA)

• **Eligibility:**
  - VA or Non-VA employees - 5/8 appointment by funding time
  - Clinicians (Title 38) and Non-Clinicians (Title 5) – MDs, PhDs
  - < 5 years beyond training completion

• **CDAs funded in each Research Service:**
  - Biomedical Laboratory R&D
  - Clinical Science R&D
  - Rehabilitation R&D
  - Health Services R&D
Mentored Research Training: Types of CDA Application

- **CDA-1**
  - Entry-level mentored research experience
  - No > 2 years from training completion
  - 2 years salary support only
  - Award Conclusion - Compete for CDA-2 or other VA funding

- **CDA-2**
  - Mid-level program for researcher – no peer-reviewed funding
  - No > 5 years training completion
  - 3-5 years salary support + $65,000/year project funding
  - Award Conclusion: VA funding to be independent investigator
Mentored Research Training: Types of CDA Application

- **Minority Serving Institution CDA-2**
  - Primary mentor:
    - Historically Black College or University
    - VA facility

- **CDTA**
  - Clinical scientists transitioning into independently funded VA investigators
  - 3 years salary support
  - Requires mentoring but not required to received CDA-1 or CDA-2
Mentored Research Training: 
Career Development Award (CDA)

• **Funding Details**
  
  • *Salary-Based Award*
  
  • *Potential candidate:* VA nominated via Letter of Intent (LOI) submission
    • Approved CDA-2 LOI - maximum of 3 submission
    • VA appointment is not required
  
  • *5/8 appointment*
  
  • *CDA offerings varies among four ORD Services:*
    • [http://www.research.va.gov/funding/cdp.cfm](http://www.research.va.gov/funding/cdp.cfm)
Mentored Research Training:
CDA Evaluation Criteria

• **Productivity of applicant**
  • *Three publications*

• ** Appropriateness of research and training plan**

• **Suitability of proposed mentors r/t nominee’s goals**
  • **VA funded investigator with established research program**
    • BLR&D & CSR&D - mentors be a current VA-funded investigator
    • RR&D – primary mentor be VA employee + mentoring team (include non-VA scientists)
  • **VA mentor with defined role in both the research and training proposed**
Mentored Research Training: CDA Evaluation Criteria

- Feasibility and merit of planned research
- Nominee’s commitment to VA
- Sponsoring site commitment to nominee
Study IV: Research Topic for CDA Application
Gait Biomechanics, Functional Status & Exercise Training

- Evaluation of the relationship of gait biomechanics
- Walking exercise protocol
- HF patients’ functional status (maximal & submaximal exercise capacity and/or daily functional performance)
- Identify appropriate exercise prescription to optimize functional status in HF patients with abnormal gait biomechanics
Study V: NRI submission (CDA conclusion)

VA HSR&D NRI: Prevalence of Depression in HF

- Prevalence of clinical depression (Diagnostic Interview Structured Hamilton [DISH]) and depressive symptoms (BDI) among Veterans with HF during hospitalization and 2 weeks, 3 months, 6 months and 12 months post-discharge.

- Temporal relationships of clinical depression (by DISH) with
  - physical functioning (measured by NYHA and Specific Activity Scale [SAS] functional class)
  - biochemical markers associated with HF and depression such as brain-type natriuretic peptide [(BNP) and cytokines (i.e. tumor necrosis factor-alpha [TNF-α], interleukin (IL)-6 and IL-10), TNF-α/IL-10 ratio, and IL-6/ IL-10 ratio)
Nursing Research Initiative (NRI)

• Designed to develop & retain VA nurse research scientists
• A mentored Merit Review Award
• Program Goals
  • Expand the number of nursing researcher scientists
  • Provide infrastructure to stimulate and support nursing research/evidence-based practice
  • Promote research in areas critical to health of Veterans & advance VHA nursing practice
  • Expand the breadth & depth of the nursing research portfolio
  • Foster collaborative research
Why is the NRI an Important Funding Mechanism?

- Nurses integral to VHA research
- Nurses are underrepresented as principal investigators (PIs) in VHA
- NRI supports nurse investigators in the early stages of their research career, leading to independence in the PI role
VHA nursing research focuses on identifying, testing, and/or implementing nursing interventions that enhance health and disease prevention of Veterans across the care continuum

- Patient-centered
- Culturally congruent
- Cost-effective
- Outcome-driven
Funding Details

- NRI Merit Award – 4 years/$1.1M
- NRI Pilot Award – 2 years (max)/$100K
- Key dates are listed in RFA
- Intent to Submit notification required
- Two resubmissions allowed for NRI Merit
- Eligibility – 5/8 time with a research doctorate
- NRI Pilot can be used for experienced nurse changing research trajectory/focus

http://www.hsrdr.research.va.gov/funding/nri.cfm
Tips for Success

• Importance of Mentorship
• Choosing a Mentor
• Choosing a Research Project
• Grant Writing Strategies for a Mentored Award
Conceptual Model of Factors that Influence the Development of a Research Career

Background and Environment

Trainee Characteristics
- Gender
- Underrepresented Minority
- Prior Research Experience
- Prior Publication History

Institutional/Program Characteristics
- Family Support
- Finances/Debt Burden
- Prior Education
- Academic Support
- Formal Training Provided
- Advisement/Counseling
- Racial Composition

Short Term Outcomes
- Goal Commitments
  - Persistence Decisions
  - Commitment to Discipline, University/VA, Occupation

Long Term Outcomes
- Academic/Scientific Development
  - Time Management, Work Habits
  - Research Participation
  - Presentations
  - Journal Articles, Grant Writing

Long Term Persistence
- Promotion/Tenure
- Employment in VA Research
- First/Senior Author Publications
- Sponsored Grants
- Scientific Review Group Membership
- Density of Collaborative Networks
- Membership of younger colleagues


Tinto V. Leaving College: Rethinking the Causes and Cures of Student Attrition. 2nd ed. Chicago, IL: University of Chicago Press, 1993.
Mentorship

Mentoring is recognized as a catalyst for career success

- Career planning
- Professional and personal development
- Enhances career satisfaction
- Provides career guidance
- Improves productivity
- Increases self-assessed confidence
- Builds networks
Eligible Mentors

- PI must be guided by at least one senior nurse research scientist
- Be on staff at VHA and/or faculty of affiliated university
- Primary role
  - Develop a successfully funded proposal
  - Assist with ongoing challenges while conducting research
  - Develop mentee as a fully independent funded nursing researcher
- Other requirements as determined by research program
Choosing a Research Mentor

- Mentoring is a complex and dynamic process
- Careful planning is crucial to success
- Want to choose someone who is:
  - Interested in serving as a mentor
  - Able to make a commitment (time and effort)
  - An expert in the area you need mentoring
Characteristics of a Mentee

- Understanding of the help you need
- Recognize one person cannot meet all your mentoring needs
- Recognize your mentoring needs will change overtime
- Have the ability to work through criticism
- Commitment to making the relationship develop and work effectively
Building a Mentoring Team

- Lead Mentor – expert in field can guide mentee in the following areas:
  - Professional research & academic skills
  - Career advice & management: develop a five-year career plan
  - Develop a feasible, coordinated research plan
  - Provide resources: databases, access to space, research staff, access to funding and potential funding sources (VHA Center of Innovations)
  - Collegial networking: national, international
  - Assist with dissemination strategy
  - Assist with developing a mentoring team
Building a Mentoring Team

• Co-Mentors - Responsible for working with the lead mentor on overall mentoring responsibilities for the mentee and for providing particular guidance in their areas of expertise

• Advisor - Informal relationships with mentees and may or may not have a concordant area of research. Assists in developing or refining program of research, networking & help launch career
Choosing a Research Project

An overlap between choosing a research field & project and choosing a mentor

• Find people to help guide you
• Find an area, field or project of personal interest
• Find a defined “doable” project
• The project should be important and the question worth answering
• Need to balance your ideas and independence with others
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<td>II</td>
<td>Integrated Telehealth Care Management and Tobacco Cessation for Veterans with PTSD who Smoke</td>
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<td>III</td>
<td>Motivational Interviewing Smoking Treatment Enhancement Program (MI-STEP)</td>
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<td>Submitting a IIR Pilot - Quit Smoking for Good: A Multifaceted Intervention Grounded in Evidence-based Treatment for Veterans with PTSD</td>
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In your research proposal it is essential to:

- Generate interest—many say this is the real key, the “hook” that grabs the reviewers attention and generates real excitement
- Demonstrate importance, value—the WHY
- Give a concise overview of the research (what will be done, and how this is novel)
- Clearly state the exceptionally strong IMPACT of your defined, expected results
Grant Writing for Success

- Include career development language in mentored awards such as NRI/CDA

- State how your research project and research program are specifically relevant to your career objectives

- State how your research project and research program are appropriate to your stage of research development and as a vehicle for developing your research skills as described in the career development plan
References

- Tinto V. Leaving College: Rethinking the Causes and Cures of Student Attrition. 2nd ed. Chicago, IL: University of Chicago Press, 1993.
- Dario Sambunjak, MD, Sharon E. Straus, MD, MSc, PRCPC, Ana Marušic´, MD, PhD Mentoring in Academic Medicine A Systematic Review, JAMA, September 6, 2006—Vol 296, No. 9