Division of Research Updates & Demystifying Proposal Writing

Ming Tai-Seale, PhD, MPH
July 8, 2020
Agenda

• FM faculty Research interest updates and needs assessment
• On writing a research proposal – start with a pilot
• Next round of pilot project application timeline
• Discussion
Research Interest and Needs Assessment

Update faculty research profile
https://medschool.ucsd.edu/som/fmph/divisions/family-medicine/research/Pages/Research-Interests.aspx

Guide planning
https://ucsd.co1.qualtrics.com/jfe/form/SV_2uAM16gb6un4f8V

When done, show the cup under “Participants”
Writing a Research Proposal

Start with a pilot
What a finished product looks like


3. Strengths and Limitations

Strengths: In response to the HHMI AGING Research Network's call for pilot proposals, we propose a rigorous, data-driven, and cross-researcher-driven research questions on aging care planning, and building a meaningful scientific collaboration relationship between PAMFRI and UCSI OAIC scientists investigating. This effort holds promise for future R15 level intervention to remove the barriers and strengthen the efforts of advocates to advance care planning identified in this study. The limitations include, first, the potential omission of information in the EHR that CAPR was discussed but patient did not wish or was not able to name a surrogate decision maker or provide documentation. Second, while being able to identify the healthcare team member who initiated and carried out the CAPR discussion prior to its documentation by expanding the responsibility to the healthcare team, however, rather than individual clinicians, we recognize the importance of teamwork in providing patient-centered care for vulnerable elders with MCC. Lastly, it is necessary to limit the scope of the study. Future efforts built upon this will examine the total use of services and costs.

3. Conclusion

The proposed pilot is responsive to the Call for Proposal because, (1) it is highly relevant to older adults with MCCs as understanding and documenting patient wishes are prerequisites to honoring them in their care. While it is a basic component of palliative care specialist work, its diffusion into non-palliative care specialists is essential as there are not and will not be enough PC specialists to meet the growing demand as the number of vulnerable elders with MCCs continues to rise. (2) The proposed pilot compares the expertise of researchers and clinicians in two outstanding research institutions to build a meaningful collaborative relationship and to answer important research questions. (3) The EHR data have already been extracted (a non-trivial accomplishment), under IRB approval. We have also developed the key informant interview questions. It is highly likely that the proposed study will be completed within one year. (4) The investigators have a track record in publishing research in high-impact scientific journals. A previous paper on the subject produced by PAMFRI researchers has been referenced frequently in the recent IOM Rapid Dying in America. (5) This work will prepare us well for a large-scale R01 study in the near future. (6) Dr. Ellis Dillon is an early career investigator. She was Dr. Ta-Seal's postdoctoral fellow before being promoted to her current position as an Associate Professor. Dr. Christine Riffle will also mentor the work on this R01 and manage the project.

Section 4 – Timeline of Main Tasks

The EHR analysis for the parent project is already underway, with IRB approval. As soon as funding is secured, we will request IRB approval to amend the protocol to include additional key informant interviews, financial analyses, and a financial assistant on the grant team. The revised protocol aims to provide a clearer overview of the project's scope and objectives, ensuring that all parties involved are aligned and focused on delivering high-quality research with the potential to inform policy and practice in the aging care planning domain.
Parts of an Application

- Abstract/summary – 30 lines
- Research plan
  - Specific aims – 1 page
  - Significance
  - Innovation
  - Approach - how it will be conducted.

6 pages
Specific Aims

1. Start with an overview:
   a) State the goal of your project
   b) State your hypothesis
   c) Summarize the rationale and significance of your project

2. List specific aims:
   a) Each one should be specific and focused.
   b) Each one should test the hypothesis.
   c) As a whole they should synergize (but **not** be co-dependent on one another)

3. End with important information your project will uncover:
   • 1-3 sentences
Example

The pilot will accomplish two specific aims:

1. To characterize current ACP documentation practices and evaluate the sequential impact of several components of the Palliative Care Program, multiple chronic conditions (MCC), and other patient and care team characteristics on ACP documentation.

   Hypothesis 1a. The staged implementation of the Palliative Care Program increases the percentages of vulnerable elders with accessible and actionable ACP documentations over time.

   Hypothesis 1b. The number, type, and severity of MCC are associated with the likelihood that ACP is documented in the vulnerable elders’ EHR.

2. To identify barriers and facilitators of ACP conversations and ACP documentation, including the role of MCC, using in-depth interviews with healthcare team members in primary care, oncology, pulmonology, and cardiology who are outliers (in both directions) with respect to ACP documentation.
Research Plan - Significance

1. Summarize the pivotal work before yours.
   a) Strive for balance and completeness
   b) Include any controversies and discrepancies your project will address

2. State the key scientific questions that remain and why they need to be answered.

3. Summarize what you propose to do to answer one of these questions or fill an important gap in our understanding.

4. Explain how the research will improve scientific knowledge, technical capability, clinical practice, or health services.
Research Plan - Innovation

1. Explain how your project is innovative and will add significantly to existing knowledge.

2. Don’t assume that your reviewers will understand why your project is innovative.
Research Plan - Approach

For each specific aim, describe:

a. methods (with an explanation for why you chose them)
b. preliminary data (if available, not required)
c. a description of any samples (including size, inclusion/exclusion criteria, sampling approach, and proof you have access to them)
d. measures (and any conceptual frameworks for them)
e. data collection process (including a description of collection procedures and validation methods)
f. data management plan (including procedures for data entry, auditing, security and quality control)
g. data analysis plan (including descriptions of approach, software used, validation methods, and theoretical underpinnings);
h. study limitations (including potential sources and consequences of bias and strategies to minimize bias; also any confounding variables and strategies for addressing them);
i. expected results and their interpretation;
j. strategies for addressing potential problems.
The Budget

- Maximum: $30,000/year for 1 year

- Match the scope/size of the project
  - Beware of promising to do a 5-year project with the budget of a 1-year project

- Preferred priority:
  - Release time for PI’s scholarly activity
  - 10% time
What do reviewers look for

- Overall Impact
- Scored Review Criteria
  - Significance
  - Investigator(s)
- Innovation
- Approach
- Environment

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<tr>
<th>Impact</th>
<th>Score</th>
<th>Descriptor</th>
<th>Strengths/Weaknesses</th>
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<tr>
<td></td>
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Additional Guidance on Strengths/Weaknesses:

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<tbody>
<tr>
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<td>Exceptionally strong with essentially no weaknesses</td>
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<tr>
<td>2</td>
<td>Outstanding</td>
<td>Extremely strong with negligible weaknesses</td>
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<tr>
<td>3</td>
<td>Excellent</td>
<td>Very strong with only some minor weaknesses</td>
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<td>4</td>
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<td>Strong but with at least one moderate weakness</td>
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<td>Some strengths but also some moderate weaknesses</td>
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<td>7</td>
<td>Fair</td>
<td>Some strengths but with at least one major weakness</td>
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<tr>
<td>8</td>
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<td>A few strengths and a few major weaknesses</td>
</tr>
<tr>
<td>9</td>
<td>Poor</td>
<td>Very few strengths and numerous major weaknesses</td>
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Minor Weakness: An easily addressable weakness that does not substantially lessen impact
Moderate Weakness: A weakness that lessens impact
Major Weakness: A weakness that severely limits impact
Contents of the proposal

• Face Page (NIH Format- template)
• Abstract/Project Summary (up to 30 lines)
• Specific Aims (One Page)
• Research Plan (Six-Page maximum; Does not include References or Human Subjects)
• Human Subjects Section (If applicable)
• Biosketches for Key Personnel (NIH format)
• Detailed Budget Page**
• Facilities & Administrative/Indirect Costs Checklist (template)
• Budget Justification

**Note:** Budget of up to $30,000 for the pilot project should be used mainly for salary release for the PI to conduct the pilot research project

• https://medschool.ucsd.edu/som/fmph/divisions/family-medicine/research/Pages/Division-of-Family-Medicine-(DFM)-Pilot-Project.aspx
# A few Fillable pdf forms

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<td>PI &amp; research team</td>
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## Next round of pilot application timeline

<table>
<thead>
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<th>Key dates (Tentative)</th>
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<tbody>
<tr>
<td>Letter of Intent due</td>
<td>Sept 1, 2020</td>
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<tr>
<td>Invitation for full proposal sent</td>
<td>Oct 1, 2020</td>
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<tr>
<td>Full proposal due</td>
<td>Dec 1, 2020</td>
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[https://medschool.ucsd.edu/som/fmph/divisions/family-medicine/research/Pages/Division-of-Family-Medicine-(DFM)-Pilot-Project.aspx](https://medschool.ucsd.edu/som/fmph/divisions/family-medicine/research/Pages/Division-of-Family-Medicine-(DFM)-Pilot-Project.aspx)
Additional resources

• https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/write-your-application.htm#What%20Peer%20Reviewers%20Look%20For

• https://medschool.ucsd.edu/som/fmph/divisions/family-medicine/research/Pages/DFM-Monthly-Research-Meetings.aspx