Grant Skills Training Workshop-Sharing from Research Fellowship Assessment Panel

PROF DAVID SHUM

CHAIR PROFESSOR OF NEUROPSYCHOLOGY
DEAN OF FACULTY OF HEALTH AND SOCIAL SCIENCES
THE HONG KONG POLYTECHNIC UNIVERSITY

Agenda

- 1. Assessment Criteria
- 2. Tips for Preparing Your Application
- 3. Common Weaknesses in Applications
- 4. Q&A

Assessment Criteria

- Fellowship Applicant's Capability (30%)
- Training Plan (35%)
- Research Plan (35%)

Note: Recommendations will be made after the interview with shortlisted applicants.

Fellowship Applicant's Capability (30%)

 Applicant's research potential and capability including applicant's qualifications, track record in research and training

Training Plan (35%)

- Importance of the training to health care development
- Relevance of the training to conduction of the research project

Requirements for Training Plan

- 1. An **overseas attachment** to a reputable institution for at least **three months** cumulatively
- 2. Knowledge and/or skills acquired in the training programme should be applied to the research project and be able to benefit public health and health services in Hong Kong
- Details of the training programme including its purpose, duration, activities, relevance to the research project and deliverables should be clearly stated

Research Plan (35%)

- Scientific merits of the research proposal
- Translational potential/value of research proposal to public health or health services in Hong Kong

Notes:

- It can be a small-scale pilot study with no more than three research objectives or proof of concept study.
- In Section 4 of the application form, describe in simple language the potential of the research findings to improve patient care, population health, influence clinical practice and/or health services management, or inform health policy in Hong Kong and elsewhere, as well as the potential facilitators and barriers to this impact being achieved.

Requirements for Research Plan

- 1. Original and with impact to clinical practice
- 2. Clear research question, aims, objectives & hypotheses
- Feasible methodology (e.g. justifiable subject recruitment and timeline)
- 4. Outcomes and data analysis plan
- 5. Research capability (required expertise shall be included)
- 6. Justifications for budget
- 7. Ethical & safety consideration
- 8. Contingency plan

Tips for Preparing Your Application

Study Design

- 1.Study design has to be scientifically sound
- 2.Use of appropriate type of investigation to answer the research questions and attain the objectives (prospective/ retrospective; cohort/ crosssectional/ randomized controlled trial etc.)
- 3. Subjects will be recruited from available and accessible population

Study Design: Aims, objectives & hypotheses

- 1. Specific and clearly stated aims and objectives (be realistic)
- 2. Stated objective will contribute to new knowledge or needed understanding of the subject
- 3. Has this work been done before?
- 4. If hypotheses are applicable:
 - Clearly and appropriately cited
 - Be consistent with the cited research objectives

Methodology

- 1. Adequate sample size in terms of number to establish:
 - prevalence / incidence or other such rates or estimates within acceptable bounds of precision; or
 - adequate statistical power for hypothesis tests?
- 2. Describe the sampling procedures adequately
 - Inclusion and exclusion criteria
 - Comparators/ control group

REMEMBER:

Justification for sample size shall be provided in <u>ALL APPLICATIONS</u> including pilot/ proof of concept studies

Outcomes & Data Analysis

- 1. Define primary outcome
 - Addresses the most important objective
 - Basis for sample size calculation
- 2. Secondary outcomes relevant to the objectives
- 3. Confounding variables to be measured
- 4. Specific statistical tests to answer each specific objective & test specific hypothesis
- 5. Sufficient details on qualitative data analysis/ other complex analysis, e.g. Cost-Effectiveness Analysis

Common Weaknesses in Applications: Training plan

- Overseas training programme is insufficiently detailed for assessment
- Associations between the knowledge/ skills to be acquired from the training programme and the research plan are poorly stated
- Training courses or structured mentorship activities are not specifically described
- Proposed training is not relevant to the research plan

Common Weaknesses in applications: Research plan (1)

- Low translational potential within short-to-medium timeframe <u>Note</u>: Basic science research with low translational value will not be considered
- Improper use of data from CMS/ CDARS
 <u>Note</u>: Proper consent/approval from Hospital Authority (HA) must be sought if HA data will be used
- Sample size estimation is not justified or provided
- Lack of technical details or demonstration of competence to execute the proposed research

Common Weaknesses in Applications: Research plan (2)

- Not clearly state ethics/ safety approvals and/or consent for access to third-party data will be obtained before project commencement
- Study design/ analytic plan is inadequate for the research purpose

Seek guidance from your Mentor!

Wish You Success!

Q&A