

Ten Fatal Flaws of K01 Grant Submissions (and how to avoid them)

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Disclaimers

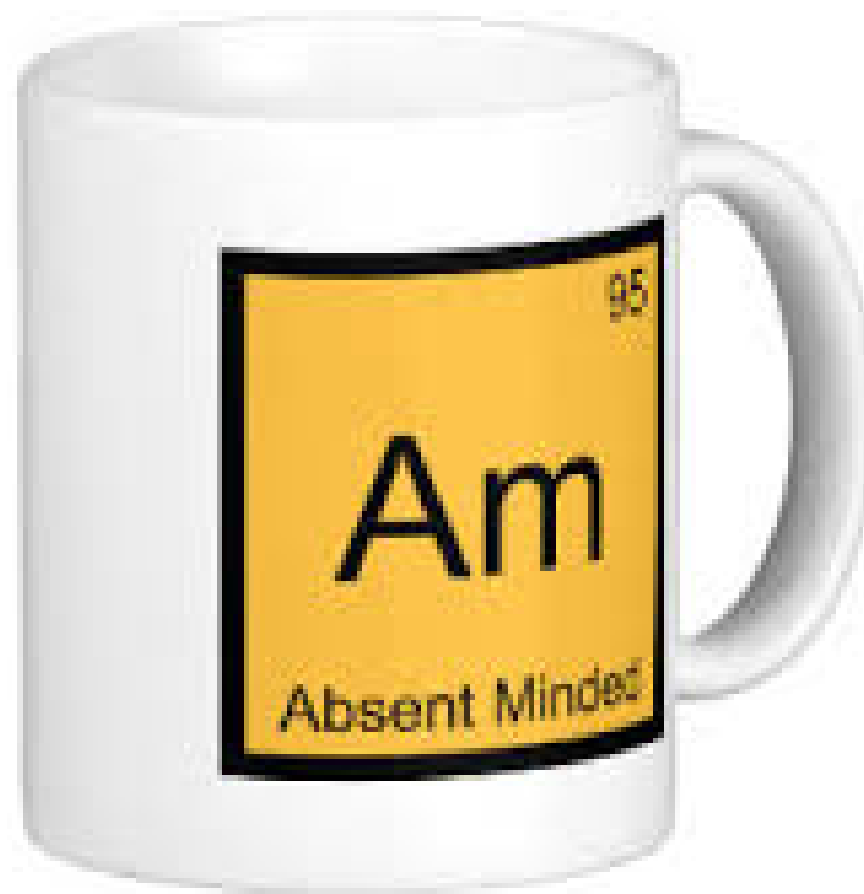
- These points reflect the opinion of a few seasoned NIH-funded researchers/mentors who have also been chartered reviewers; but are admittedly somewhat subjective
- Most of our comments are intended for K01 and K23 career development grants
- Most examples refer to applications aimed at social, behavioral and epidemiologic topics

10) Waiting Until the Last Minute



- Goal: Drafts should be circulated to mentors at least two months before the deadline; then obtain internal view from objective reviewers one month before deadline
- Consequences:
 - No time for feedback
 - Typos, details can lack consistency
 - Grant lacks polish, fabric, cross-referencing

Consequences of a Last Minute K01 Submission....



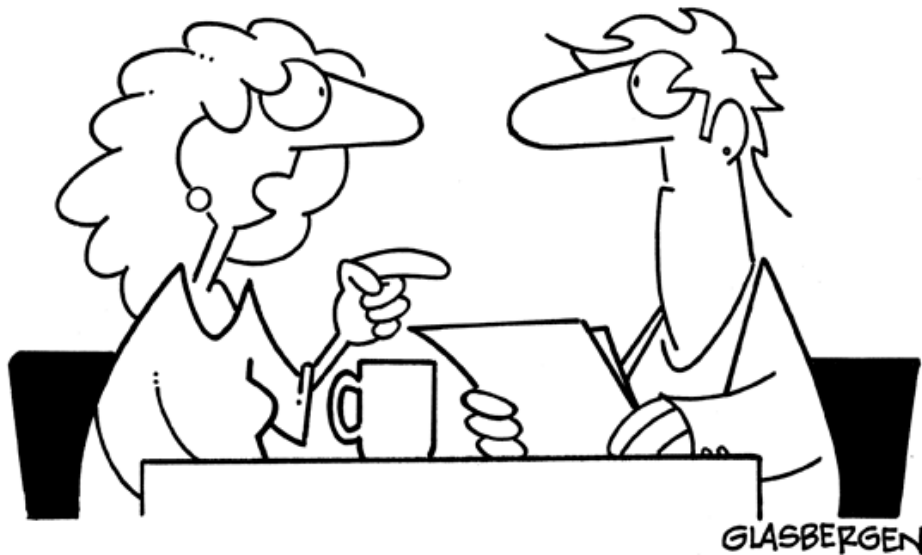
9) K is not the appropriate mechanism

- Goal: Show reviewers you are at the right stage in your career for a K, which provides mentored support for training goals you have not yet achieved.
- Consequences:
- If less than 5 publications, might appear premature;
- If you are several years past your terminal degree, might appear to have 'waning trajectory'
- If you already have the skills you are asking to be trained in, reviewers will say you 'don't need additional training'.



TIP: Get Advice!

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**“Your advice is very important to me, so
I wrote down exactly what I want you to say.”**

Check out the NIH K Kiosk

Talk to the Training Program
Director at your NIH Institute

8) Not Selling Yourself

- Goal: You want reviewers and the NIH institute to think you are a superstar, and you want to stand out relative to other applicants
- TIP: Include a powerful anecdote in your personal statement
- TIP: Have referees sing your praises so you don't appear too boastful
- Consequences:
 - Reviewers are disinterested, may not advocate strongly for your application





Sample text from Mentor's letter

- *“I can easily rank Dr. X in the top 3 postdoctoral fellows I have had the honor to work with. With her background, and through the completion of the proposed training and mentored research, I envision her becoming a productive and esteemed interventionist who will advance the public health field in the treatment and prevention of infectious diseases in new and exciting ways. I hope the review committee can see what a rising star she truly is.”*

7) Insufficient Detail in Research Plan

Goal: Provide adequate space for a crisp, detailed research plan. If project nested within a parent study, the two are clearly differentiated.

TIP: Create a name for your project so it appears more distinct.

Consequences:

- No room for methods, measures/approach lacks granularity
- Reviewers are confused about how the project fits within parent study, and what pieces are 'your own'



Milica at Castelbajard.

- I get the feeling there are other people inside me...

Differentiating Parent study from K01 Nested Study

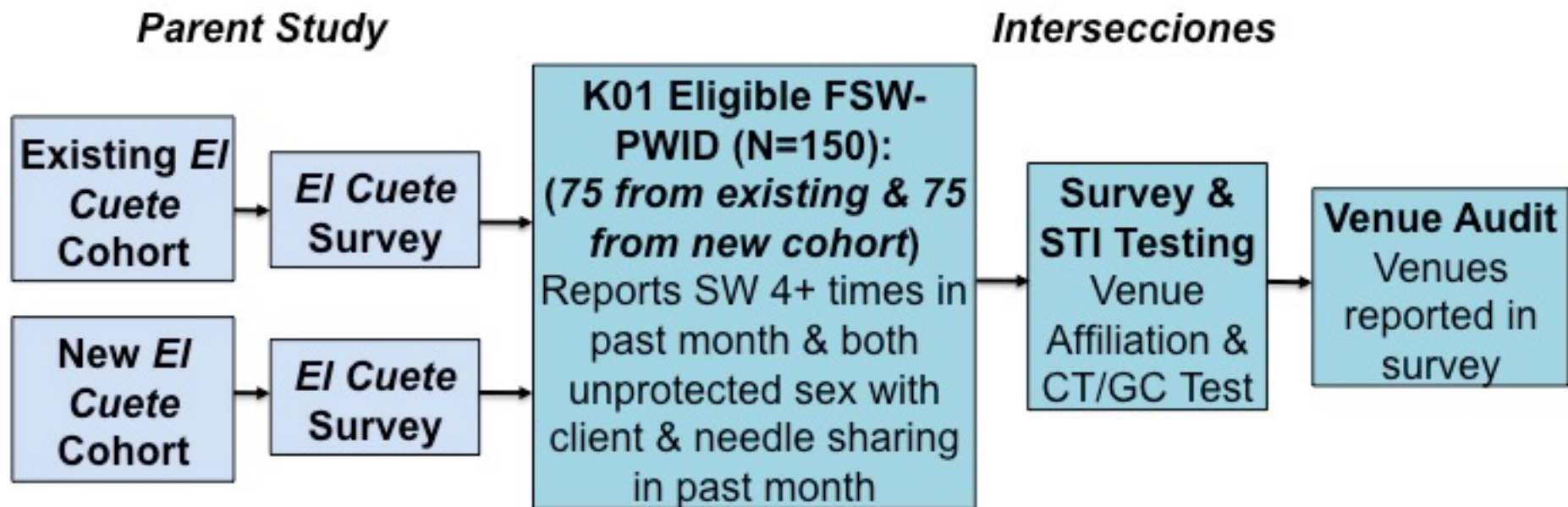


Figure 2: Process of Data Collection

Parent study: “El Cuete”; K01 study: “Intersecciones”

6) Inexperienced Mentors

- Goal: - Primary mentor(s) should be senior researcher with demonstrable mentoring experience
 - Every content area and method matched to at least one mentor with relevant expertise
 - Consultants included (with letters of support) to fill any gaps in expertise
- Tip: List less experienced mentor as co-mentor or as co-sponsor alongside a more seasoned mentor
- Tip: Include a table showing your mentor's list of past trainees and where they are now
- Tip: Mentors bio should note number previous mentees
- Consequences:
 - Proposal appears to lack adequate mentoring support



Sample Mentoring Table

Past/ Current Trainee	Trainee Name	Role	Deg. at Entry	Training Period	Prior Institution	Research Topic	Current Position, Institution
Past	Sanchez, Mauro	Pre	MD	1998- 2002	Johns Hopkins	Electronic Monitoring of Adherence to HAART	Faculty, Universidade de Brasília, Brazil
Past	Loughlin, Anita	Pre	PhD	1998- 2002	Boston University	Increasing access to HIV and HCV care among drug users	Senior Epidemiologist, OptimInsight
Past	Mehta, Shruti	Pre	PhD	1998- 2002	Johns Hopkins	Associations between HCV and Type II diabetes	Professor, Department of Epidemiology, Johns Hopkins University
Past	Ompad, Danielle	Pre	PhD	1998- 2002	Bowie State University	ADHD & conduct disorder as antecedents to high risk sexual behaviors	Associate Professor, New York University

5) Lack of Institutional Commitment

- Goal: Chair's letter must state that:
 - Academic appointment is *not dependent on K01 funding (K01) or is assured (K99)*
 - ≥75% time will be protected for research (higher the better!)
 - Mentors' letters need to specify frequency of in-person meetings (never 'as needed')
- Consequences:
 - Suggests that the university is not fully supportive of your academic appointment
 - Could give the impression that your time will not be protected for research



4) Training Goals do not Map onto Research Aims

- Goal:

- Training goals should prepare you for conducting research
- Research aims should be linked to clear, testable hypotheses for which the outcome is not already well established
- Aims and hypotheses should map onto conceptual framework, measures, power and analysis

Consequences:

Disjointed proposal ; suggests limited input from mentors

Tip: Write your training goals first.

Tip: Table training aims, courses, and mentors.

Table 2. K01 Training Activities Breakdown

Aim	Training Activity	Y1	Y2	Y3	Y4	Y5
1. Gain proficiency in sociostructural-level theories and concepts						
	Directed readings with Drs. Strathdee, Latkin, and Kerrigan	X	X	X	X	X
	Collection of primary K01 data for <i>Entornos</i>	X	X	X		
	CFAR-SBSRN Annual Meeting	X	X	X	X	X
	IAPAC Symposia: Sociostructural Contexts of HIV Treatment			X		
2. Cultivate expertise in developing/implementing sociostructural interventions						
	Independent study of HPTN sociostructural intervention protocols	X	X			
	In-person visit w/ Drs. Latkin & Kerrigan re: field research/measures	X	X	X	X	X
	Weekly field visits to MSM venues and HIV care sites in Tijuana	X	X	X	X	
	Mentor mtngs. with Drs. Strathdee, Patterson, Latkin, and Kerrigan	X	X	X	X	X
	Monthly intervention development calls with Mentoring Team	X	X	X		
3. Enrich statistical capacities to address sociostructural factors/ interventions						
	Secondary data analysis on HPTN 037	X				
	Analysis of primary K01 data for <i>Entornos</i>	X	X		X	
	U. Mich. ICPSR Courses in Network and Multi-level Analysis		X			
	U. Mich. ICPSR Course Empirical Modeling for Theory Evaluation				X	
	Sunbelt Annual Social Network Analysis Workshops	X				
	In-person visits w/ Dr. Latkin re: social network data analysis	X	X	X	X	X
	Weekly UCSD Network Methods Research Group Meetings	X	X	X	X	X
	Directed readings with Drs. Pond and Latkin	X	X	X	X	X
4. Expand training in research ethics to work with medically marginalized groups						
	"Ethics and Survival Skills in Academia" course at UCSD	X				
	Bi-weekly meetings with Drs. Strathdee and Patterson	X	X	X	X	X
	Weekly R01 Team meetings with Drs. Patterson, Smith, Pond	X	X	X	X	
	Monthly HPTN Scholars calls	X				
	Spanish Immersion Course	X				
	Preparation/Submission of RETI application		X			
	Directed readings with Drs. Strathdee, Patterson, and Rangel	X	X	X	X	X
5. Build general professional development skills for a successful academic career						
	Presentations: Bi-weekly GPH Journal Club and Trainee Session	X	X	X	X	X
	Presentations: Annual CFAR International Research Day	X	X	X	X	X
	1 international and 1 national topic relevant conference	X	X	X	X	X
	Annual HPTN and Quarterly HPTN SUSC meetings	X	X	X	X	X
	Submit to CFAR-SBSRN Annual Meeting's Mentoring Day			X		
	Preparation /Submission of CFAR Pilot Grant			X		
	Preparation/Submission of NIH R34 application				X	X
	Preparation/Submission of manuscripts	X	X	X	X	X

3) Training Plan Unrealistic

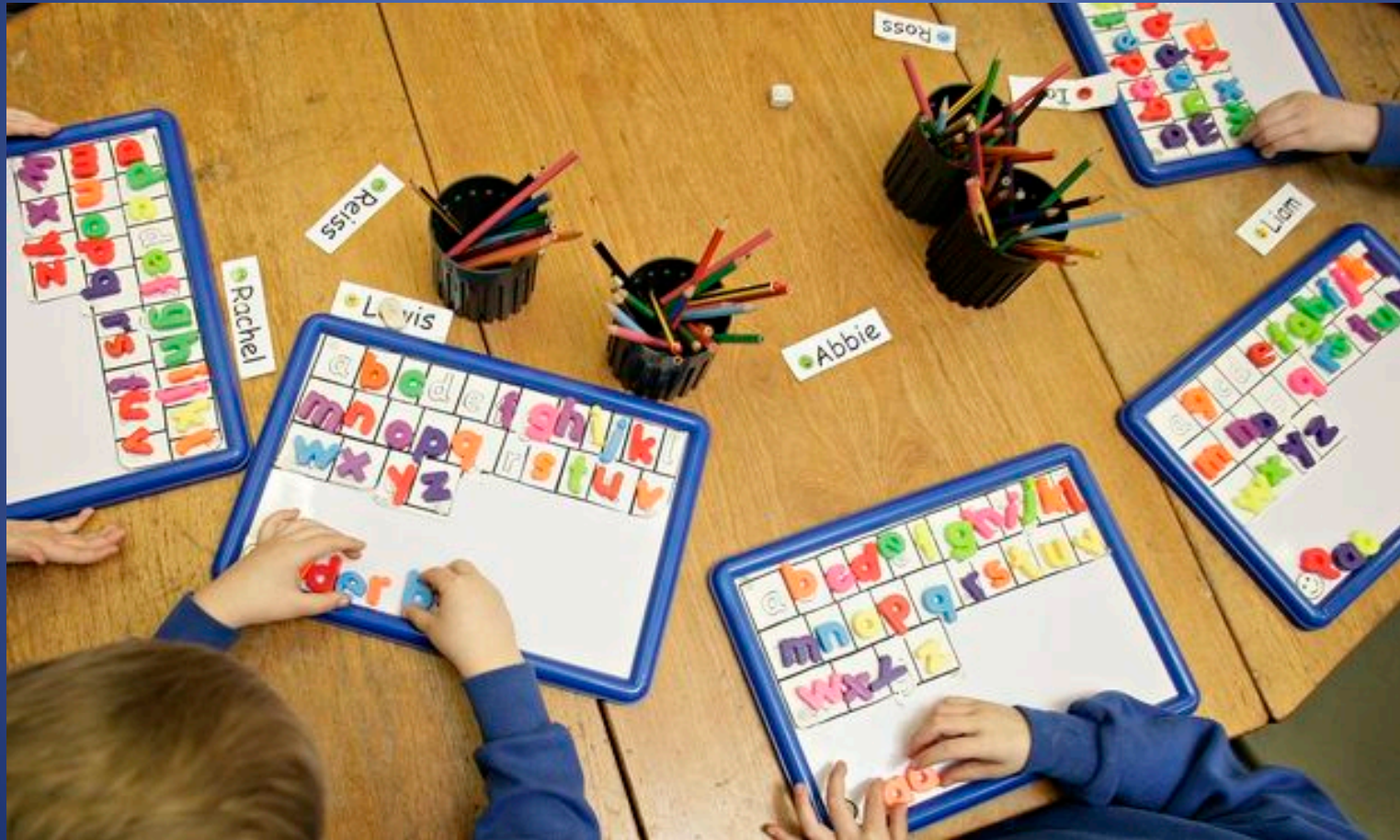
Goal: Training activities map onto training goals

- Varied types of training (e.g., courses, summer institutes, workshops, online courses, directed readings) but not overly didactic

Consequences:

- Too heavy a course burden makes reviewers wonder if K01 is premature
- Might not have obtained skills or have dedicated time for research when data collection begins

Diversify your Training Activities....



Sample Training Goals

- 1) Gain proficiency in sociostructural-level theories and concepts.
- 2) Cultivate expertise in developing & implementing sociostructural interventions.
- 3) Enrich statistical capacities to address sociostructural factors and interventions.
- 4) Expand training in research ethics to work with medically marginalized groups.
- 5) Develop the necessary collaborations and research infrastructure to enable academic independence as an NIH-funded investigator.

2) Lack of Significance/Innovation

- Goal: Proposal deals with an important, exciting topic re: public health and/or clinical decision-making, or moves the field forward.
- Consequences:
 - Reviewers will be bored, significance rating will significantly hamper overall score
 - Proposal has a hard time competing with others
 - Not clear what the next step for research program is
 - A beautifully designed study that has no real significance or innovation will not be funded

TIP: Provide examples of where alternative research findings may lead for a follow-on R01/R34

Table 3: Sample Intervention Strategies Based on K01 Findings	
Sample K01 Finding	Sample Intervention Strategy
HIV/STI is clustered in sex work venues that do not provide free condoms ¹⁷⁶ or in shooting galleries that lack access to sterile syringes.	Improve access to harm reduction supplies within targeted higher risk spaces.
Greater security at sex work venues (i.e. security guards, gates) supports safer sex or reduces drug use with clients	Promote better managerial practices and security measures within FSW venues where risk is greatest.
Safer injecting norms within venues are associated with a lower likelihood of receptive syringe sharing	Promote normative change within venues and networks demonstrating a culture of sharing syringes.

“And now, for the #1 fatal flaw of
K01 grant submissions...”





1) Overly Ambitious

- Goal:
 - Training and research aims are achievable
(Remember this is a training grant and not an R01)
 - Aims support one coherent PILOT project
 - Project should generate preliminary data to inform a future R01
- Tip: Map out a timeline for the training goals and the research aims with % time dedicated to each activity
- -Give examples of papers you will generate each year

Sample Timeline for Training/Research Activities

Table 1. K01 Activities Breakdown

TOPICAL TRAINING	Y1	Y2	Y3	Y4	Y5
Workshops, Coursework, Independent Study	50%	35%	10%	7%	5%
Consultation with Mentors	20%	20%	15%	15%	10%
RESEARCH/CAREER DEVELOPMENT					
Research Projects and Scientific Meetings	20%	30%	55%	55%	50%
Manuscript and Grant Preparation	7%	12%	17%	25%	32%

Table: Sample Papers from Proposed K01

Y1-2	Venue-based Correlates of HIV/STI among FSW
	Venue-based Correlates of Substance Use among FSW
Y3-5	Physical Venue Features: A Measure of FSW & PWID Risk Environments
	Venue-specific Predictors of HIV/STI among FSW-PWID
	Networks and Community Resilience among FSW-PWID
	Venue Affiliation Networks and HIV Risk Behavior among FSW-PWID

When your K01 Project is Overly Ambitious....

Consequences:

- Budget may not realistically support the aims
- Makes PI and mentor appear inexperienced; possible fatal flaw
- If you are funded, you stand to risk not being able to meet aims, which can risk your reputation

I WISH I'D BEEN A
JAZZ MUSICIAN.

I WISH MY
PARENTS HAD
PUSHED ME
HARDER.

I WISH I'D GONE
BACK FOR MY
DOCTORATE.

BEER
GOOD.

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Acknowledgements

- T32 DA023356 (National Institute on Drug Abuse)
- NIH Project officers for their support
- NIH reviewers, for their helpful critiques
- Our trainees, for allowing us to share their experiences

GOOD LUCK!