



# THE FELLOW

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## Ch-ch-ch-changes...

As a new academic year begins, we would like to first and foremost welcome everyone back to what we hope will be a great year! We are both very excited for the opportunity to co-chair DSSC this year, and we are happy to launch the fourth volume of *The Fellow*. As you all know, there will be no incoming cohort this academic year. In addition to this unique situation, this year will be marked by many changes, and we would like to take this opportunity to highlight a few of them.

Dr. Ram Cnaan, who has led our program for the last 5 years, will conclude his term as head of the doctoral program and step down at the end of this academic year. On behalf of the entire student body, we want to thank him for his continued guidance and support throughout the years.

We will also see substantial changes in our doctoral colloquium this year. A new series focused on research and coordinated by Itay Greenspan will meet six times a semester on Wednesday afternoons. In addition, Rosie Frasso received the Center for Teaching and Learning (CTL) Fellowship. In that role she will serve as a teaching resource for PhD and DSW students. She will also be organizing a series of workshops. The goal is to foster discussions between faculty and students around teaching, to help us all develop our teaching skills while we work towards earning CTL teacher certification (this can be helpful to those of us headed out on the job market). Finally, we welcome our new colloquia co-chairs, Joanna Bisgaier and Katy Kaplan, who will co-host two of Rosie's workshops and organize additional workshops focused on career development goals of doctoral students (such as grant writing, navigating the job market, and building collaborative relationships).

We wish you all a productive and enjoyable new semester, and please feel free to come to us with any questions, comments, concerns or suggestions.

- Maayan Schori & Mary Zhou, DSSC co-chairs

I am taking this opportunity to discuss two things. First, I will reflect on the program and then discuss changes in the colloquium.

As this is my only Fellow column this year, I am starting with a personal note. Many of you know that this year begins the sixth and last year of my term directing the doctoral program. I have enjoyed this role immensely and have found it gratifying. I am very proud of our graduates' success in the universities they are now serving and in the quality of our current doctoral students. It is a pleasure to work with dedicated and smart people. I see my role as challenging you to be the best researchers you can be, and you all have responded positively. While I will be sad to leave my position, it is a good process by which another,



more energized, professor will take over the program and will lead it to new heights. Our program is one of the field's elite programs, but there is always more that can be done, and it is time for new blood. And so it goes.

Many of you also heard about the planned changes in the doctoral colloquium series. I want to explain the changes and their logic. In previous years, the doctoral colloquium served as a means to help doctoral students get ready for the job market. The sessions were focused on issues like writing a CV, asking junior faculty to reflect on their job seeking process, providing a floor for mock job talks, teaching enhancement tips, and discussing the grant application experience. Later, a few bright doctoral students noted that the school lacks a research colloquium, and, with my support, the doctoral colloquium was transformed to a research focused one. Clearly, a top school without such a colloquium is missing the opportunity to enhance the research agenda. As such, the faculty and Dean decided to institute a new Research Colloquium series for the school. We hired one of our brightest doctoral students, Itay Greenspan, to coordinate this new series. The new research colloquium is planned to meet six times a semester and to feature a mix of methodological presentations, faculty's on-going research, and invited lecturers from other universities. Needless to say that you are expected to attend all of them as this is an important learning opportunity. Meanwhile, our doctoral colloquium will go back to its original intent and will serve your educational purposes. Please work with the volunteer coordinators and make sure to attend each and every session. Both series of colloquia are set with you in mind and your attendance is a reflection of how serious you are about your academic future.

Looking forward towards another productive and rewarding year.

- Ram A. Cnaan, Associate Dean for Research and Doctoral Education

## PEER REVIEW

We all work hard writing papers for classes, and many papers are worthy of more than just a letter grade. *The Fellow* provides an outlet to share unpublished manuscripts, essays, book reviews and editorials with colleagues in an effort to distribute ideas, spark debates, obtain feedback, encourage journal submissions, and support interdisciplinary collaborations. Full references are available upon request to the authors.

### Preparing an NIH Grant Application

by Karen Zurlo, PhD\* | [kzurlo@sp2.upenn.edu](mailto:kzurlo@sp2.upenn.edu)

In July, 2009, I attended the Sixth Annual Institute on Social Work and Aging (the Institute), a workshop whose purpose is to train junior scholars to apply for National Institute of Aging (NIA) grants. NIA is one of the 27 Institutes and Centers at NIH that provides leadership and financial support to researchers domestically and internationally. Although the NIH award process has gotten more competitive, as an attendee of the Institute, I was encouraged to apply for a junior investigator award and was told repeatedly that there are many funding opportunities available.

In his overview of the application process, Robin Barr, the Director of Extramural Funding at NIA, described four basic rules to follow when applying for NIH grants:

- If you don't apply, you don't get funded
- Know what to apply for
- Know when to apply
- Know what resources are available to help you

Additionally, we learned that there have been a number of recent changes in the NIH application process. For example, effective January 2009, NIH permits only one resubmission of an application. A more significant change to the application process pertains to the overall evaluation process of an application. Now an application is evaluated on five designated criteria scored by three assigned reviewers. Each criterion is rated on a scale of 1-9. A final score is calculated by taking an average score from the three reviewers' calculations. Following are the (5) new criteria used by NIH panels in reviewing grant applications:

- Significance – Does the study address an important problem? If the aims of your application are achieved, how will scientific knowledge or clinical practice be advanced?
- Approach – Are your conceptual framework, design, methods, and analyses developed adequately?
- Innovation – Is the project original and innovative? Does the project challenge existing

paradigms or clinical practice? Are you promoting a novel way to conduct your research?

- Investigators – Are the investigators appropriately trained and able to carry out the proposed work?
- Environment – Does the scientific environment in which the work will be done contribute to the probability of success? Letters of support are critical to this part of the application.

Once the applicant understands these five criteria, writing the research plan can commence. Your research plan should describe what you propose to do, why it is important and how you will do it. In your proposal, it is suggested that you include the following four main sections of your research plan: Specific Aims, Background and Significance, Preliminary Studies, and the Research Design and Methods. Additionally, make sure that these four sections are internally consistent. You also must show knowledge of recent literature and explain how the proposed research will further what is already known in your proposed area of study. In the section on the literature that you cite, be sure to reference all the methods and concepts that you have used. It is recommended that before you write your proposal, you consult with a statistician who can advise you about sample sizes and the amount of data you may need to collect. We learned that well-designed statistical methodologies can impress the reviewers most favorably! Also, consult the most current edition of the APA Manual. The sixth edition was published in July, 2009; it is easier to read and has an updated section on the use of web citations.

Going to the NIH website can also offer some basic guidance in this grant-writing process, which understandably can seem overwhelming to the junior investigator. As junior investigators, it is recommended that you begin the application process with the NIH Small Grant Program (R03), which provides support for pilot research that can lead to a subsequent individual research grant, an R01. The NIH Small Grant Program includes \$50,000 in direct costs per year for up to two years. Applicants should follow instructions in the NIH R03 program announcement: <http://grants1.nih.gov/grants/guide/pa-files/PA-03-108.html>

\* Karen Zurlo, PhD, is one of our most recent graduates. She is now an Assistant Professor at the School of Social Work at Rutgers University, New Brunswick.

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## Logistic Regression: Part 2

Last time, we talked about the logic of logistic regression. We know the term “logistic” refers to “log odds”. We also know the odds are the ratio of the “probability of event” to the “probability of no event”. One important characteristic of the odds is that there is no upper bound. In other words, once we express the probability with the odds, we can remove the upper bound of the probability. However, as we saw in the example in part 1, the odds still have a lower bound of 0, just like probabilities. Today, I deal with the magic of logarithms. Before moving toward log-odds or logistic, let’s review what is a logarithm or log.

In mathematics, the logarithm of a number to a given base is the power or exponent to which the base must be raised in order to produce that number. For example, the logarithm of 1000 to the base 10 is 3, because 3 is how many 10s you must multiply to get 1000: thus  $10 \times 10 \times 10 = 1000$ . The base 2 logarithm of 32 is 5 because 5 is how many 2s one must multiply to get 32: thus  $2 \times 2 \times 2 \times 2 \times 2 = 32$ . In the language of exponents:  $10^3 = 1000$ , so  $\log_{10} 1000 = 3$ , and  $2^5 = 32$ , so  $\log_2 32 = 5$ . The logarithm of  $x$  to the base  $b$  is written  $\log_b(x)$  or, if the base is implicit, as  $\log(x)$ . So, for a number  $x$ , a base  $b$  and an exponent  $y$  if  $x=b^y$  then  $y=\log_b(x)$ . One important characteristic of logarithms is that  $\log(0)$  always equals to negative infinity, regardless of the bases.

In statistics, we use the natural logarithm, a specific type of logarithm. The natural logarithm is the logarithm to the base  $e$ , where  $e$  is an irrational constant approximately equal to 2.718. Put simply,  $e$  is something like the circular constant Pi (3.14). Thus,  $\log_e 2.718$  approximately equals 1. Therefore, log odds, or logistics can be expressed by  $\log_e$  odds. Now let’s see the relationship among probability, odds, and log odds (logistic) in a table. When the probability is 0.5, the odds equal 1. Then how about  $\log_e 1$ ?  $\log_e 1$  is 0. (You can easily calculate this with Excel). This means that probability=0.5 can be expressed as log odds=0. Similarly, when the probability is 1 (upper bound), odds equals to positive infinity and log odds also equals to positive infinity. More importantly, when the probability is 0 (lower bound), odds equals to 0. As we saw last time, odds cannot remove the lower bound of probability. But how about log odds? As  $\log_e 0$  equals to negative infinity, probability=0 can be expressed as: log odds=negative infinity. This example shows that transforming the “probability” to a “log odds” removes both the upper and lower bound, making the probability

Probability	Odds	Log odds
0	0	-infinity
0.2	.25	-1.38
0.5	1	0
0.9	9	2.19
1	+infinity	+infinity

of 1 and 0 to positive and negative infinity respectively.

To sum up, logistic regression overcomes the limitation of probability by transforming dependent variables into log odds. Then how can we interpret the results of logistic regression? Basically, all statistic programs give the Beta as coefficients. For example, logistic coefficient beta of 0.18 tells us that the log odds increases by 0.18 for every one unit increase in a given independent variable. But can you understand the intuitive meaning of a 0.18 increase in the log odds? However, once we get rid of “log” from “log odds”, interpretation becomes much easier. Thus, many statistic programs also provide Exponential Beta ( $\text{Exp}(\text{beta})$ ) or odds ratio as another coefficient. When we transfer “log odds” of 0.18 into “odds”, it becomes 1.2. Now we can interpret this result like that: The odds increase by 1.2 for every 1 unit increase in a given independent variable. It is particularly helpful to subtract 1 from the Exponential Beta or odds ratio and multiply by 100. This result tells us the “percentage change” in the odds for each one unit in a given independent variable. Thus, we can say one unit increase in a given independent variable increases “the odds of dependent variable by 20%”  $(=(1.2-1)*100)$ .

*\*Tae Kuen Kim, PhD, is one of our recent graduates and author of “Applied regression: Data analysis for social science.” He is now an Assistant Professor at the School of Social Work at Adelphi University.*



### Did You Know...

*Did you know that you could receive free grant writing assistance? The Graduate Student Center (GSC) at Penn provides grant writing assistance by connecting graduate students with Grant Advisors. The Grant Advisor, who has had successful grant applications, and the graduate student, who is in the process of writing a grant, meet to discuss the proposal. The Grant Advisor offers insight, advice, and constructive criticism to the graduate student. For more information and to request assistance with your grant proposal visit <http://www.gsc.upenn.edu/navgrant/advisee.php#advisee>. This is a great opportunity for graduate students to get one-on-one help with their grant proposals! And it’s free...*

## Publications

**Cederbaum, J., & Klusaritz, H. A. (2009).** Clinical instruction: Using the strengths-based approach with nursing students. *Journal of Nursing Education*, 48, 422- 428.

**Cullen, S. W., Matejkowski, J. C., Marcus, S. C., & Solomon, P. (2009).** Maternal mental health and pediatric health care use among a national sample of Medicaid- and SCHIP-insured children. *Journal of Behavioral Health Services and Research*, Online August 7.

Stanhope, V., & **Matejkowski, J. C.** (in press). Understanding the role of individual consumer-provider relationships within assertive community treatment. *Community Mental Health Journal*.

**Lee, S., & Choi, S.** (in press). Disparities in access to health care among noncitizens in the U.S. *Health Sociology Review*.

## Presentations

Stanhope, V. & **Matejkowski, J.** (2009, January). Understanding consumer-provider relationships within a team case management model. Chicago SSA Centennial Symposium, Society for Social Work Research Annual Conference, New Orleans.

**Schori, M., & Lawental, E.** (2009, June). Description of and preliminary statistical data from the first substance abuse prevention and treatment project at an Institute of Higher education in Israel. Poster presented at the National Institute of Drug Abuse (NIDA) International Forum, Sparks, NV.

**Schori, M., Lawental, E., Altos-Drori, L., & Gur, M.** (2009, June). Group Reality Therapy (GRT): Is it an effective tool in working with opioid dependent young adults in Methadone maintenance treatment? Poster presented at The College of Problems on Drug Dependence (CPDD) Annual Scientific Meeting, Sparks, NV.

Levit, S., Schiff, M., **Schori, M., & Lawental, E.** (2009, June). Crisis Intervention in a Methadone Maintenance Clinic in Southern Israel during the War in Gaza. Poster presented at the National Institute of Drug Abuse (NIDA) International Forum, Sparks, NV.

## Funding/Jobs/Awards

**Arpita Chatterjee** was awarded the Applied Social Issues Internship Grant by Society for the Psychological Study of Social Issues for pursuing community research in June 2009.

**Rosemary Frasso** was awarded one of the Center for Teaching and Learning's Graduate Fellowships for Teaching Excellence for 2009-10. CTL Graduate Fellows are selected by the CTL faculty from nominees across the university.

**Jason Matejkowski**, Principal Investigator, was awarded \$50,000 from Minding Your Mind Foundation to investigate the impact of a public education initiative by assessing changes in student help-seeking behavior, quality of familial communication and school culture related to mental health.

**The Criminology Department** holds colloquium and seminar events, including guest lectures by current and former policy makers and criminal justice practitioners, throughout the year. Events are held on Wednesdays at the Jerry Lee Center of Criminology, 3809 Walnut Street. For more information check their website at <http://www.crim.upenn.edu/news.html> or get updated calendar information by joining their email listserv at: [khagans@sas.upenn.edu](mailto:khagans@sas.upenn.edu)

**The Leonard Davis Institute** holds weekly seminars addressing health services research, health policy, and health care management issues each Friday during the academic year from 12:00-1:30 at Colonial Penn Center. For more information check their website at <http://www.upenn.edu/ldi/calendar.html> or subscribe to the LDI Events RSS feed for regular updates.

**The Department of Sociology** offers a colloquium series on Wednesdays from 12:00-1:15 in Rm 103 of the McNeil Building. For information on dates and topics, check their website at <http://www.soc.upenn.edu/soc> [News Events/index.html](http://www.soc.upenn.edu/soc/News_Events/index.html)

In addition, the Sociology Department offers the following workshop series:

1. Family/Gender on Wednesdays from 8:30-9:45 in the Sociology Conference Rm. coffee and pastries provided
2. Race, Ethnicity & Immigration (time and place TBD): for information contact [rorya@sas.upenn.edu](mailto:rorya@sas.upenn.edu) or [ruthh@sas.upenn.edu](mailto:ruthh@sas.upenn.edu)

**The Wharton Politics and Business Association** hold regular seminars throughout the semester on a variety of domestic and international policy-related issues as well as a new Political Ticker Lecture Series. Past speakers have included Jacob Hacker (Fall 2008), and Joel Benenson, Barack Obama's chief pollster and senior adviser (Spring 2009). For more information check their website at [www.whartonpolitics.com](http://www.whartonpolitics.com).

**The School of Arts and Sciences** has a 60-second Lecture Series, which runs through the Fall and Spring semester and is a public event on Locust Walk. They don't have a calendar out yet, but the website is [http://www.sas.upenn.edu/home/news/sixtysec\\_lectures\\_archive.html](http://www.sas.upenn.edu/home/news/sixtysec_lectures_archive.html).

**The Drexel-Health Partners Grand Rounds Lecture Series** held at Drexel University's Center City Campus offers the public the opportunity to attend lectures and discussions addressing issues in public health practice and research. All lectures are held on Thursdays at 4:30 PM from October through May in the Geary Room A, New College Building, (unless otherwise noted). Check the Drexel website for specific topics and speakers: [http://publichealth.drexel.edu/academics/Drexel\\_Health\\_Partners\\_Grand\\_Rounds\\_Lecture\\_Series/123](http://publichealth.drexel.edu/academics/Drexel_Health_Partners_Grand_Rounds_Lecture_Series/123)