A Note of Gratitude for a Successful Year

This issue of the Fellow marks endings and new beginnings. The second volume has now come to a close, and as we look towards Volume 3, we can safely say that the Fellow has been firmly established as a tradition for the PhD students at SP2. Furthermore, we prepare to say farewell as DSSC co-chairs and look forward to new leadership from Itay Greenspan and Sungkyu Lee. It has been a great experience that will forever remain in our memories of our time at SP2.

Our role as co-chairs was made much easier by many people and we would like to thank them. Most importantly, we thank our fellow PhD students for their support and participation in the many events we organized this year. We would also like to thank Dr. Ram Cnaan for his continued guidance and support of the PhD students. Sungkyu Lee and Francis Barchi did an excellent job as Colloquium co-chairs and Jonathan Lukens and Brian Coleman faithfully served as our GAPSA representatives. Finally, the Fellow would not be what it is without the consistently rich contributions of Jason Matejkowski and Kim Tae Kuen and the behind-the-scenes work of Joel Caplan, Manisha Joshi, and Julie Cederbaum.

As we look ahead to the summer and the upcoming year, we welcome new faces to our SP2 family—new faculty members and new PhD students. In addition, we look forward to continued relationship building with the MSW and DSW students. We wish everyone a summer filled with adventure, challenge, and maybe even some time off! Whatever you do, make sure to take notes so you can write about it in Volume 3 of the Fellow.

Sincerely,
Kristie A. Thomas
Sara Wiesel Cullen
DSSC Co-chairs

PhD and MSW students (and future generations!) mingle at the April 10th Meet and Greet event organized by DSSC and the Student Council
Parent-Child Sexual Risk Communication Among HIV Infected Mothers  
by Julie Cederbaum | julieced@sp2.upenn.edu

Introduction

Virtually no country exists that is unaffected by HIV/AIDS. Once thought to be a problem among select “high-risk” populations such as men who had sex with men, intravenous drug users and sex workers, at present, the faster growing rates of new infections are found among heterosexual women and adolescent girls (CDC, 2007). Due to improved HIV treatment which has increased quality of life and lifespan for those who are infected, there is an explosion in the number of HIV-positive women who are parenting HIV-negative children. As these children come of age, we have the opportunity to better understand parent-child sexual risk communication among HIV infected mothers, and how this communication may influence their child’s decision to abstain from sex or reduce their HIV sexual risk behaviors.

Impact of Knowing Someone with HIV

As the number of people infected with HIV increases, so does the number of people living with HIV. Consequently, the number of individuals who know someone with HIV/AIDS will continue to grow. A 2001 survey (n=2683; nationally representative) found that more than four in ten Americans (43%) say that they know someone who is either living with HIV/AIDS or has died of AIDS, and more than one in three (37%) are personally concerned with becoming infected (KFF, 2001). Studies have also linked perceived risk and sexual risk behaviors (Burkholder, Harlow, & Wachkwich, 1999; MacNeil & Anderson, 1998). They have found that behavior change is influenced by the extent to which an individual feels personally at risk of contracting a disease that they perceive to have serious consequences, is aware of ways to avoid infection, believes that the benefits of taking preventative action outweighs the costs, and believes that such measures would work (Ajzen & Fishbein, 1980; Bandura, 1986). Burkholder and colleagues (1999) suggested that the ways people come to learn about a disease seem to play an indirect role in factors such as perceived risk. Knowing someone infected with HIV may reduce an individual’s belief that he/she has no chance of contracting HIV. MacNeil and Anderson’s (1998) findings show that familiarity with someone who is infected with the virus personalizes the risk and stimulates behavior change.

Having an HIV-Positive Parent

HIV-positive parents face several issues, some unique to having HIV/AIDS. These include fear, physical symptoms, disclosure to children and social networks, and depression (Armistead, Tannenbaum, Forehand, Morse, & Morse, 2001; Brackis-Cott, Mellins, & Block, 2003; Lee & Rotheram-Borus, 2002). Although children of HIV-positive parents are more likely to have reported discussing HIV, have had more frequent discussions about HIV, and express greater comfort with the topic (O’Sullivan, Dolezal, Brackis-Cott, Traeger, & Mellins, 2005), they may also be more likely to be at increased risk for sexually acquired HIV (Chabon, Futterman, & Hoffman, 2001). In their study to determine the number of youth with known sexually or injection acquired HIV, Chabon et al. (2001) found that 19 % of youth in treatment with sexually acquired HIV reported at least one parent with HIV infection. This may be because youth of HIV-positive mothers are often exposed at an early age to the same factors that placed their mothers at risk for HIV infection (Havens, Mellins, & Ryan, 1997). One study of adolescent daughters of HIV-positive mothers found that half had initiated sexual activity before the age of 14, 70% reported unprotected intercourse, 52% reported alcohol use and 41% reported illicit drug use (Lee et al., 2002). Mellins and colleagues (2005) found that in children of HIV-infected mothers, having previously engaged in sexual intercourse was significantly associated with having ever used alcohol and drugs.

To date, only one study has been found that specifically evaluates the impact of maternal HIV serostatus on engagement by adolescents in HIV risk behaviors (Mellins et al, 2005). More information about this population is needed to better understand their HIV risk reduction needs. Although there has been some research done with this group, as a whole, we know little about the impact of HIV serostatus on communication, the beliefs about risk for HIV infection by adolescent girls, and the impact of having an HIV-positive parent on engagement in risk behaviors.
As mentioned last section, regression analysis simply refers to the statistical technique that analyzes the relationship between one dependent variable and one or more independent variables. Since regression analysis can have various types, researchers sometimes use the term “regression family.” Regression analysis is divided into specific types according to the composition of variables as well as the estimation methods, and therefore has different names. The complete names of regression analysis notify the unique features of each specific regression. The first criterion is the number of independent variables. If a regression has one independent variable, we call this “simple regression” and if it has two or more independent variables, we call this “multiple regression.” Second, the characteristics of the dependent variables determine the type of regression. If a dependent variable is continuous, we use “linear regression” and if a dependent variable is categorical, we use “logistic regression.” Finally, the names of the regression analysis include the method used to estimate the regression equation. The terms, such as ordinary least squares (OLS), weighted least squares (WLS), or maxim likelihood (ML), all indicate how to calculate the best regression equation. Thus, the full name of each specific regression is relatively long. For example, “ordinary least squares multiple linear regression” refers to a regression which has two or more independent variables (multiple) and a continuous dependent variable (linear), and is estimated by OLS method. However, we simply call this “multiple regression” or “linear regression.”

The biggest advantage of regression analysis is that researchers can simultaneously analyze the effects of separate variables on dependent variables. Hence, in real research, we rarely use “simple regression” which consists of one independent and one dependent variable. Since simple regression, however, clearly shows the logic of regression analysis, it is a good starting point to understand regression. Let’s suppose that a researcher wants to examine the effect of IQ (independent variable) on a math score (dependent variable). If we develop an equation to express the relationship between two variables and estimate the value of a math score based on a selected value of IQ, we may identify the effect. The equation used to estimate dependent variable (Y) based on independent variables (X) is referred to as the “regression equation.” Then how can we find the most appropriate regression equation? The first step is to decide the form of the equation. While there are a number of mathematical equations with which we can express the relationship between two variables, the simplest form is “linear equation” like this: \( Y = a + bX \), where \( a \) is called the “intercept” and \( b \) is called the “slope” or “coefficient.” For example, we may express the relationship between IQ and math score like this: \( \text{MATH} = 5 + 0.8 \times \text{IQ} \). This equation tells us that the math score goes up by 0.8 for one unit increase of IQ. In addition, we can predict the math score of a given individual who has a certain IQ. The math score of an individual with an IQ equaling 100, for instance, may be estimated by 85 (= 5 + 0.8*100).

Using a linear equation means that we assume the relationship between two variables can be expressed by a straight line. The most characteristic feature of a straight line is that the direction is always the same. In our example, an increase in IQ always increases the math score. On the other hand, many social phenomena may not be expressed by a straight line. For example, let’s look at the relationship between age and income. As age increases, income first increases, then reaches a maximum, and then decreases, drawing a curve-liner line. Is it sensible to use a linear equation for all regression analysis? Or do we have to use various nonlinear equations? Regarding this question, P. Allison, a professor at Penn, lucidly states the reason to use the linear equation: “…there is no reason to think that nonlinear is any better than the linear equation. A useful general principle in science is that when you don’t know the true form of a relationship, start with something simple. A linear equation is the simplest way to describe a relationship…” Yes, it is very true. Moreover, by slightly modifying the linear equation, we can better explain the nonlinear relationship, as you will see later. Therefore, we use the linear equation as the basis of regression analysis. The second step is to find the best straight line which best represents the relationship between two variables. The next section will introduce how to determine the best straight line using a mathematical method called the least squares principle.

* Kim is a Ph.D. candidate & author of "Applied regression: Data analysis for social science.”

Did You Know...
Penn students can download digital music safely, legally and at no charge. The service allows students to access more than 1.5 million music tracks and is free for current students on or off campus. Unlimited downloads of music can be played on your personal computer (not transferrable to iPod or cd). To get started just go to www.ruckus.com and sign up.
Gray literature: Resources for locating unpublished research

Gray literature is commonly defined as any documentary material that is not commercially published and is typically composed of technical reports, working papers, business documents, and conference proceedings. The greatest challenges involved with these items are the process of identification, since there is limited indexing. Added to this is the absence of editorial control, raising questions about authenticity and reliability. Yet despite these considerations, gray literature is continually referenced in scholarly articles and dissertations. Below are a few Web sites that aid in understanding the nature of gray literature as well as various search tools. The focus is upon freely available resources that offer some full-text coverage.

- The Role of Grey Literature in the Sciences. Provides a concise overview of gray literature and offers insight regarding its impact on the sciences: http://library.brooklyn.cuny.edu/access/greyliter.htm

- NY Academy of Medicine: Grey Literature Page. Focuses on gray literature resources from the medical field and includes an extensive listing of agencies and organizations that produce health-related materials. The site also features a quarterly "Grey Literature Report," listing many items that are available online: http://www.nyam.org/library/pages/grey_literature_report

- Cogprints. This self-archive provides material relevant to the study of cognition in the areas of psychology, biology, linguistics, and philosophy, as well as in the computer, physical, social, and mathematical sciences. The site includes full-text access to articles, chapters, technical reports, and conference papers: http://cogprints.ecs.soton.ac.uk/

From: http://www.ala.org/ala/acrl/acrlpubs/acrlnews/backissues2004/march04/greylit.cfm