

Contribution to Science

S. Marie Harvey, DrPH, MPH

Associate Dean for Research & Graduate Programs and OSU Distinguished Professor of Public Health

1. **New and existing prevention methods which are acceptable to women and within their personal control.** I began my research career with a focus on women and the prevention of unintended pregnancy. The epidemics of STIs, however, altered my program of research in the early 1990s and I moved beyond the focus of pregnancy prevention to address both pregnancy and disease prevention. To that end, I have led research over the past several decades that has informed the development of new and existing methods to prevent unintended pregnancy and the transmission/acquisition of disease that are acceptable to women and within their personal control. Multiple methods for preventing STIs/HIV and pregnancy are needed so that women have choices. Of particular importance are female-controlled methods that women can use without their male partner's knowledge and cooperation. These studies have focused on the vaginal sponge and the vaginal diaphragm both funded by NICHD, and emergency contraception pills (ECPs). A significant accomplishment of these projects was the development of the Contraceptive Attributes Questionnaire (CAQ) and evaluation of its psychometric properties. The CAQ is an instrument designed to assess the subjective importance of specific contraceptive attributes and the perceived characteristics of specific contraceptives. Findings from these studies informed the development of new methods and were influential in the approval by the FDA in 1999 of Plan B (a form of ECPs) for prescription use for women of all ages. In 2006, Plan B was approved by the FDA as an over-the-counter ECP for women ages 18 years and older. In July 2015 the SILCS diaphragm, a single-size diaphragm, became available by prescription from healthcare providers in the United States. This non-hormonal contraceptive option was developed to be easy for women to use and for clinicians to provide and represents another step toward expanding contraceptive options for women.
 - a. Harvey SM, Beckman LJ, Murray J. Factors associated with use of the contraceptive sponge. *Fam Plann Perspect.* 1989 Jul-Aug;21(4):179-83.
 - b. Beckman LJ, Harvey SM, Murray J. Dimensions of the contraceptive attributes questionnaire. *Psychol Women Q.* 1992 Jun;16(2):243-59.
 - c. Harvey SM, Beckman LJ, Sherman C, Petitti DB. Women's experience and satisfaction with emergency contraceptive pills. *Family planning perspectives.* 1999; 31(5):237-239,260.
 - d. Harvey SM, Bird ST, Maher JE, Beckman LJ. Who continues using the diaphragm and who doesn't: implications for the acceptability of female-controlled HIV prevention methods. *Womens Health Issues.* 2003 Sep-Oct;13(5):185-93.
2. **Male involvement in pregnancy and disease prevention with a focus on young adult Latinos.** Although my early work was limited to women, I was compelled to move beyond including only women in my studies to also examine men's involvement in sexual decision-making and risk-taking. Starting in the early 2000s, my colleagues and I documented that men are active participants in sexual decision-making and many factors influenced pregnancy and disease prevention among men. Factors included relationship power, attitudes toward condoms, stronger partner condom norms and greater participation in decision-making about condom use. Among a sample of immigrant Latino men residing in rural communities we found that migration-related individual, sociocultural, structural and environmental factors interacted to render immigrant Latino men at increased risk for HIV/STI and influenced use of sexual and reproductive health services. We have continued to include men as well as women in our studies and to address the role of relationship factors and dynamics in safer sex practices.

- a. Harvey SM, Bird ST. Power in relationships and influencing strategies for condom use: Exploring cultural beliefs among a sample of African American men. *International quarterly of community health education*. 2003; 21(2):145-160.
 - b. Harvey SM, Henderson JT. Correlates of condom use intentions and behaviors among a community-based sample of Latino men in Los Angeles. *J Urban Health*. 2006 Jul;83(4):558-74.
 - c. Winett L, Harvey SM, Branch M, Torres A, Hudson D. Immigrant Latino men in rural communities in the Northwest: social environment and HIV/STI risk. *Cult Health Sex*. 2011 Jun;13(6):643-56.
 - d. Harvey SM, Branch MR, Hudson D, Torres A. Listening to immigrant latino men in rural Oregon: exploring connections between culture and sexual and reproductive health services. *Am J Mens Health*. 2013 Mar;7(2):142-54.
3. **Influence of relationship dynamics on protective behaviors and sexual risk-taking among at risk young adults.** In addition to including men in our studies, we adopted a more inclusive theoretical framework and included variables to examine how relationship status and relationship characteristics/dynamics influence protective behaviors and sexual risk-taking among unrelated samples of men and women. Interpersonal relationships have particular relevance in the area of reproductive and sexual behaviors because the behaviors and outcomes of interest often, but not always, take place within the context of a relationship. For example, condom use is an example of an interdependent behavior because it requires the participation/cooperation of both members of a sexual dyad. Collectively this body of work provides evidence that both men and women are involved in joint decision-making regarding sexual issues; greater decision-making power increases intentions to use, actual use as well as consistency of condom use among women; and committed, long-term relationships likely mitigate condom use. Taken together, these findings suggest the importance of both studies and interventions that 1) focus on the relational context (relationship-based intervention); and 2) include couples in research efforts (couple-based interventions). With funding from NICHD (R01 and R03) for the Project on Partner Dynamics (POPD) I am continuing to pursue this program of study. This project employed a novel prospective methodological approach for measuring and modeling the dynamics of sexual partnerships over time. Data were collected from men, women and couples and assessed multiple relationship experiences.
- a. Harvey SM, Bird ST, Galavotti C, Duncan EA, Greenberg D. Relationship power, sexual decision making and condom use among women at risk for HIV/STDS. *Women Health*. 2002;36(4):69-84. Harvey SM, Bird ST. What makes women feel powerful? An exploratory study of relationship power and sexual decision-making with African Americans at risk for HIV/STDs. *Women Health*. 2004;39(3):1-18.
 - b. Harvey SM, Beckman LJ, Gerend MA, Bird ST, Posner S, Huszti HC, Galavotti C. A conceptual model of women's condom use intentions: Integrating intrapersonal and relationship factors. *AIDS Care*. 2006 Oct;18(7):698-709.
 - c. Warren JT, Harvey SM, Washburn IJ, Sanchez DM, Schoenbach VJ, Agnew CR. Concurrent sexual partnerships among young heterosexual adults at increased HIV risk: types and characteristics. *Sex Transm Dis*. 2015 Apr;42(4):180-4.
4. **Couple studies: Prevention of unintended pregnancy and STIs among young Latino adults.** Because of their cost, complexity and difficulties, only a few studies have investigated couples' decision-making and influence patterns concerning condom and contraceptive use. Findings from an earlier review of reproductive health interventions in developed and developing countries indicated that reproductive health interventions targeted to couples were more effective than those targeted at only male or female partners. These data compelled us to focus our efforts on interventions within intact couples and to intervene with both members of a couple. Fundamental to this concept is the simplistic idea that it takes two to tango, two to prevent the transmission of STDs, and only couple studies can fully address issues involved in understanding the relative influence of each member of a sexual dyad. In an exploratory study with couples of Mexican

origin (funded by CDC) with the overall goal of understanding the role of each partner in decision making about sexual and reproductive matters, we found that whereas couples shared decision making about sexual activities and contraceptive use, men were seen as initiators of sexual activity and women were more likely to suggest condom use. Building on this study and with funding from CDC we designed, implemented and evaluated (using a RCT) a couple-based intervention designed to reduce the risk of STIs and unintended pregnancy among young adult women and their male partners. We found no difference in contraceptive use or condom use between couples in the relationship-based intervention and couples in the educational control condition. Instead we found that reports of both contraceptive use and condom use increased in both the couple-based intervention and couple-based control conditions. The most plausible theoretical explanation for our findings is that bringing couples together for education about the prevention of HIV/STIs and unintended pregnancy may have been sufficient for prompting individual and relationship changes that led to increased condom use. The fact that both conditions were implemented with couples may have been more important than the specific content or format of each condition. Taken together, this work has played a significant role in the development of a research agenda for understanding the relational context for different types of dyads and how these qualities influence protective behaviors. In June 2013, I was an invited participant at the NICHD workshop on “Developing a Research Agenda for Addressing Mistimed, Unintended, Unplanned Pregnancy in the US” and presented on “Couples, Relational Context and Contraceptive Use: Gaps in the Research Fabric.”

- a. Harvey SM, Beckman LJ, Doty M. *Advances in Population: Psychosocial Perspectives Vol. 3*. Severy LJ, Miller W, editors. London: Jessica Kingsley Publishers; 1999. Couple dynamics in sexual and reproductive decision-making among Mexican immigrants; p.251-279.
- b. Harvey SM, Beckman LJ, Browner CH, Sherman CA. Relationship power, decision making, and sexual relations: an exploratory study with couples of Mexican origin. *J Sex Res.* 2002 Nov;39(4):284-91.
- c. Harvey SM, Henderson JT, Thorburn S, Beckman LJ, Casillas A, Mendez L, Cervantes R. A randomized study of a pregnancy and disease prevention intervention for Hispanic couples. *Perspect Sex Reprod Health.* 2004 Jul-Aug;36(4):162-9.
- d. Harvey SM, Kraft JM, West SG, Taylor AB, Pappas-Deluca KA, Beckman LJ. Effects of a health behavior change model-based HIV/STI prevention intervention on condom use among heterosexual couples: a randomized trial. *Health Educ Behav.* 2009 Oct; 36(5):878-94.