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Designing Research On Health Risk Behaviors: Questioning the Assumptions

The report "Associations with High-Risk Sexual Behavior" in this issue by Steiner and his colleagues[1] raises many issues that invite further discussion and exploration. Certainly, with the rise in rates of persons positive for human immunodeficiency virus (HIV) infection, research on understanding primary prevention of this disease is timely and relevant.

Early attempts at research into the behavioral correlates of population groups with disproportionately high HIV positivity rates initially focused on the information base of the population. Since then, several well-documented studies have reported that information by itself is not sufficient to prompt behavioral change that protects against HIV exposure.[2,3]

Submitted 18 February 1994.

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This finding that information is not sufficient to change behavior should come as no surprise. We have, over the years, ample evidence that knowledge of adverse effects of tobacco use, driving while under the influence of alcohol or other drugs, sedentariness, and dietary excessive fat, all of which result in risk to health in the long run, do not predictably motivate persons to change their behavior.

The next question becomes, if information is not enough, what then is needed additionally for individuals to make good decisions about protecting themselves against life-threatening illness?

One of the difficulties of past research in this area is that we have assumed that there is one central reason persons engage in behaviors that jeopardize health. We keep looking for the "magic bullets" that, if discovered, would allow us to design programs which keep populations from taking risks with their health. Unfortunately, the solution is not so simple. There is neither one reason nor one intervention that will address the problem of HIV prevention or the prevention of other diseases when it is within an individual's power to protect his or her health. The reasons African-American men, African-American women, white women, Hispanic women, and others jeopardize their health and expose themselves unnecessarily to HIV are multiple and complex; they are rooted in reasons that can be viewed from three perspectives: the individual perspective, the family or social unit perspective, and a larger societal perspective.

At the individual level, actions about health behavior are influenced by information (both accurate and inaccurate), by the belief that the information pertains to oneself (sense of vulnerability or invulnerability), by the motivation to protect one's health (belief that one's life is worth protecting), and by the freedom and ability to make good choices about health. This latter issue is an area of skill development particularly pertinent for adolescents. Many young persons know the correct information, might or might not believe that it pertains to them, wish to be healthy into adulthood, but lack the interpersonal skills to say "no" to a partner pressing for sexual intercourse without a condom.

At the social unit and family level, the factors that most commonly affect health risk of individuals are peer or group norms (belief and accept-

ability of condom use as good and supported by one's peer group), the influence of family, and the influence of the larger cultural or ethnic group (which is often mediated through the family setting). It has been well documented that adolescents often adopt both the beliefs and behaviors of their closest peer group,[3,4] because adolescence is the developmental period in which peer opinion and belonging to a group are of critical importance. Indeed, the study by Steiner, et al. reconfirms this finding. The influence of family and other important adults becomes a powerful positive factor in three ways: as a reinforcement of the belief in the value of self; as a forum in which to discuss information, peer norms, and belief in invulnerability; and as a transmission of family and cultural value systems, which provide a framework for all decisions about one's behavior.

At the societal level the health behavior of individuals is affected directly and indirectly in many ways, but most commonly by the media, by the willingness of society to invest in health care for everyone, and by insuring opportunities for youth and young adults that give them sound reasons to protect their health at the individual level. This latter issue is probably a critical one in the Steiner, et al. study.

Too often, in our research and discussions on health problems of the poor, we fail to see that the decisions individuals make about their health behavior which might seem misguided are actually logical and perhaps the healthiest possible adaptation to unhealthy environments. For example, when those who make poor decisions about HIV risk are asked, they often state that there is no opportunity for an adult life that is productive and valued by the larger culture. Or, when an adolescent girl becomes pregnant at the age of 14 or 15 years, this pregnancy might insure better health care, more attention and support from family, an interpersonal relationship that has meaning, and a perceived source of food and shelter. Additionally, if this adolescent young woman lives in a family in which her mother had children early (and is a good mother), her peers approve of early pregnancy and she sees no successes for herself in her educational environment and no hope for meaningful future employment, pregnancy might be a logical choice from her perspective. For some, with little perception of future opportunity, what appears as a "bad" decision about behavior that risks health could actually be seen as a logical choice or at least an understandable decision.

Thus, there are enormous difficulties inherent in designing research that uncovers the underlying reasons individuals put their health at risk. When we rely on this research to help inform our plans for better interventions and preventive efforts, the importance of the task carries additional weight. Research on why individuals make "bad" behavioral choices that jeopardize health is newly charted territory, and we must find ways to approach this research that are not minimalist and thus meaningless. Table 1 offers questions to consider in designing research and interventions aimed at the reduction of risk-taking behaviors.

Several cautions, as illustrated in the research by Steiner and his colleagues, apply. We must be careful about the conclusions implied by both our results and our selection of population groups. In this case, indeed, African-American men in urban settings are at more risk for HIV than many other groups; however, opportunity deficits and poverty, not race, could be the significant variables. This study mixes adolescents who are young with "adolescents" who are up to age 29 years. Perhaps,

Table 1. Questions to Consider in Designing Research and Interventions Aimed at the Reduction of Risk-taking Behaviors.

Individual Level
1. Does the individual have the correct information to make good decisions about health-related behavior?
2. Does the individual believe that the information pertains to him or her?
3. Does the individual believe his or her life is worth protecting?
4. Does the individual have the emotional, cognitive, and social maturity to make good decisions about health behavior?
5. Does the individual have the necessary resources to carry out good decisions about health behavior?
Family and Social Unit
1. In what ways does the individual's peer group support or resist positive health behavior?
2. What family support and beliefs impact the individual's decisions about health behavior?
3. What are cultural and ethnic beliefs about health behavior?
Societal
1. What are the predominant media messages about health or risky behavior?
2. Does the society value this individual's health enough to support health care?
3. What opportunities does the larger society provide for the individual as an incentive to protect health?

as the authors suggest, there are some developmental similarities. More likely, however, the similarities that link these groups are again those of poverty and perceived lack of opportunity.

The group studied by Steiner, et al., although among the highest risk groups for HIV positivity, is not the only one with disproportionate risk. Nonwhite women, both Hispanic and African-American women, show a rapid rate of increase in HIV positivity in this country, but relatively little research has been done among these groups.[5] Understanding the issues of these two groups of women, as well as those of the adolescent population, is a crucial focus for ongoing research and subsequent intervention efforts.

In doing research about any behaviorally based disease, it is critical to our ultimate success in designing intervention programs to remember that the reasons individuals choose to jeopardize health are multifactorial and differ over time for any person or group. A corollary follows: different interventions are needed for different individuals and groups. For urban men and women in poverty, the interventions might need to be at the community and societal level, addressing poverty and hopelessness. For many adolescents the interventions might need to be at the social skill level, the peer influence level, and the media level. For gay men the intervention that seems to have made a large difference was at the information level.

Just as it is important that we understand the multiple reasons that individuals put their health at risk, we also must research the reasons why some persons do well at protecting their health. These protective factors that usually lie at the social unit and societal level could be the building blocks of effective preventive efforts. Finally, this study reminds us to ask, in our research efforts, who is left out and why have they been left out. In this case, because the reasons poor African-American men take risks with HIV exposure might be different from the reasons poor women take risks, it is legitimate to separate them in terms of initial research. In this initial discussion, however, one must acknowledge the importance and magnitude of the health issue for other groups that also have disproportionate risk; otherwise, we fail to address the needs of women, as has repeatedly occurred.

As we develop research in this area, we must continue to explore the multiple reasons that individuals take risks with their health — outlining a research strategy that investigates these multiple reasons among differing populations and then designing interventions which aim at the individual, at social and family units, and at larger societal influences. If we do this research well, we will inform and improve our efforts in primary prevention of behaviorally based disease.

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