The Long-Term Outcome of a Personal Network-Oriented HIV Prevention Intervention for Injection Drug Users: The SAFE Study

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Social influence processes have been found to affect numerous drug and health-related behaviors. We postulated that by using a network-oriented intervention it may be possible to capitalize on social influence processes to reduce human immunodeficiency virus (HIV) risk behaviors. The present study used an experimental study design for delivering a psychoeducational acquired immunodeficiency syndrome (AIDS) preventive intervention to injection drug sharing networks. Participants were recruited from the ALIVE study, an epidemiological study in Baltimore. In the present paper we examine the self-reported behavioral outcomes of 117 injection drug users 18 months after the baseline interview. HIV seronegative experimental participants reported significantly less frequent needle sharing and less injecting of heroin and cocaine than controls. In multiple logistic regression models of HIV seronegative participants, there was a significant negative association between assignment to the experimental group and the HIV-related behaviors of needle sharing and sharing of cookers in the prior 6 months; controls were 2.8 times more likely than experimentals to report needle sharing and were 2.7 times more likely to report sharing cookers. The results of this 18-month follow-up suggest that among injection drug users network-oriented interventions may be a promising approach to HIV prevention.

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Injection drug users continue to have high human immunodeficiency virus (HIV) seroconversion rates, and male injection drug users are a major source of HIV infection for women and their children. HIV/acquired immunodeficiency syndrome (AIDS) prevention interventions for injection drug users have had mixed results. Reviews of HIV/AIDS prevention studies (Fisher & Fisher, 1992; Magura, Qudsia, Shapiro, et al., 1991) have pointed out methodological inadequacies of the majority of interventions: some lack comparison groups, few include control groups, and many studies assess only changes in knowledge of HIV/AIDS risk or intentions to change behaviors. Almost all quasieperimentally designed interventions (i.e., those without a control group) report evidence of reduction in risk behaviors (Magura, Grossman, Lipton, et al., 1991). However, the results of experimental interventions often reveal that the control group improves as much as the experimental group. A few experimental behavioral studies have reported risk reduction in injection drug users. Stephens, Feucht, and Roman (1991) found self-reports of HIV risk reduction. The study, however, did not use random assignment. Sorenson et al. (1994) conducted an experimental preventive intervention with random assignment of methadone maintenance and detoxification patients. In the experimental condition patients received 6 hours of psychoeducation. Although the authors found pronounced decreases in self-reported risk behaviors immediately after the intervention, at a 3-month follow-up they found little evidence of sustained reduction in injection-related risk behaviors. In our previous 90-min educational intervention with injection drug users we failed to find posttest differences between the experimental and control groups (Mande|l, Latkin, Oziemkowska, Vlahov, & Celentano, 1993). In postintervention debriefings many participants reported that their drug-sharing partners impeded their efforts at risk reduction. These results led us to an intervention strategy of targeting drug-sharing networks in order to guide intranetwork social influence processes to reduce HIV-related behaviors.

Social influence, especially by friends, has been found to affect numerous drug and health-related behaviors (Gottlieb, 1985). Several studies have suggested that perceived normative expectations and peer pressure are determinants of risky injection behaviors (Des Jarlais, Friedman, & Hopkins, 1985; Friedman et al., 1987; Magura et al., 1989). Ethnographic studies have identified various social factors found to support needle-sharing practices (Page, 1990). To date, most HIV preventive interventions have been individually oriented; social factors, such as peer influence, have sel-