Social Support Networks and Primary Care Use by HIV-Infected Drug Users

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HIV-infected current and former drug users utilize primary care and preventive health services at suboptimal rates, but little is known about how social support networks are associated with health services use. We investigated the relationship between social support networks and the use of specific types of health services by HIV-infected drug users receiving methadone maintenance. We found that persons with greater social support, in particular more social network members or more network members aware of their HIV status, were more likely to use primary care services. In contrast, social support networks were not related to emergency room or inpatient hospital use. Interventions that build social support might improve coordinated and continuous health services utilization by HIV-infected persons in outpatient drug treatment.

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HIV-infected drug users have low rates of coordinated and continuous health care use (Arno et al., 1996; Cunningham et al., 2006; Knowlton, Hoover, Chung, Celentano, Vlahov, & Latkin, 2001; Shapiro et al., 1999) but disproportionately high hospitalization rates (Fleishman et al., 2005; Yehia, Fleishman, Hicks, Ridore, Moore, & Gebo, 2010). Although clinical care models integrating primary care and substance abuse treatment have been associated with improved health care utilization and better HIV outcomes (Cunningham, Sanchez, Li, Heller, & Sohler, 2008; Cunningham et al., 2007; Knowlton et al., 2001; O'Toole, Pollini, Ford, & Bigelow, 2007, Selwyn, Budner, Wasserman, & Arno, 1993),

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little is known about other factors that influence primary care use. In particular, it is unknown how social support affects the use of primary care by HIV-infected drug users.

Previous research has shown that greater social support is associated with primary care use, while poor social support is associated with the use of emergent and inpatient care. For example, Samet and colleagues (1998) demonstrated that delays in access to health care services after HIV testing were related to the absence of specific social network members (e.g., spouses/partners). Similarly, Devillanova (2008) found that having a strong social network was associated with a 30% reduction in wait time for medical care among immigrants. Conversely, Kouzis and Eaton (1998) found that the combination of psychological distress and poor social support was associated with more medical provider visits, and others have found that lack of a supportive social environment was related to increased hospital use (Bosworth & Schaie, 1997).

To examine the association between social support and use of primary health care among HIV-infected drug users, we used Anderson's behavioral model of health care utilization (Anderson, 1968), including subsequent revisions of the model (Anderson, 1995). In its earliest phase, the model focused on individual-level determinants of health service utilization: an individual's predisposing characteristics (demographic factors), enabling resources (income, health insurance, source of care), and perceived need for health services (perception of general health and functional state; Anderson, 1968). However, the initial model was criticized for lack of explicit focus on social networks (Bass & Noelker,1987; Pescosolido, 1992; Portes, Kyle, & Eaton, 1992). Acknowledging these variables at a later date, Anderson (1995) inserted them as structural-level variables (e.g., community-level networks, culture) or enabling resources (e.g., social support networks, quality of social relationships). In this study, we tested how one enabling resource – social support networks – affected health care use among HIV-infected drug users.

We hypothesized that features of a person's social relationships – greater social support – were related to increased use of primary health care (Nyamathi, Leake, Keenan, & Gelberg, 2000), while poor perception of social support was related to inpatient and emergency service use (Bosworth & Schaie, 1997). In this study we specifically defined social support networks as the density, quality, and characteristics of a person's social support network. Greater perception of social support from networks would include the following: greater density of network members; greater emotional, affirmative, or concrete support; and supportive types of network members (e.g., a family member, partner, or someone aware of their HIV status). Poor perception of social support would include fewer social support network members, lower quality of social support, and potentially unsupportive network members (e.g., drug-using network members).

Methods

We analyzed data from the Support for Treatment Adherence Research through Directly Observed Therapy (STAR*DOT) study (Berg et al., 2009), a randomized trial designed to test the efficacy of an antiretroviral directly observed therapy (DOT) program in methadone maintenance clinics. The parent STAR*DOT study was a 24-week trial conducted in a network of 12 methadone maintenance clinics in the Bronx, New York. The clinics, administered by the Albert Einstein College of Medicine and Montefiore Medical Center, provided care to approximately 4,000 clients, of whom 10%–15% were HIV infected. On-site integrated HIV care was available to all participants, although not a requirement for entry into the parent study.

STAR*DOT participants were recruited and interviewed at their methadone clinics. Participants were randomly assigned to self-administer their antiretroviral medications (treatment as usual) or to receive antiretroviral DOT delivered in the methadone clinic. The primary outcomes of the parent study were: (a) changes from baseline to study end in HIV viral load, (b) antiretroviral adherence, and (c) number of drug resistant mutations of HIV. Participants were eligible for the STAR*DOT study if they were HIV infected, prescribed antiretroviral therapy, received HIV medical care at a clinic affiliated with their methadone clinic, attended the methadone clinic 5 or 6 days per week, were on a stable dose of