

Injection Drug Users' & their Caregivers' Social Network Factors Associated with IDUs' Viral Suppression

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IDU & HIV health disparities

- IDU contributes to a quarter of US HIV/AIDS cases
- IDU is associated with poor treatment outcomes
 - Besides drug use, IDU is associated with depression, homelessness, & other impediments to medical adherence
- Three-quarters of US IDU PLHAs are African American
 - So IDUs' poor treatment outcomes contribute to racial disparities in HIV/AIDS outcomes

Informal HIV caregiving & medical adherence

- Caregiving is often defined as unpaid instrumental or emotional support to a person with a chronic condition
- Informal caregiving often evolves within supportive relationships over time as recipients' illness progresses & care needs increase
- Caregiving is associated medical adherence
 - Instrumental support is the form of social support most strongly associated with medical adherence across a range of chronic conditions (Di Matteo 2004)

Caregiving & IDUs' HIV medical adherence

- Our research suggests the majority of US IDU PLHAs have support networks & informal caregivers (Knowlton et al 2004, 2007)
- This is consistent with research indicating that low income AAs provide disproportionately high levels of caregiving, including for HIV/AIDS (Turner et al 1994)
- Our prior studies indicated that IDU PLHAs' instrumental & emotional support was...
 - Associated with optimal use of outpatient medical services
 - Predictive of viral suppression among those on HAART (Knowlton et al 2005; 2007)

Caregiving research: outcomes of interest

- Most caregiving research aims to promote continuity of caregiving, especially for those severely impaired
- Few studies on caregivers have examined caregivers' effects on recipients' medical adherence
- Caregivers' own support & other social environmental factors may affect the effectiveness & continuity of their caregiving
 - Most caregivers are mostly women who often have additional caregiving roles which may conflict with their HIV caregiving
 - Child caregiving is associated with poor engagement in HIV care (Stein 2000)
 - CG is often socially isolating, particularly in late stage illness & contexts where CG is stigmatizing, which may compromise support available to CGs
 - HIV CGs report high levels of perceived caregiving-related stigma
 - Most had low social support, which was associated with caregiver overload & other risks of CG burnout (Mitchell & Knowlton, 2009; 2011)

Support networks & medical adherence

- Social network methodology can be used to delineate social environmental factors associated with health
 - Structures (size) & functions (support or negative support)
- Support networks operationalized
 - Identifies persons providing main forms of support
 - Emotional, instrumental, financial, informational (health advice), & socialization (have fun with)
 - Ties primarily informal, at least 6 months duration

Study aim & objective

- The study aim was to inform the development of interventions to promote continuity of effective care to IDU PLHAs
- We sought to identify support network factors of IDUs and their caregivers associated with IDUs' viral suppression

Methods

- From baseline of the Beacon study (2006-11)
- Former or current IDUs on HAART (indexes) were recruited mainly from an academic HIV clinic
- Indexes were asked to recruit their CGs
- Sample: n=383 indexes, n=385 caregivers
 - 67% of indexes had a CG enrolled
 - Of CGs, 46% were partners, 29% kin, and 26% friends
 - N=242 dyads

Measures

- Social support network (Barrera 1981)
 - Number of persons perceived available for support
 - Characteristics, eg, role relation, freq contact, drug use
- Viral load was collected at time of interview
- Depressive symptoms (CES-D/16)
- Children/youths under 18 years
 - Biological or caring for
 - Any involved in the legal justice system in past year

Index & indexes' network factors associated with viral suppression (unadj)

Index & Index NW factors	Index UVL	Index Detect VL
Current drug use	53	73 **
Depressive symptoms	35	50 **
Race: non-Hispanic Black	85	85
Female	35	38 *
Education: <=HS	88	81 +
Support network, no. in	5.16	4.32 **
Social participation	2.32	2.00 **
Freq contact w/ supp NW	2.22	2.04 *
Child/youth < 18yrs	0.79	0.31 ***

*** p<.001; ** p<.01; * p<.05; + p<.10

Index & index network factors associated with viral suppression

(multivariate logistic regression)

CG background & NW factors	Adjusted ORs
Social support NW, total no. in	1.11 +
Frequency contact w/ support NW, average	1.62 **
Social participation NW, no.	1.17 +
Child <18 yrs, no.	0.67 ***
Depressive symptoms	0.65 +
Current drug use	0.45 **
*** p<.001; ** p<.01; + p<.10	

Caregiver & CGs' support network factors associated with index UVL (unadj)

CG or CG's supp NW factors	Index Undetect VL	Index Detect VL
HIV/AIDS	43.9	39.1
Current illicit drug use	24.9	31.9
Race: non-Hispanic Black	91.3	84.1
Female sex	54.9	69.6 *
Education (HS or less)	76.3	81.2
Depression (CESD/16)	32.4	30.4
Support network, size of	5.06	4.59
Emotional support	2.32	2.00 +
Non-kin in supp NW, no.	1.98	1.48 *
Freq contact w/ supp NW	1.93	1.77 *
Current drug users in supp NW, no.	0.76	1.09 +
Care for criminal justice involved youth	0.04	0.13 *

CG individual & network factors associated with index viral suppression

CG background & NW factors	Adjusted ORs
Emotional support NW, no. in	1.32 +
Having criminal justice involved child: Yes	0.30 *
Current drug users in CG's supp NW, no.	0.65 *
Non-kin in CG's supp NW, no.	1.11
CG sex: female	0.57 +

* $p < .05$; + $p < .10$

Limitations & strengths

- The selection of persons on HAART and therefore engaged in medical care may limit the generalizability of the findings to other IDUs
- We note that the proportion of indexes having a CG was similar to our findings from prior studies
- The findings point to IDUs' and their CGs' potentially shared and unique social environmental factors associated with effective informal care & tx outcomes

Conclusions

- The findings suggest the need for facilitating mobilization of specific forms of support for IDU PLHAs & their CGs to promote successful HAART
- Need for family approaches to HIV medical adherence that address effects of caring for (troubled) children
 - Youth effects may be indicative of caregiver role & family conflicts, & disruptions in routines conducive to adherence
- Need for CG-focused interventions to promote caregivers' emotional support from non-drug users