

Role of Community-Level Factors Across the Treatment Cascade: A Critical Review

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Roadmap

- Background
- Search Protocol Methods
- Findings
- Implications

Background

- HIV/AIDS treatment cascade dominated by studies at the individual level, increasingly, the role of structural factors is considered
- Yet, the place where structure & individuals come together – namely, the community – given less attention
- Call from UNAIDS to expand the research agenda and address the role of the community and community systems across the treatment cascade
- Better understanding of CLFs could inform the design and implementation of more effective, sustainable interventions
- No literature review on the role of community-level factors (CLFs) and HIV previously published

What are community-level factors?

- In this study, “community” refers to people living in the same geographical area
- Contextual measures
 - Only available at the community level, such as number of groups providing care & support
- Compositional measures
 - Aggregated from individual-level data, such as the proportion of the population that has been tested

Two research questions

- What community-level factors promote/inhibit HIV testing, encourage/discourage uptake of appropriate treatment, or support/undermine adherence and care in low- and middle-income countries?
- What CLFs have been addressed by HIV-related interventions? How and with what effect?

Search Protocol

- Search strategy
 - Relevant subject headings (MeSH, EMTREE, etc.)/key terms
 - Community-level factors “AND” each phase of the treatment cascade (HCT, pre-ART, adherence, care)
 - adapted for five databases
 - PubMed, Embase, Scopus, CINAHL, Global Health
 - detailed search protocol available online (linked to article)
- Inclusion criteria
 - CLFs assessed in relation to the treatment cascade
 - peer-reviewed articles published 2000-1/08/14
 - low- and middle-income countries

Search Results

- 2809 unique articles identified
 - 208 articles included in the full text review
 - each article read by 2 randomly assigned readers
 - 100 articles met all criteria
- 5 articles discussed interventions
- 19 articles analyzed quantitative data
- The majority of articles were focused on 1) HIV counseling and testing (HCT) or 2) ART adherence

Findings: Major themes across the cascade

- Social support and social networks
- Cultural and gender norms
- Stigma

Themes discovered: HIV Counseling and Testing

Positive associations with HCT

- Community-level HIV knowledge
 - Zambia OR 3.37 (1.57, 7.22) and Nigeria OR 3.07 (1.21, 7.79)
- Men employed
 - Uganda OR 6.60 (1.81, 9.23) and Chad OR 4.76 (1.06, 9.51)
- Primary school completion
 - Men (Uganda OR 6.60 (1.81, 9.23) and Chad OR 4.76 (1.06, 9.51))
 - Women (Tanzania OR 4.56 (1.75, 11.80))
- Membership in community organizations
 - Malawi (OR 2.00, $p < .05$); Zimbabwe: group membership aggregated at community level positively associated with HCT rates over 3 years
- Community action following a community empowerment intervention
 - Zambia: High vs. low levels of community action (OR 2.0, $p < 0.001$)

Themes discovered: HIV Counseling and Testing

Negative associations

- Low testing (Malawi OR 0.55, $p < .01$) and lack of support in communities, fear of social exclusion
- Norms associating HCT with reduced masculinity
- Communities in which women need husband's permission or/and financial resources for HCT
- Perceived and overt stigma (20+ articles, e.g., medium v low stigma at CL in Nigeria OR 0.57, $p < 0.001$);

Themes discovered: Pre-ART

- High rates of attrition and loss to follow-up between testing and treatment

Positive associations

- Social support networks (Uganda, Mozambique)
- Community-based organizations (India, Nigeria (aOR: 2.06, (1.21-3.50), Uganda)
- Collective efficacy, social cohesion and social support among key populations (India) and general public (review article)
 - Several studies found social cohesion higher in rural areas (Zimbabwe, South Africa)
- Feminine roles (Burkina Faso, Thailand)

Themes discovered: Pre-ART

Negative associations

- Masculine roles (Malawi, Burkina Faso)
- Fear of losing social support; social rejection and isolation (India)
- Fear of being seen at an ART facility (Uganda, South Africa, Uganda, Swaziland)
- Provider stigma (India, Malaysia, South Africa)

Themes discovered: Adherence

Positive associations

- Community-level HIV knowledge (Zimbabwe, Tanzania)
- Social support and social networks
 - Family, friends, teachers, CBO, employer help support adherence and retention in care (14 articles in Zimbabwe, Ukraine, Ethiopia, Tanzania, South Africa, etc.)
 - Response to fear of losing support from social network members (Zimbabwe, Tanzania, Uganda, and Nigeria)
- Community support associated with increased retention in care and improved outcomes (review of studies from resource-limited countries)
- Anticipated stigma can motivate adherence to avoid sickly appearance (Nigeria)

Themes discovered: Adherence

Negative associations

- Men's avoidance of AIDS clinics (Zimbabwe)
- Women whose husbands fail to provide financial support for transport or clinic fees often do not adhere (Zimbabwe, synthesis of qualitative work in sub-Saharan countries)
- Stigma/Discrimination
 - Discrimination in access to services (Mexico)
 - Stigma at school (children on ART in Uganda)
 - Family or community stigma, caregivers' fears of community stigma (barriers reported by 16% of HIV+ children and 30% of HIV-exposed children respectively in a study in Kenya)
 - Fear of stigma/discrimination (11 articles in Rwanda, Zambia, Nepal, South Africa, etc.)

Themes discovered: HIV/AIDS care

Positive associations

- Community systems and community support
 - Community support significantly associated with lower risk of death and loss to follow-up in Malawi (on ART RR: 1.26 (1.21-1.32), death RR: 0.22 (0.15-0.33), loss to follow-up RR: 0.02 (0-0.12), ended ART RR: 0.23 (0.08-0.54))
 - Community systems and support essential for palliative care delivery (Uganda)
 - Community members providing palliative care correlated with improved health/well-being, reduced stigma (Ethiopia)
- CBO engagement in the community and use of care services in Nigeria (aOR: .49 (1.16-5.33))

Themes discovered: HIV/AIDS care

Negative associations

- Fear of and experiences of discrimination from community members
 - Qualitatively reported by female sex workers, MSM transgender, peer educators in India
 - Changing face of stigmatization based on availability of state-funded HIV treatment in Serbia
 - Perceived public attitudes stigma among prisoners correlated with increased barriers to receiving HIV care upon reentry in Malaysia (high stigma: 48.1% vs. low stigma: 16.0%)
- Provider stigma (Grenada, Trinidad and Tobago, and Nigeria)

Conclusions

- Review identified key community-level factors to inform HIV work
- Lack of interventions to address community-level factors points to the need for such programs
- **Evaluation** of CL interventions largely absent
- Limited quantitative work measuring CLFs
 - aggregate available individual-level data
 - greater integration of multilevel methods to assess effects beyond the individual
 - add CL indicators to survey instruments

Implications for future programs

- Interventions designed to support
 - equitable gender norms,
 - cultural norms to enable appropriate treatment of key populations, and
 - stigma reductioncould be potential next steps for targeting community-level factors
- Research that rigorously assesses the role of CLFs is urgently needed as we strive to minimize loss to follow-up across the treatment cascade.

Thank you!

Questions or comments?

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Q&A/DISCUSSION