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 reduction

  could 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