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Commentary

The HIV Care Continuum—Is the Whole Greater Than the Sum of Its Parts? Implications for Interventions in a Test and Treat World



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In *EBioMedicine* Tucker and colleagues report findings from their meta-synthesis of qualitative data from three systematic reviews to holistically assess barriers common to all aspects of the HIV care continuum, including linkage to care, medication adherence, and retention in care (Tucker et al., 2017). Although previous reviews have examined specific aspects of the continuum, the review by Tucker et al. is unique in its perspective of viewing the continuum as a whole. The review included 24 studies across low-, middle-, and high-income countries that qualitatively evaluated interventions involving operational changes to improve either linkage to care, retention, or adherence.

This review is timely as the World Health Organization released updated guidelines in 2015 on antiretroviral drugs for treating and preventing HIV infection (World Health Organization, 2015). The new guidelines outline a "test and treat" approach recommending that everyone living with HIV begin antiretroviral therapy immediately following diagnosis, regardless of CD4 count. As evidence for both the preventative and treatment benefits of early antiretroviral therapy (ART) are now well-established, (Cohen et al., 2011; Danel et al., 2015; Group TISS, 2015) the guidelines mark an important shift in the field. However, such an approach will only be effective if people living with HIV are willing and able to get tested, seek care, adhere to medication, and remain in care long-term. The review by Tucker et al. highlights obstacles people face across all aspects of the care continuum—signaling potential pitfalls to a successful test and treat strategy.

The implementation challenges of providing ART to all people living with HIV include barriers at individual, community, health system, and structural levels (Bigna et al., 2016). Understanding and addressing these obstacles are critical to improving uptake, adherence, and retention in care. The seven cross-cutting themes identi-

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fied by Tucker et al. mainly fall into two categories—structural and health systems barriers. Structural barriers identified include poverty, transportation, food insecurity, and housing. The review also identified gender as an issue, with fewer men accessing treatment than women. This can also be interpreted as a structural issue as gender norms and roles are socially constructed and culturally defined. Health systems barriers identified include difficulty navigating the clinical care system and the need for service integration, particularly with mental healthcare.

To address these barriers, interventions are needed that impact macro-level structural factors, such as reducing poverty and income inequality, increasing educational attainment, and fostering more equitable gender norms. As seen by the Tucker et al. review, social determinants of health matter, and efforts to address them could improve outcomes across the continuum. Secondly, more interventions are needed to increase the availability, accessibility, and affordability of care. Many of these types of interventions were included in the Tucker et al. review and involve activities such as decentralization of care and task-shifting. However, more research is needed, especially on interventions that address multiple points on the continuum as opposed to those focusing on one specific component, For example, home-based HIV testing may improve testing uptake and initial linkage to care, but does it affect adherence and retention? What complementary interventions could be implemented simultaneously to improve all aspects of the continuum? Thirdly, changes to the management of HIV care could greatly improve outcomes across the continuum. More specifically, now that HIV is considered a chronic disease, (Rabkin & El-Sadr, 2011) it could be integrated into a streamlined approach to care that addresses all chronic conditions concurrently, including mental health and non-communicable diseases.

Additionally, it is vital that programs and research studies measure these barriers to account for potential mediation, which could help explain why some interventions succeed while others fail. Having robust, coordinated data collection at all points in the care continuum and across transitions from one stage to another are needed. As other researchers have noted, data from HIV care programs is often disjointed and focused on discrete outputs, such as number of people who engage in care, as opposed to tracking patients throughout the continuum (Hallett & Eaton, 2013). Obtaining more information on people who are "lost to follow-up" would also help understand how these barriers affect peoples' decisions to leave care and what motivates people to re-engage.

Tucker and colleagues have identified common themes that affect multiple aspects of the HIV care continuum—all of which are related to the social context in which people live and how health services are delivered. As the authors note, tackling these barriers will be challenging, but failing to do so means the fractured, leaky care continuum will remain, thus negatively impacting the success of a test and treat approach. We need interventions that improve the continuum in its entirety.

Disclosure

The author declared no conflicts of interest.

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