

Context and implementation of complex intervention (CICI) framework versus intervention complexity assessment tool for systematic reviews (iCAT-SR) in assessing and describing complexity of community-based ART initiation within a systematic review.

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Background: Community-based antiretroviral (ART) initiation is said to be a complex intervention as it involves the interaction of multiple components i.e. intervention provider and receiver, components, delivery site and mode, costs, cascade target, and behaviour. There is a limited understanding between complex intervention and its implementation. A tool that comprehensively describes the complexity of community-based ART initiation will assist authors in providing better understanding of the interacting components. This study aims to compare two tools that describe the complexity of community-based ART initiation.

Methods: The study was nested within a systematic review of community-based ART which aims to assess the uptake of community-based ART initiation. Six studies satisfied the inclusion criteria for the systematic review. Two tools for assessing the complexity the Intervention complexity assessment tool for systematic reviews (iCAT-SR) tool and the Context and implementation of complex intervention (CICI) framework, were applied to assess the complexity of community-based ART initiation of each included study. A comparison was made between the time taken to assess the

complexity and level of agreement between the reviewers.

Results: The average time for assessing complexity was shorter for the CICI framework. Despite dimensions being clearly described, the content and implementation dimensions of the CICI framework were poorly described in the included studies. All the domains of the iCAT-SR tool were described in the included studies, but the average time to complete the tool was longer. The level of agreement between the two reviewers were poor for both tools. The analysis of the included studies revealed that settings have a great impact on community-based ART initiation outcomes.

Conclusions: This study shows that the iCAT-SR assessment tool was able to describe the complexity of community-based ART initiation. The context domains for the CICI framework were poorly reported in the included studies. However, there was no "ideal" tool that could give a full description of a complex intervention. There is a need for comprehensive reporting. A combination of assessment tools can be adapted to address various complexity issues.