Barriers and facilitators to linkage, adherence and retention in care among HIV positive patients: an overview of qualitative systematic reviews using mega-aggregation framework synthesis.

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Background: People living with Human Immunodeficiency Virus (PLHIV) continue to struggle with the complexities related to having a chronic disease and integrating antiretroviral treatment (ART) and care into their daily lives. This overview aimed to assess existing evidence related to self-reported barriers and facilitators to linkage to ART, adherence to ART and retention in care for PLHIV and to identify gaps in the evidence.

Methods: The novel pragmatic approach of mega-aggregation framework synthesis was developed, described and applied in this overview using Kaufman's interpretation of the socio-ecological framework. We included qualitative systematic reviews, up to July 2018, and used a systematic and rigorous approach to select reviews and extract data. We assessed methodological quality using an amended version of the Joanna Briggs Institute Critical Appraisal Checklist for Systematic Reviews.

Results: We included 33 systematic reviews, from low-, middle- and high-income countries and included 1 111 964 HIV positive children and adults. Methodological quality varied considerably across reviews. Using the megaaggregative framework approach, we found 544

unique third order concepts, from the included systematic reviews, and reclassified the third order concepts into 45 fourth order themes within the individual, interpersonal, community. institutional and structural levels of the Kaufman HIV Behaviour Change model. Our overview found that the main barriers and facilitators to linkage, adherence and retention such as psychosocial personal characteristics perceptions of ART, desires, fears, experiences of HIV and ART, coping strategies and mental health, were interwoven with other factors on the interpersonal, community, institutional and structural level.

Conclusions: High quality qualitative review level evidence on self-reported barriers and facilitators of linkage, adherence and retention in care is lacking for adults and even more so for Overviews are useful in identification of evidence gaps to inform new guestions and researchers encouraged to build on the method of megaaggregative framework synthesis as the place of overviews become more prominent with the growing body of qualitative reviews. Systematic review registration: The protocol of this overview **PROSPERO** registered on (CRD42017078155) on 17 December 2017.