Effect of Pharmacist Care on Clinical Outcomes Among People Living with HIV/AIDS: A Systematic Review and Meta-Analysis

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Ali Ahmed[1], Juman Dujaili[1], Ahmed Awaisu[2], Furqan Hashmi[3], Nathorn Chaiyakunapruk[1]
[1]Monash University, Malaysia, [2]Qatar University, Doha, [3]University of the Punjab, Lahore, Pakistan
Ali.ahmed@monash.edu

MONASH University

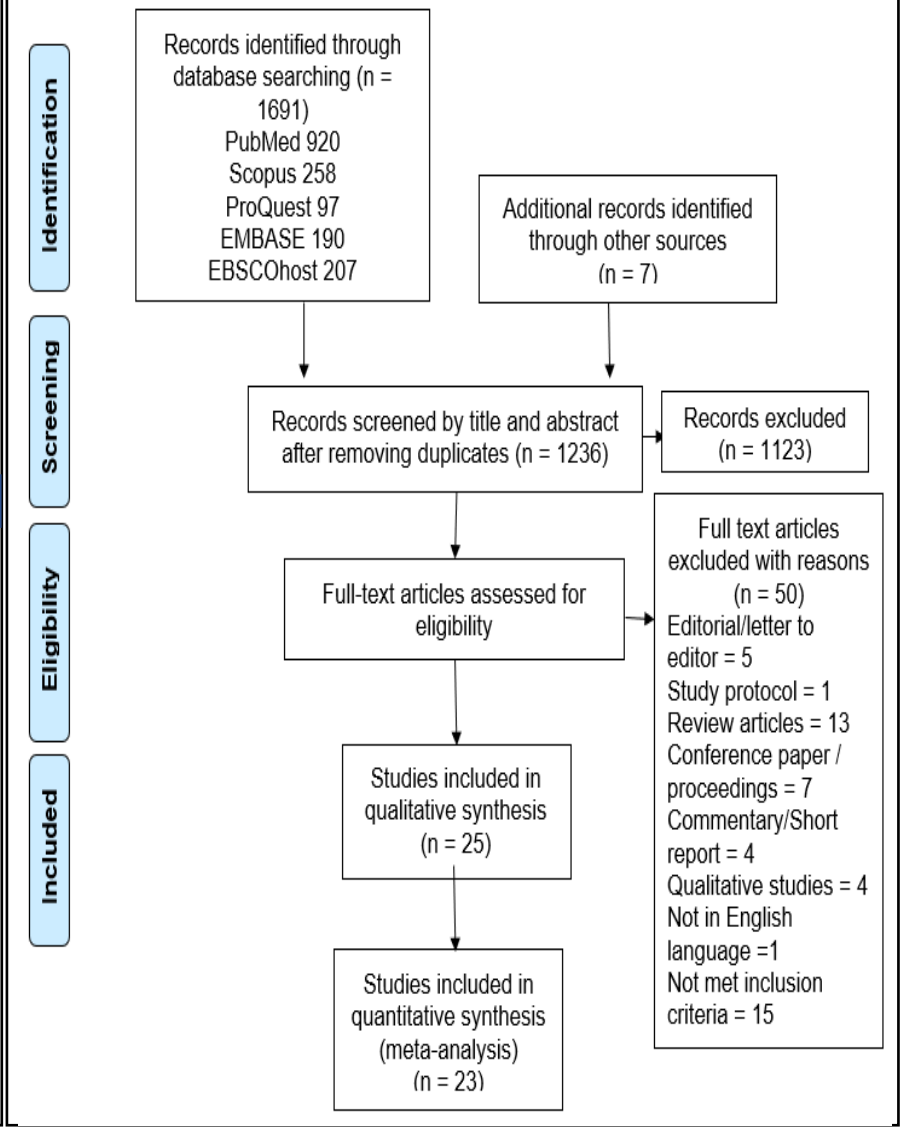
Introduction

- Pharmacists play a significant role in the multidisciplinary care of people living with human immunodeficiency virus (PLWH).[1]
- There is less evidence to clarify the impact of pharmacist as an individual team member on HIV care.[2]
- Study aims to determine the effects of pharmacist intervention on improving adherence to antiretroviral therapy (ART), viral load (VL) suppression, and change in CD4-T lymphocytes in PLWHA.

Methods

- We searched six databases (PubMed, EMBASE, ProQuest, Scopus, Cochrane, and EBSCOhost) from inception till June 2020.
- Included studies that evaluated the impact of pharmacist care activities on clinical outcomes in PLWHA.
- Random-effect model was used to estimate the overall effect [odds ratio (OR) for dichotomous and mean difference (MD) for continuous data] with 95% confidence intervals (CIs).
- GRADE was used to evaluate the quality of evidence and review protocol was published on PROSPERO (CRD42020167994).

Results



- Twenty-five studies involving 3,206 PLWHA in which pharmacist-provided intervention either in the form of education with or without pharmaceutical-care either alone or as an interdisciplinary team member were included.
- Eight studies were randomized controlled trials (RCTs), while 17 studies were non-RCTs.
- Pooled-analyses showed a significant impact of pharmacist care compared to usual care group on adherence outcome (OR: 2.70 [95%, CI 1.80, 4.05]), VL suppression (OR: 4.13 [95% CI 2.27, 7.50]), and rise of CD4-T lymphocytes count (MD: 66.83 cells/mm^3 [95% CI 44.08, 89.57]).
- The strength of evidence ranged from moderate, low to very low.

Conclusion

- The findings suggest that pharmacist care has a positive impact on improving adherence, VL suppression, and improvement of CD4-T lymphocytes in PLWHA.
- Further studies with more rigorous designs are needed to reaffirm the impact of pharmacist interventions on clinical and economic outcomes among PLWHA.

References

1. Dilworth et al., Journal of managed care & specialty pharmacy. 2018 Feb;24(2):165-72
2. Saberi et al., Patient preference and adherence. 2012;6:297.