



A Commentary on a Systematic Review Protocol and Commentary on Cervical Cancer Prevention in HIV-Seropositive Women from Developing Countries

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Received date: May 30, 2017; Accepted date: June 08, 2017; Published date: June 15, 2017

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Systematic Review Protocol Summary

The review protocol has indicated how gaps in evidence may be addressed by through reviewing of published literature on cervical cancer prevention strategies that are being used in developing countries for HIV positive women. The evidence that is going to be shown in this systematic review may be used to update and plug in the gaps in the cervical cancer screening and prevention among HIV positive women. The review guided by this protocol may also inform future research as well as form the basis of evidence-based strategies, policies and interventions for cervical cancer prevention. The systematic review is currently being conducted thus limitations and strengths of this protocol have not been considered. The validity of the findings from the informed review is going to be analysed and reported in relation of reviews and researches that are relevant.

Authors' Objectives

To document how to carry out a systematic review looking at the current strategies and interventions which are being used in the developing countries to screen and prevent cervical cancer in women who are HIV-seropositive. The systematic review will try to answer the following questions:

- Are there differences among countries on cervical cancer screening and prevention modalities which are being used for HIV-seropositive women?
- Have these cervical cancer screening and prevention methods improved over time?
- Are these cervical cancer screening and prevention modalities effective in preventing cervical cancer in HIV-seropositive women?

Searching

The following electronic databases, Cochrane, CINAHL, PubMed, Embase and MEDLINE, are being searched for studies that reported in English language. Additional studies for the systematic review are being searched via citation and reference tracking.

Study selection

The following study types; randomized controlled trials, prospective and retrospective cohorts, cross-sectional and case-control studies that enrolled women and looking at cervical cancer screening and prevention modalities and HIV, are eligible for inclusion. Included studies are required to be peer-reviewed, done in or for developing countries as defined by the United Nations and measures the effect or

impact of the cervical cancer screening and prevention modality on HIV-seropositive women.

Studies' follow-up rates are being used as a measure of the quality of the studies' findings; therefore, no studies are being excluded as a result of length of follow-up. A study with a follow-up rate that is less than 60% is being considered of limited validity especially when loss to follow-up is associated with both screening and prevention modality and its cervical cancer prevention impact.

The studies' exclusion criteria includes reviews, studies which have unrepresentative samples and studies which were done looking at cervical cancer in general. Unrepresentative samples within studies are being determined and identified by performing non-parametric tests which are based on the demographical and geographical representation of the used sample against the population from which the sample was selected [1].

Results from the different database searches are being merged by two independent researchers who are also screening the abstracts. The abstract are being double-screened and the reasons for exclusions of some studies are documented to facilitate the process of discussion around disagreements arising through the screening process.

Assessment of study quality

Ascertainment of the quality of included studies is being done using the Newcastle-Ottawa Quality Assessment Scale which was modified for this review. Quality of the studies is being based on their designs, focus of the study, findings, length of follow-up and representativeness of participants. Within the specific study designs, further quality aspects looking at randomization of participants, blinded outcome, power calculation and whether the outcome measure was predefined. Quality examination of the studies is being done by two independent reviewers who are scoring the studies from zero (low quality) to five (high quality).

Data extraction

Data to facilitate meta-analysis is being extracted by two independent working reviewers.

Methods of Synthesis

Narrative synthesis is going to be used to summarize the characteristics of included studies through the use of tables. Meta-analysis is going to be used where there is sufficient consistency in the methods and results of the included studies. Findings from the

different included studies are going to be combined using the random-effects aggregated data meta-analysis. Forest plots and associated tables will be used to show the estimates from the included studies.

Included studies will be assessed for bias and sensitivity analysis using meta-analysis. RevMan software is going to be used to produce funnel plots of risk bias applicable at 95% probability using t-test. The

I² statistic (Higgins and Thompson) is going to be used to assess heterogeneity of the included studies. The I² statistic of 0% will indicate no heterogeneity while larger I² percentages will indicate increasing heterogeneity at p-value of 0.05 or less.

Literature Review Process (Figure 1)

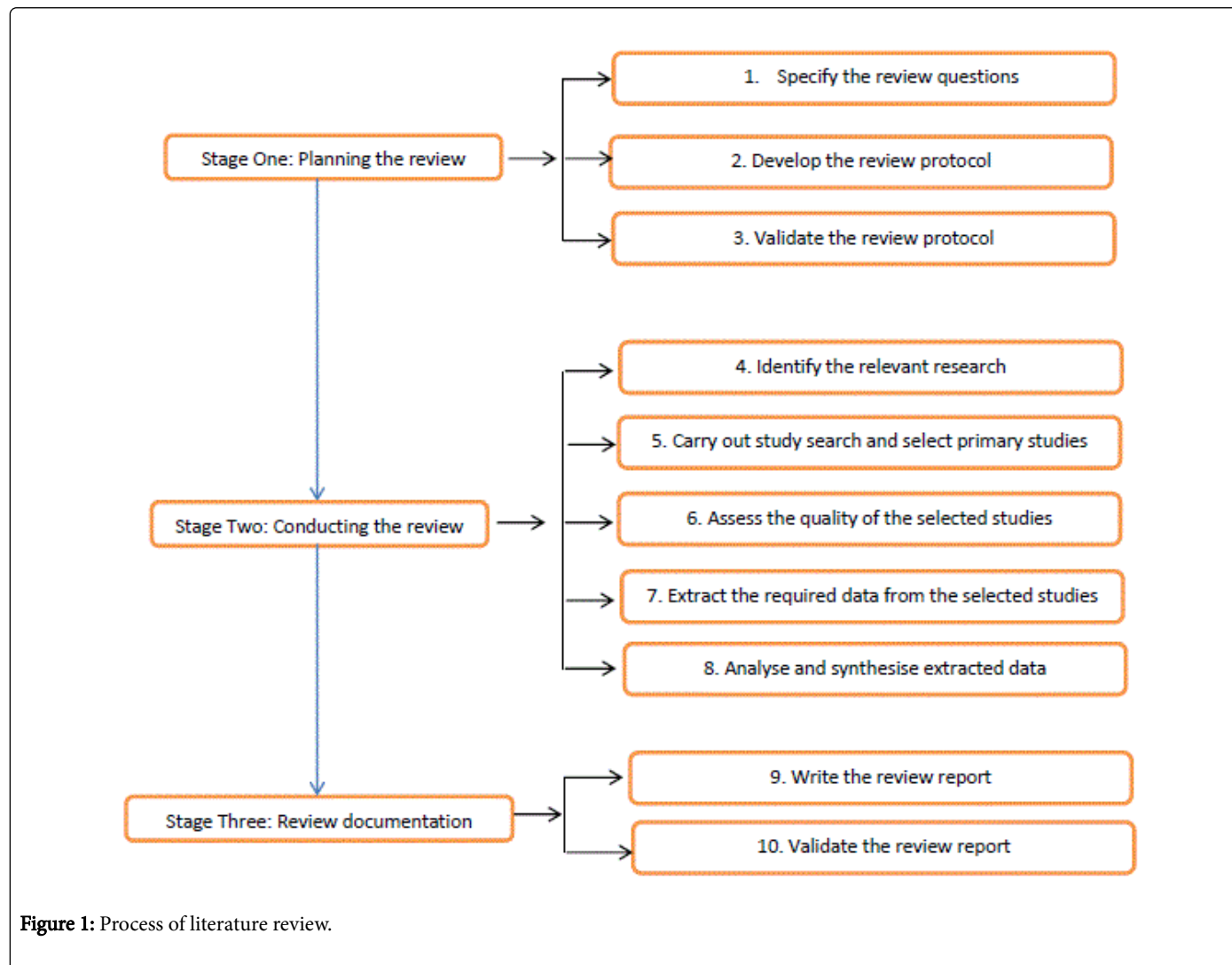


Figure 1: Process of literature review.

Conclusions of the protocol

This protocol will guide a review that is aimed at generating evidence that may be used to plug in gaps that exist in the developing countries when it come sot cervical cancer prevention and screening of HIV-seropositive women. The authors conclude that this review will likely inform future research as well as form the basis of evidence-based strategies, policies and interventions for cervical cancer prevention in the developing world.

Commentary

The systematic review protocol's objective, search criteria and analysis plan are clear. With the review currently underway, the authors are searching several mentioned databases for relevant studies. The restriction to only include studies reported in English has a

likelihood of increasing risk of missing other relevant studies and introducing language bias into the review. Methods to reduce bias and errors in the review during study selection, data extraction and analysis have been reported and validity and quality assessments have been elaborated. Therefore, reliability of evidence to be generated will likely be high. All the details of the studies that will be included and analysed will be provided to facilitate the assessment of the appropriateness of pooled data and reliability of pooled results. Analyses of the review will be done through narrative and meta-analysis. Heterogeneity of studies that will be analysed will be explored to provide proper decisions on the pooled data. The authors conclude that this protocol provide a systematic way of assessing the current cervical cancer prevention strategies on HIV positive women in developing countries.

Implications of the review protocol for practice and research

Practice

The authors stated that the evidence likely to be generated from this review will impact on closing the gap that currently exists in the prevention and screening of cervical cancer in HIV positive women and promote policies that facilitate screening of these women.

Research

The authors stated that the generated evidence from this review will likely inform future research around cervical cancer prevention and screening in HIV positive women.

Policy

The information from this review has the potential to add weight to the need to have policies that support organised and systematic

cervical cancer screening of HIV-seropositive women, since cervical cancer is now classified as an AIDS-defining disease.

Funding

University of Pretoria (program code 10260404).

References

1. Mapanga W, Elhakeem A, Feresu SA, Maseko F, Chipato T (2017) Prevention of cervical cancer in HIV-seropositive women from developing countries: A systematic review protocol. *Systematic Reviews* 6: 91.