

NIHR-MRC TRIALS METHODOLOGY RESEARCH PARTNERSHIP (TMRP) GLOBAL HEALTH PUMP PRIMING AWARD, 2020, FINAL REPORT

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Study title: The practice of pilot/feasibility studies in informing the conduct of HIV related clinical trials in sub Saharan Africa

Introduction

The NIHR-MRC Trials Methodology Research Partnership made available funds for small pump-priming grants of between £2000-£10,000. We were privileged to be awarded the grant, equating to a sum of £9,760.00, Ref: GH/221. This grant facilitated the conduct of a Scoping Review Study entitled: *The practice of pilot/feasibility studies in informing the conduct of HIV related clinical trials in sub Saharan Africa*. The project has been finalised and below, we provide a summary of the review project plus details of the project implementation in general.

Summary of the review project

Introduction: Pilot/feasibility studies represent a fundamental phase of the research process and play a vital role in the preliminary planning of a full size clinical trial. Sub-Saharan Africa hosts the majority of HIV clinical trials in the world, however, it is not well documented how pilot/feasibility studies are utilised as a pre-requisite step for the conduct of larger HIV clinical trials in this region. This scoping review aimed to establish the extent to which larger HIV related clinical trials in sub-Saharan Africa are informed by a prior pilot/feasibility study.

Methods: We followed the JBI methodology for scoping reviews. Six databases including MEDLINE (OVID), CINAHL, EMBASE, Web of Science, Cochrane Central Register of Controlled Trials (CENTRAL) databases, and African Index Medicus (AIM) were systematically searched to identify potential articles. Gray literature was also searched. Data was extracted and charted using a structured tool adapted from the JBI scoping review methodology guideline. Data were analysed and interpreted using simple descriptive statistics, illustrated in figures and tables, and summarized in a narrative using excel and Statistical Package for the Social Sciences version 25 (SPSS) software.

Results: Thirty two (32) published protocols on HIV related randomised controlled trials in humans in sub-Saharan Africa were included. Articles were in the English language, published in the past 10 years (2011-2020). The review results showed that the majority [56% (18/32)] of HIV related clinical trial protocols in Sub-Saharan Africa are not informed by feasibility/pilot studies. The data also revealed that there was a corresponding increase in the past eight (8) years, in the number of clinical trials that were informed by a pilot/feasibility study from 1 in 2012 to 5 in 2020. These data point to an increasing interest among researchers to incorporate pilot/feasibility studies in the conduct of HIV clinical trials.

Only five countries (South Africa, Uganda, Zimbabwe, Malawi and Kenya) contributed to more than 78% (25/32) of all proposed clinical trials to be conducted in SSA. This data appears

to correspond to the HIV prevalence rates in SSA but may also highlight a gap either in reporting or adopting use of feasibility/pilot studies in HIV related research in SSA. It is however not well understood if the trial protocols with no documented pilot/feasibility study were actually not informed by these. We were unable in the current review to expose such information and recommend more expanded study in the area.

Recommendations: This scoping review results indicate the need for research to study factors that hinder the integration of pilot/feasibility studies in the conduct of HIV related clinical trials. There is also a need to evaluate human subject’s protection for clinical trial protocols that are not informed by pilot studies.

Summary of achievements against planned objectives

Our project focused on assessing protocol/proposal documents for larger HIV clinical trials in sub-Saharan Africa, to establish the extent to which the larger HIV related clinical trials are informed by a prior pilot/feasibility study. Our approach involved development of a review protocol, identification of potential HIV related Clinical trial protocols, assessing the retrieved protocols for eligibility for inclusion in the review, extraction of data from included protocols, analysing the extracted data, and writing a review report. Our review was to take a total of nine months, from 1st September to 31st May 2021. We have so far concluded most tasks related to our project and are on time to complete the project according to the set timelines as summarised below.

Table 1: Project achievements against planned outputs

#	Output	Timeline	Achievement
1.	Developing the review protocol	1st September 2020-30 th September 2020	A scoping review protocol was developed using the JBI scoping Review methodology.
2.	Registration of the protocol with PROSPERO	1st-15 th October 2020	The review protocol did not fulfil the criteria for registration into PROSPERO, since this was a Scoping Review Protocol. However, it was Registered into the Open Science Framework (OSF).
3.	Literature searching	16 th Octobers 2020-31 st November 2020	Literature was searched on Six databases including MEDLINE (OVID), CINAHL, EMBASE, Web of Science, Cochrane Central Register of Controlled Trials (CENTRAL) databases, and African Index Medicus (AIM).
4.	Screening of documents for eligibility	1 st -15 th December 2020	Screening of articles was done a total of 32 published HIV study protocols on HIV related randomised controlled trials in humans were found suitable for inclusion in the review.

5.	Data extraction	16 th December 2020-15 th January 2021	Data extraction was carried out using a structured tool adopted from the JBI Scoping Review methodology.
6.	Data analysis	16 th -31 st January 2021	Data analysis was accomplished. This was done using excel.
7.	Compilation of the review report	1 st February 2021-30 th March 2021	A review report has been drafted and submitted to the TMRP Team at University of Liverpool. A report has been submitted to Soroti University.
8.	Writing of a manuscript for publication	1 st April 2021-31 st May 2021	A manuscript has been drafted and will be submitted to a Journal (Contemporary Clinical Trials) for peer review and consideration for publication by Monday, 31/05/2021.

Reasons for non-achievement of objectives and plan for completing project (if relevant)

Being a review project, the current situation of COVID-19 pandemic did not raise any barriers to the execution of our planned activities. We therefore report that we did not encounter any significant challenges during the conduct of the research and our progress is up to date within set timelines. We have achieved all our set targets and as per set timelines.

Outputs (e.g. publications, presentations, reports) and/or plan (including timelines) for outputs

- A presentation of the research progress was made on the 19/10/2020 at the TMRP Webinar Series.
- A final report has been submitted to TMRP Team and Soroti University Management on 28/05/2021.
- A manuscript has been written, for submission to a peer reviewed journal (Contemporary Clinical Trial) by 31/05/2021 for review and publication.
- A presentation shall be made in an HIV related conference (to be determined).

Finances

Our total grant award was £9,760.00. For the first instalment, we received 80% of the grant funds equating to £7, 808.00 and which has been spent as per the attached documents, which include a cashbook, financial report among others. To note, funds were awarded in GBP, transferred to our account in USD, and spent in Ugandan Shillings.

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