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Research primer

Conference presentations: A research primer for low- and middle-income countries

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ABSTRACT

Presenting research at a conference is an opportunity to disseminate the findings, network with other researchers, and to develop your academic track record. Although every conference will have some local differences, there are common approaches to presenting your research in the best manner. This will differ depending on whether it is an oral or a poster presentation.

This research primer aims to support researchers in the early stages of their careers to undertake the best possible presentation.

African relevance

- Presentations, both oral and poster, follow general principles that apply everywhere.
- Conference presentations provide an opportunity for authors to get known and to identify potential future collaborators, locally, nationally, and internationally.
- Consideration needs to be given to the conference setting both in terms of the audience the presentation is addressing, and the resources available to support it.

The International Federation for Emergency Medicine global health research primer

This paper forms part 14 of a series of how to papers, commissioned by the International Federation for Emergency Medicine. It describes how research can be effectively disseminated at conferences to allow for relatively quick promulgation of your findings, rapid feedback and stimulation of further collaborative work. We have also included additional tips and pitfalls that are relevant to emergency medicine researchers.

Introduction

Conferences are the key place for dissemination of research findings. Attending the conference are a concentrated group of people with similar foci of interest in a discipline, topic or field of enquiry. Presentations allow immediate feedback and opportunities for networking. For all researchers, and especially those at the beginning of their careers, conferences are the best opportunity to get know and to meet those with whom you can collaborate.

Your study has finally been completed. The data has been collected, analysed and written up. The thoughts of the team, particularly your supervisor, are turning to publication.

A presentation at a conference provides a relatively quick promulgation of results compared to peer reviewed publication. In addition, it allows rapid feedback from others interested in the same field and can stimulate further collaborative work. Conference presentations should generally occur prior to the study being published. Once published in a journal, many conference organizers will not accept the abstract for presentation. Local meetings tend to have a more liberal approach to this convention. Conversely, some journals will not accept studies that have been presented at a conference and request an embargo prior to publication. This should be carefully considered.

Relatively early in your career you can expect invitations to *open access conferences*. Be aware that many of these are designed to make profit for the organizers and may have little in the way of academic merit. Ensure you know who the organizing committee represents, e.g. a national or international specialty group such as the International Conference for Emergency Medicine, or the African Conference on Emergency Medicine.

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Background

Having finished your study and preparing it for publication, the question arises: why present at all? All journals have a timeline for publication that includes peer review, preparation of the manuscript, proof reading and then finding a place in a future issue. Rarely will this process be less than several months. In comparison, a presentation can occur relatively quickly and thus allow your findings to be disseminated earlier.

In addition, although you will have author status in a publication, those attending a conference will have the opportunity to meet you in person and to discuss your findings. This is of particular value when considering further collaborative work, as those who work in the same area are most likely to be the ones attending the presentation.

Finally, having your paper accepted to a meeting is evidence that others find the work of value. This is particularly true for larger meetings, and those with peer review of submitted abstracts. To continue along your academic path, you will need to demonstrate that your work is of value and this is done through a track record of grants received, papers published and also through the presentations given.

The presentation can be given in either oral or poster format. There are valid reasons for both. Organizers will have limited places for oral presentations, and to some extent for posters. Oral presentations are more flexible with information able to be given visually and aurally. More advanced presentations allow the incorporation of sophisticated mediums. Importantly, presentations are a chance to be out in front of a live audience, to be seen and heard, and to partake in discourse over your findings. However, they are a single slot, and will compete for an audience with other conference activities. A poster will usually provide you with an opportunity to talk to those who are attending, either during time spent at the poster (most often during breaks in the conference program), or a dedicated slot to talk to your findings. The key advantage is that it usually remains in place for the duration of the conference which allows many attendees to view your work. However, the opportunity to present yourself and your work is limited to your availability to stand with the poster.

Presentations can be in local, national or international settings. Some organizers will allow presentations from a large international meeting to also be shown locally but previous presentations of the same work must be declared. Different meetings have differing audiences. The larger meetings are important opportunities to be known to a larger audience and for your track record. However, the findings may be more relevant to a local audience and more readily transferred into practice.

Occasionally, preliminary findings are of interest and can be presented. If the study is worthwhile then it should be the final results, carefully analysed and considered, that are presented. Rushing half-finished results to a conference does not present you or your work in a good light.

The abstract

You will be asked to submit an abstract to the conference for consideration to be included in the program. The abstract serves two purposes. It provides justification to the organizers to include you in their program, and it also entices attendees to visit your presentation as it will generally be published in the program.

Pay attention to the information provided by the organizers as they may have a preferred format and will almost certainly have a word limit; make sure you stick to it. As for any abstract, it can be challenging to get your whole study into 250 words, so identify what is important. The title should be catchy to draw people in. The aim of the study should be clear, and the conclusion should summarize the important findings and why someone should be interested in the study itself. There is generally insufficient space for a lengthy background and discussion. The remaining content is for the methods and results. The methods cannot be comprehensive. There should be sufficient detail that anyone reading the abstract can appreciate the type of study and how it was undertaken but the detail needs to be elsewhere, usually in the publication. The primary outcome must be presented and important secondary outcomes.

Tips:

- Stick to the word count
- Have colleagues or supervisors review for language and grammar
- Focus on the primary outcome
- Ensure any conclusion is based on the results

Oral presentations

Be aware of the time allocated. Typically, it is 8–10 minutes for a presentation and then 3–5 minutes to answer questions. NEVER go overtime – this is discourteous to your co-presenters, and to those who are moving between streams. Well run meetings will not allow overruns and there is a possibility you will be cut off by the Chair before you can finish with your final flourish!

For most presentations allow about 1 min per slide, even longer for critical results. This means about 10–12 minutes slides maximum. Slides should be kept sparsely populated, with appropriate text and density of graphs. The slides are providing important information but so are you. Too much information on each slide forces the audience to focus their attention away from you, and it is frustrating if the slide moves on before it can be appreciated.

Avoid just reading out the slide text. There should be a synergy between the visual and oral presentation. The slides should be self-contained with the oral presentation adding value e.g. the methods may be a single slide that highlights the key issues (it is far less comprehensive than the methods section of a paper), but the presenter can note any complexity in the research methodology that would be unwieldy to write out on a slide.

Time is generally tight so use it well. If the Chair reads out your title, don't repeat it, move into the introduction for your presentation.

Generally, there is a one slide introduction, and one to two slide(s) background. Allow approximately two slides for methods unless there is particular complexity. Even then, the slide should outline how the study is done and the presenter can talk around the complexity.

There should be about three slides for results. The primary outcome must be the focus as well as the important secondary outcomes. Graphs and figures are particularly helpful in presenting complex results in a way that can be rapidly understood. There is no place to write out the results as text and then to present them figuratively. Allow one to two slides for a discussion and generally one slide for limitations and one for implications.

Thank the audience for their attention when finished. As well as acknowledging their interest, it is a time-honoured means to indicate your presentation is concluded and hand back to the Chair. The Chair will then invite questions if time allows and will moderate the ensuing discussion.

The most interesting questions tend to come from others who have done similar work or studies in the same field. It is worthwhile thanking the participant for their question and taking time to consider a response. This is an opportunity to engage in learned discourse with your colleagues. In the event that an audience member provides a comment, rather than a question, thank them and wait for a question.

Tips:

- Try to keep consistency in the slides. Use the same size, type and color of font for each slide, and use the largest size font that is appropriate. Some conferences provide a specific template.
- Avoid gimmicks e.g. bullet ricochet noise when changing slides, flashy entrance of text from the SE corner. It distracts the audience and does little to impress them of your academic credentials.
- It is best to use commonly employed software to avoid issues at a distant meeting. The organizers usually suggest a preference but

contact them if you intend to use an uncommon type.
- Audio-visual media can be considered if it adds to the presentation but be wary of large video files. During a conference, internet connection can be patchy, file formats don't work, sound can be missing or inaudible. It is advisable to have a backup slide rather than rely completely on video files. Anticipate failure.
- Ideally presentations are relaxed and with only minimal cue cards. This is easier for experienced presenters than for most novices. For inexperienced presenters or those nervous about public speaking, it is best to have the entire presentation written out so that, in case of a "thought block", the presenter can default back to reading their notes.
- There is a rarely a dress code but business casual is recommended. This is an opportunity to present your hard work so don't dress down.

Poster presentations

Generally, the biggest challenge is to get an entire study down onto a single poster.

Conferences have many posters up and delegates take time out during breaks to visit and see what research is occurring. It is unlikely they will take the time to stop and read a densely packed poster.

Relatively novice researchers should always visit the posters at meetings to see where research is being carried out, identify individuals they may want to work with and particularly to see what works and what doesn't in a poster.

Time is usually allocated for the researcher to be beside their poster to answer questions from viewers. In some circumstances, a more formal two to three-minute presentation may be asked for. A formal presentation should be prepared just as an oral would, except that the very brief window necessarily limits the content to the aim, results and implications/conclusion. It would be akin to reading out the abstract, allowing for the fact that the poster is providing much of the necessary information. Add value with the presentation, rather than just reading out what is already in the poster.

Overall:

- Keep the background and methods to a few lines or points. The discussion is largely encapsulated in the conclusion. The majority of the poster is taken up with the results.
- Use big font and use items that capture the eye e.g. interesting figures, important pictures.
- Always check the conference notes for the maximum size of the poster as space is often at a premium and there will be a strict upper limit. If in doubt a slightly smaller poster is preferred, but this will necessarily mean a loss of space for presentation.

Tips on this topic

Orals

- Slides should be self-contained with the oral presentation adding value to them. Don't just read out the slide.
- Practice out loud to a mirror to get the pace right and check that words in your head are coming out properly. Nerves generally result in the presentation speeding up.
- A real-world practice run in front of supervisors and peers is invaluable. Departmental meetings provide an opportunity to get timing correct and address questions, especially unexpected ones.
- There are almost always questions, at least one from the Chair and one or two from referees if the paper is being adjudicated. These are mostly queries about how the study was done, points of clarification etc. Many can be predicted from rehearsal and a slide prepared to answer a predicted question looks particularly professional

Posters

- Posters are particularly amendable to graphs and figures. A great deal of data can be presented succinctly in a key graph. But keep them as simple as possible.
- Traditionally posters were presented in their entirety. Occasionally, researchers will print them in smaller sizes for ease of transport and then patch them together. However, this is not recommended. It is now possible to print high quality posters onto cloth that can be easily ironed flat in your hotel room. Unless otherwise specified in the conference notes, all are acceptable but give some thought to how they will look when hung. Check conference requirements on orientation and maximum size

Pitfalls to avoid

Orals

- Going over time is discourteous and may result in your presentation being cut-off
- Be prepared. Assume that audio-visual material might not work or that you will have a mental block in the middle of your oral presentation
- Understand your statistical analyses and expect questions about them

Posters

- Avoid too much text. Density is your enemy
- Font must be easily read at 1 m.
- Acknowledge appropriately, especially if someone is likely to be an attendee.

Authors' contribution

Authors contributed the following to the conception or design of the work; the acquisition, analysis, or interpretation of data for the work; and drafting the work or revising it critically for important intellectual content: JK: 50%, DT 25%, ES 25%. All authors approved the version to be published and agreed to be accountable for all aspects of the work.

Declaration of competing interest

The authors declared no conflicts of interest.

Further reading

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