VIEWPOINT

Positing Nuts and Bolts for an Impactful Poster

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Abstract

A poster presentation is often the first step to learning the art of presenting research findings at academic conferences. A lack of training and emphasis on good poster presentations has created a vicious cycle leading to a systematic downgrading of poster presentations. This invariably affects young researchers who are seeking to build confidence through these presentations. This article presents the authors' learnings at a workshop along with relevant literature.

Key take away: An effective poster presentation begins by taking a step back and finding the key message to be conveyed and not with a review of literature or a unique title. It requires simple consideration of layout and size of the poster, color, font size, representation of data, ease of navigation for the reader and positioning of the sub-headings to be impactful. It is prudent to cautiously explore and experiment with the guidelines and learnings listed here to suit the Early Career Psychiatrist (ECP) style. We believe that these gleanings can benefit other medical professionals with relevant modifications.

Background

Aposter is a useful and attractive method to visual display a research study.[1] Poster presentation is often included as a mandatory assignment for students with a curriculum involving research. Early career psychiatrists (ECPs) should understand that one of the easier ways to distinguish one's career track is to collect awards. Almost all conferences announce awards both poster and oral presentations. ECPs can aim for these awards while making their research presentations. Poster presentation is of great benefit especially to young investigators who are attending academic conferences for the first time and are not keen on making an oral presentation.[2] It is also an effective method to disseminate research findings and allows to seek active feedback from the audience through one-on-one interactions, additionally allowing to build network for collaborations.[3]

However, to the best of our knowledge, effective methods of poster presentation are not taught as part of academic curricula in most universities across Asia. This could have led to poor poster presentations, leading to poor interest in the audience and thereby lesser interest of the organizers who therefore have gradually accepted a lower standard of posters being submitted. These set low standards have resulted in a vicious cycle, showed in Figure 1.

Therefore, this article aims to break the above cycle by presenting students with the recommendations for effective posters learnt during a professional skills workshop. Considering the ongoing pandemic, conducting such workshops face several restrictions and hence this article may take a special place in the dissemination of this knowledge.

Nuts and Bolts

All authors had presented a poster during their career. An exhaustive literature search on any of the databases with search terms of "poster" or "presentation" or with "psychiatry" or "training", or "career development" also reveal details on the qualities of an impactful poster. Therefore, many of us were skeptical about any additional learnings a session on poster presentation could offer.

All attendees were required to present a poster at the workshop. There were no specifications given for the topic, theme, or layout. All participants evaluated each other's posters prior to the poster walk based on content and presentation. A final assessment was done during the poster walk along with Prof. Sartorius which taught us the nuts and bolts of an impactful poster presentation. We learnt that
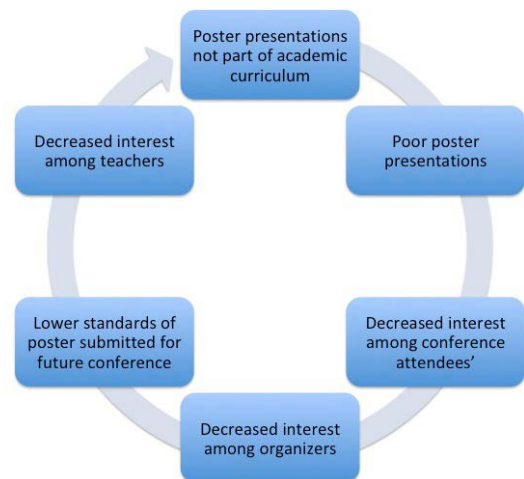
Figure 1: Why a poster presentation are found less?

an impactful poster was alluring from afar, arouses interest from nearer and apprehends the message when nearest.

We as psychiatrists, emphasize on understanding the experiences of our clients. We learnt that the same could be applied to making effective presentations as well. While making a presentation, we often get too engrossed with the content of the presentation while ignoring the more essential aspect - the form. A good form is quintessential to delivering a good presentation with any content.

Before proceeding, it may also be wise to consider whether an oral or poster presentation is more suitable, the differences are shown in Table 1. Suitability can be examined regarding the type of research or the presenter. Research in the form of case reports, case series, chart reviews and audits that can be summed into 1 to 2 key messages lend themselves better to a poster presentation. Presenters must examine their comfort in appearing in front of a larger audience versus discussing research with inquisitive conference attendees. Prof Sartorius told us about many a discussion that began over a poster lead to seminal insights and collaborations.

The qualities of an impactful poster are readability, organization and succinctness.[4] We wish to caution the reader that none of these measures can address deficiencies in content. The steps to making this possible are represented in Figure 2.

Find the Key Message and Title Accordingly

The first step forward is to take a step backward. The presenter needs to assess the key message, preferably one or not more than three, that the poster aims to present to the audience.[5] This is elementary to a successful poster and often demands a bit of intuition and creativity to grasp the attention of the audience. Though it superficially appears as a herculean task, in reality, this is what we usually communicate to our colleagues, while in an elevator with them or while passing by in the coffee shop. When such conversations are rewinded, one can quickly isolate the message and key words of the study as well. The titling is done accordingly. For example, you wanted to report a case of psychosis in Duchenne muscular dystrophy (DMD), the most obvious title would be - 'Duchenne muscular dystrophy presenting with psychosis: A case report'. If one intends to convey the message that - we know the genetic etiology of DMD (DNA variants in the DMD genes) but we are still in the dark with regard to psychosis, and that this case report could offer more clarity. Then would not the more appropriate and catchy title be - 'DMD gene: new insights into psychosis' or 'Duchenne muscular dystrophy: a new gateway to understanding schizophrenia'. This title appears on the top as heading in legible font and color. The title should preferably be simple, short, less than 10 to 12 words, and could invoke curiosity without giving away the complete message. It may also be wise to consider that it is acceptable to have a title that would be sensational but preferably not too controversial.
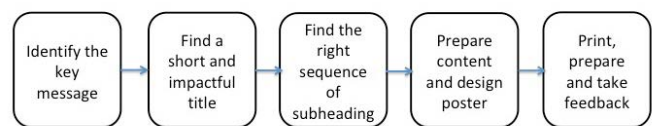

Figure 2: Steps to conceptualizing and making an effective poster

Table 1: Key differences between oral and poster presentation

Presentation type	Oral	Poster
Presentation aid	Power point presentation/video/ or none	Poster
Time	Usually ≤ 10–15 minutes	Seconds to several minutes
Contact with audience	Once only	Several times in groups or as individuals
Interaction with audience	During QnA session immediately after talk	Several interactions over days
Nature of interaction	Lecture method (excluding the QnA session	Interactive method
Importance on CV	Sometimes more than poster	Considered
Expenses	No particular costs	Costs of printing, carrying poster etc.

Format and Sequence

Usually, the format and sequence of sub-headings of a study are used for posters as well. After the title, the authors and their affiliations follow in relatively smaller font size below. In this area, clear and legible logos can appear on the sides. Following this, the content of the research appears in the serial format of subsections, i.e., introduction (significance of the study), objectives (purpose), methods (explain the approach), results (findings), discussion (inferences and comparison), conclusion (end remarks and implications), and references (validating the work). A well abstracted poster might not require another dedicated space for mentioning the abstract of the study. For further want of space, introduction and goals (aims and objectives) could be under a single heading. Similarly, discussion and conclusion can also be clubbed together.

This is also the traditional way research articles are usually written. However, the style of presentation for poster or oral presentation or can be different. This is a very interesting perspective that we learnt. So, in some cases, a short and impactful title can be followed by the conclusion, before or right after the introduction. For example, in the above-mentioned example of a case report, conclusion could be mentioned as 'the genetic etiology of DMD is well understood. Through this case report, we propose that *so-and-so* DNA variant of DMD could be associated with psychosis. This could be a possible gateway to understanding psychosis through the established genetic pathways of DMD.' This is not mandatory but can be considered for an impactful presentation, especially because most only spend a few seconds to minutes while visiting poster presentations.[6] So, any sequence of headings that can bring a logical stream to the presentation should be encouraged.

The number of lines recommended for each of the subsections are objectives - 2 lines, methods - 6 lines in bullet points, results - 12 lines, discussion - 5 lines, conclusions - 3 lines and references - 4 lines, acknowledgement and other disclosures can appear in a corner. A few pictures along the text can be encouraged but need to be judiciously used with margins.

Poster Layout

The standard poster size accepted usually is length 4 ft / 120 cm and width of 3 ft / 90 cm. The conferences also give their recommendations which need to be adhered to prevent encroachment of neighboring space as well as for the best utilization of the space provided. This may not be a major issue when the poster presentation is digitalized, but the size of the electronic board and the number of slides permitted needs to be enquired before the finalization of the presentation. A one-inch white margin could also be recommended, which enhances visibility and additionally allows space for pins or tape for display.

Many students might find it comfortable to design their poster on Microsoft PowerPoint itself. The size can be adjusted by clicking on page setup or slide size and entering the required measurements before beginning to create the poster itself. Through a google search, once can find websites of various universities which offer downloadable templates with pre-determined sizes for readymade use. Figure 2 in this article provides a sample template of the poster.

Font Size

It may sound trivial, but it is an important factor that determines the readability of the poster. The title must be readable from a distance of at least 15 feet (recommended font size >80 points) and the text must be readable from a distance of at least 3 feet (font size > 60 for headings, and > 30 points for text). At the same time, spacing of the lines which is 1.5 to 3 mm is encouraged.

Color

It is another powerful tool to attract attention, emphasis and aesthetic appeal. It is recommended that the background is of lighter or sober colors such as light sky blue, pale pink, beige and pastel mint green. To showcase a point, some boxes could have electric pink or lime green on occasion. The letters need to be in dark colors. However, this color combination should be complementary. Some presenters even match their dress to complement their posters!

Representation of Statistical Data

Often, to make the study self-explanatory and complete, all the statistical tables are included. This overloads the poster and overburdens the audience. Selected data with appropriate diagrammatic representation to effectively communicate the chosen message is often sufficient.

Printing the Poster

A poster may require multiple edits (such as spacing, color contrast, margins, poster size) before its final printing. One can see how a poster looks through a sample print on a B3 size paper. It is prudent to send the poster for printing at least a week before your travel date. This would allow you time to finalize the draft before printing and take a look at the printed poster as well. It also recommended to print your poster on an eco-friendly paper rather than vinyl banners (flex sheets). The finish of the poster may also enhance the aesthetics of the poster such as gloss finish.

Preparing the Talk

Preparing the poster does not end the game. Poster presentations are different from oral presentations. Figure 3 compares both. Unlike oral presentations, poster presenters get more chances and more time to present their findings. This allows greater flexibility in conversations. However, this flexibility can work against one's favor when the audience may judge the poster as interesting or move away with only a glance.

Like an oral presentation, poster presentations also benefit with rehearsal. One can request a friend to listen to the rehearsal for comments and feedback on timing and understanding. If the conference is a general one, feedback from a friend from a different technical background can go a long way.

Other Recommendations

It is often prudent to put up posters early (as per allotted slots in the conference or visibility on first-come basis), carry tools (scissors and tape) to put up the poster. For a portable read and further correspondence, one can also carry a few copies of poster in A4 format in a two-minute summary with the authors' affiliation, phone and email contact.
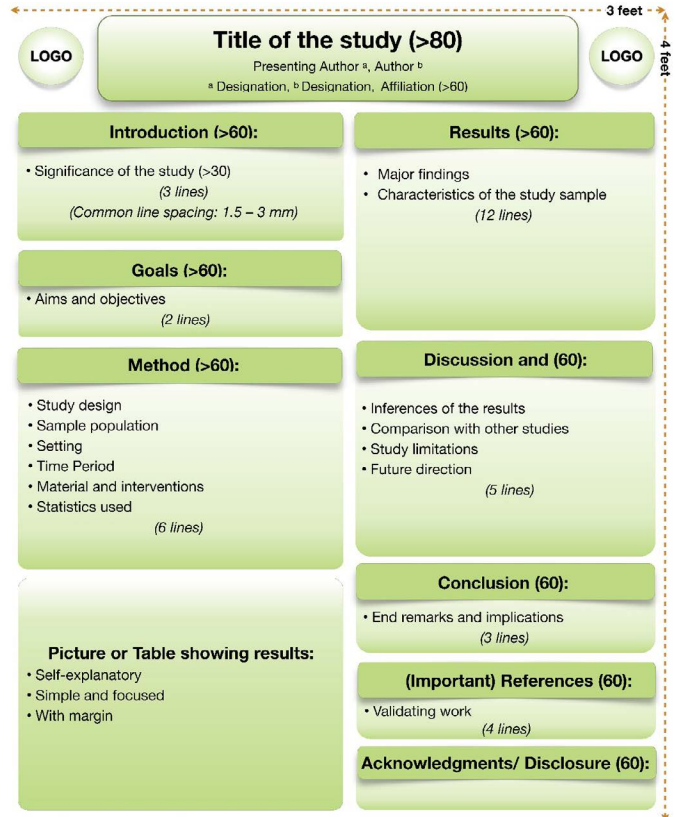

Figure 3: Layout of the poster (font size mentioned in brackets)

Postgraduate trainees and early career psychiatrists might find it encouraging that several awards are available for poster presentations at various conferences. As case reports are mostly presented as posters, presenting an original study for a poster might increase the chances of winning an award. The judges usually evaluate posters on the parameters of relevance of topic, content and presentation. It is good to distance yourself as a presenter and step into the shoes of the evaluators/audience. While many resources on the internet consider oral presentations superior to posters on a curriculum vitae (CV), this need not always be so. Most definitely, an award-winning poster is better than a oral presentation on the CV. Finally, a foldable chair is an option that can be considered, especially when you have health problems that may worsen with prolonged standing or wearing high heels!

CONCLUSIONS

Poster presentations are first steps to building confidence for postgraduate trainees and early

career psychiatrists among their circles. However, poster presentations have not been given their due recognition and an overall fall in their standards have been reported. During the ongoing COVID-19 pandemic, several conferences are being conducted online and posters in the form of e-posters are being encouraged. The article provides essential considerations for the making of a effective poster which can be utilized for making of an e-poster as well. It is prudent to cautiously explore and experiment with the guidelines and learnings listed here to suit the early career psychiatrist style. With relevant modifications, these gleanings can be utilized to benefit other medical professionals as well.

Acknowledgement

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