

## ORIGINAL ARTICLE

# Poster Exhibitions at National Conferences: Education or Farce?

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## SUMMARY

**Introduction:** The so-called poster exhibition is an established element of medical meetings which often receives little attention. The aim of this study was to analyze the organization, acceptance and value of poster exhibitions.

**Methods:** Interview based study conducted during the annual meeting of a German specialist medical conference. A total of 247 attendees, poster authors and „poster chairpersons“ were interviewed. Attendance at poster exhibitions was documented, the poster review and award process analyzed, and abstracts assessed for redundancy of presentation.

**Results:** Participation in poster exhibitions was very low. Despite this, their scientific value was esteemed high by young authors and the poster chairpersons. Almost a third (29.4%) of posters had been displayed at other meetings. Several attendees (55.4%) and poster presenters (49.1%) say they would welcome the opportunity for personal one-on-one discussion at the poster in addition to poster viewing.

**Discussion:** The option of additional personal discussion with the poster presenter may lead to an increase of the rather modest participation of attendees at poster exhibitions. Poster exhibitions are of value in particular for young scientists and poster chairpersons.

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**Key words:** congress, poster exhibition, abstract, redundancy, quality management

Chairpersons of medical conferences usually allow a central place in the program for poster exhibitions. Moderated poster presentations often take place during lunch breaks on the main conference days. These presentations compete only with the satellite symposia organized by the pharmaceutical industry. In contrast to the prominent positioning of poster exhibitions in conference programs, conference delegates' interest in and attendance at poster presentations at national (and sometimes international) specialist medical conferences is occasionally rather modest. Who benefits from poster exhibitions? To whom are they useful? How might they be made more attractive? Should they even be organized at all?

There are some studies relating to partial aspects of poster exhibitions at non-German specialist conferences, e.g., about the process of abstract selection for diverse conferences (1–11), electronic posters (12, 13), and the publication rate of conference contributions (14–20). Further studies have shed light on the motivation of authors to design a poster (21), redundant poster contributions (22, 23), or the time spent by conference delegates in studying a poster (24).

This study aims to present systematically and prospectively the poster exhibition of a German specialist medical conference as a platform for presenting current research findings in terms of its acceptance and perceived value.

The selection process for contributions and the poster awards, the scientific and personal benefits of the poster exhibition for its authors, chairpersons, and visitors were studied systematically. The number of participants at the individual poster presentations was documented and compared with the number of poster contributions on offer.

## Materials and methods

The poster exhibition of the annual meeting of the German Society of Digestive and Metabolic Diseases (DGVS, 2002) was selected for our analysis as the most important annual national medical conferences in this subspecialty. The poster exhibition of the conference was organized in the format of 38 presentations in two days, headed by two poster chairpersons each. An average of 10.1 posters (range 8 to 12) was combined in each viewing. A total of 388 posters were shown.

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Different questionnaires were composed for the purpose of standardized interviews with the three groups of the poster authors, poster chairpersons, and other conference delegates, and anonymized data were collected. Most of the questions were multiple choice questions.

Participants were addressed by casual selection – every one in five conference delegates, every one in two poster chairpersons, and every one in three poster authors – on site and were interviewed there. The group sizes of the 19 daily poster presentations were counted at the start of the viewing.

The chairpersons of a selection committee that had chosen the abstracts presented at the conference received a questionnaire survey after the conference, for the purpose of gathering information on the committee's tasks and working methods.

We compared the 386 posters of the DGVS conference that were recorded in the *Zeitschrift für Gastroenterologie* (German Journal of Gastroenterology) (25) with those of the volumes of abstracts of the Digestive Disease Week 2002 and the DGIM (German Society of Internal Medicine) 2002 as examples, to investigate redundant poster presentations with regard to these three conferences. Contributions that listed identical authors and key words in their titles, as well as identical methods and case numbers, were defined as multiple presentations.

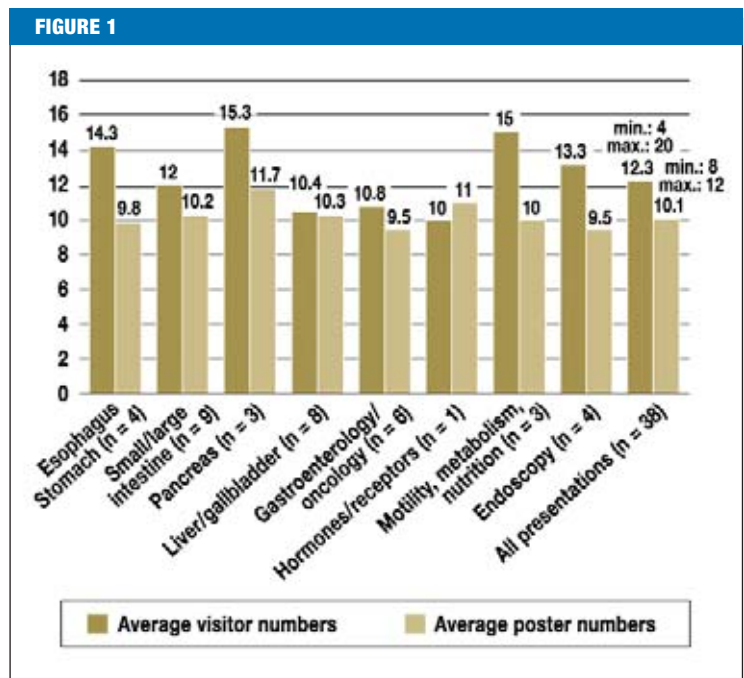
## Results

Of a total of 2100 conference delegates, 247 (11.7%) participated in the survey. Altogether 122 authors of posters, 26 chairpersons, and 99 further conference participants were interviewed by using the prepared questionnaire survey and by chance selection.

The highest proportions in all named groups of persons were employed at university hospitals: 92.6% of the poster authors, 80.8% of the poster chairpersons, 45.5% conference participants. Most (73.8%) of the 122 poster authors who were interviewed were male, and 45.9% in this group were working as interns almost exclusively at university hospitals (92.6%). Those younger than 35 were particularly well represented as a group among authors (59.0%), in contrast to poster chairpersons (7.7%) and other conference delegates (29.2%).

Among the poster chairpersons, the proportion of those working at university hospitals was high (80.8%). Poster chairpersons were particularly fellows (61.5%). The proportion of female poster chairpersons was some 4% (n = 1). Among the conference participants who were neither authors nor chairs, those who were not employed in a university hospital worked in a hospital with maximal care facilities (the top level of hospital care in Germany) (14.1%), other hospitals (24.2%), or a specialty practice in primary care (12.1%).

When asked about their knowledge regarding poster selection, 54.1% of interviewed poster authors (n = 121) and 57.9% of conference delegates (n = 98) responded that they knew nothing about this process.



Average numbers of visitors and posters of presentations on individual topics

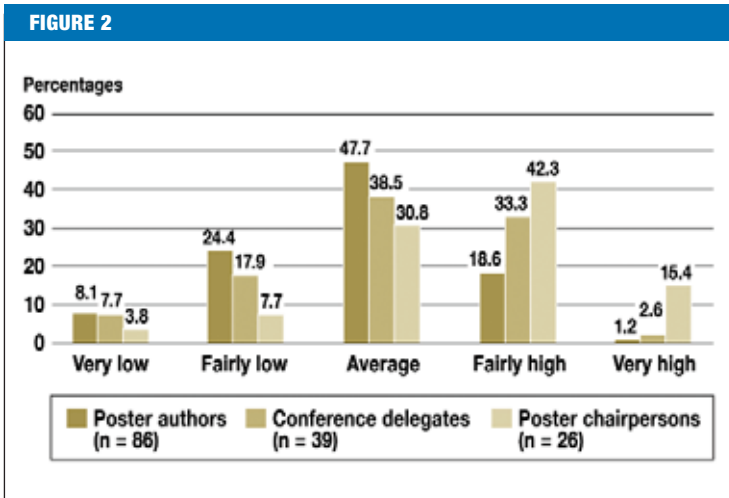
As the most important motives for composing a poster, poster authors reported promotion of their scientific reputation (94.2%), representation of their hospital (92.6%), possible stimuli for research projects (88.5%), followed by new contacts (79.5%) and encouragement from their superiors (64.8%). Slightly less important were participation in the conference thanks to the poster contribution (59.8%) and the possibility of winning a poster award (21.3%).

Anonymous responses from the authors showed that 29.5% of posters had been shown at other conferences. When the 386 poster abstracts were checked for redundancy, it was found that 78 (20.2%) had already been presented at the Digestive Diseases Week in the United States. Altogether, the rate of redundant abstracts for the three conferences mentioned above was 21.8%.

In the context of the survey of conference delegates, 85.9% reported having visited the poster exhibition, and 39.4% reported having participated in a moderated poster presentation.

The average number of participants in individual moderated poster presentations was 12.3 persons per group, and an average of 10.1 (range 8 to 12) posters were presented per presentation (figure 1). Altogether, 467 persons participated in the 38 moderated poster presentations.

The questionnaires also captured respondents' assessment of the overall scientific value of the moderated poster presentations. Poster chairpersons placed a higher value on these than poster authors and conference delegates. The poster chairpersons rated their scientific value as "very high" (15.4%) or "fairly



Rating of the overall scientific value of poster presentations

high" (42.3%), whereas this was the case for only 2.6% and 30.8% of the conference delegates and for 0% and 24.4% of poster authors (figure 2).

The value of the discussion during moderated poster presentations was assessed in a similar way (figure 3). Poster chairpersons (42.3% "fairly high", 15.4% "very high"; n = 26) rank the value higher than conference delegates (33.3% "fairly high", 2.6% "very high"; n = 39) and poster authors (18.6% "fairly high", 1.2% "very high"; n = 86).

When the experience of the authors in assembling their poster was compared with their statements about the usefulness of the discussion and the overall value of the viewing, the proportion of interviewees who had been composing posters for less than three years found the poster discussion clearly more valuable than the proportion of colleagues who had been presenting posters for longer (figure 4).

The total number of posters was 388. When asked for the number of posters to be presented, most (73.2%) of respondents spoke in favor of keeping this amount. The usual 5 to 10 minutes per presentation was also most favored by most respondents (53.1%).

When asked for their preferred system of poster discussion, 91.3% of poster chairpersons favored the moderated presentation, rather than individual discussions with the poster authors (figure 5). Of the conference delegates, however, 55.4% favored individual discussions, as did 49.1% of the poster authors.

The return rate of the questionnaires sent to the 11 chairpersons of the selection committee was 100%. Seven chairpersons declared that they had not been asked by the DGVS to check abstracts for publication of the data. Nine chairpersons reported that the conference organizers had not given any instructions to check whether the data had already been presented at other conferences.

Nine chairpersons had not been included in deciding on the most appropriate presentational format (no

data: one chairperson). Of those surveyed, seven chairpersons reported that they would have liked to have more involvement in this.

Altogether 68.3% of poster authors and 65.7% of conference delegates reported not being aware of the process of deciding on poster awards. From each poster session, the respective poster chairperson selected one award-worthy poster. At a meeting of chairpersons it was decided which posters should receive an award.

**Discussion**

Poster exhibitions are an established ingredient of medical conferences – even smaller gatherings with fewer than 400 participants usually feature a poster exhibition. Poster exhibitions and moderated presentations usually take place during the conference lunch breaks; at the most they compete with the offerings of the industry satellite symposia. Conference presidents also always issue invitations to visit the poster exhibitions. In spite of all this, visitors often find deserted rows of display walls. Individual groups of up to 10 people may be encountered – visitors who move from poster to poster, their participant numbers often dwindling the longer the presentation is going on. An often heard phrase is: "What a farce, this poster exhibition . . ."

Systematic data collection confirmed the observation of low visitor numbers. Per moderated poster presentation group, an average of 13.6 participants was noted on the first day and 10.9 on the second day. This includes the two poster chairpersons as well as the authors of the 10.2 posters (average) that were discussed per viewing. Altogether, 467 persons were present during the two days – 22.2% of registered conference delegates.

Surprisingly, 46.4% of conference delegates surveyed reported having noticed the poster presentations. However, an orientation along current norms and expectations may have a role in this finding. The fact that the method of "chance selection" of interviewees does not result in a representative sample of all gastroenterologists or doctors in the narrower sense is a clear limitation.

The different affiliations of poster authors and exhibition visitors may also be important. The proportion of poster authors working at university hospitals was 93%, but merely 45.5% among conference delegates. Most conference visitors' interests may not be covered by a poster exhibition predominantly showing experimental work.

However, the survey of poster authors and chairpersons yielded further interesting data that document a benefit of poster moderated presentations for this group of conference participants. Of the poster authors, 59% were younger than 35, and 45.9% of authors were interns. The proportion of these among all conference participants was only 6%, however. This means that a higher than average proportion of young doctors and scientists use posters as their opportunity

to present their research findings. Indeed, the personal and scientific value attributed to the poster presentation was mainly positive especially among the younger authors – the presentation of data in front of one chairperson and a small group of other specialists in the same research area was also welcomed by younger colleagues. Almost half of the authors were even in favor of the formal system of moderated poster presentations by chairpersons.

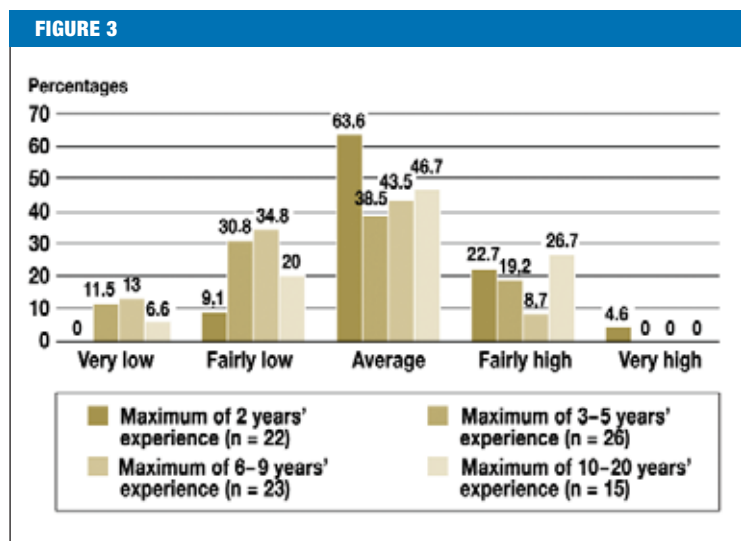
The findings from interviewing the chairpersons of the poster presentations were even more impressive in this respect. They rate the scientific value positive, and 91.3% would not want to give up the chair role in a moderated poster presentation in favor of individual discussions. Chairing a poster presentation is listed in the program and is for those affected (mostly fellows at university hospitals) a "well loved honorary office" with potentially "career promoting benefits."

Another aim of this study was an analysis of the acceptance of the structural cornerstones of the poster exhibition.

The data collection showed that the total number of 388 posters for this specialist conference with more than 1000 participants was universally welcomed. In rating the time frame, most confirmed the usual time of 5 to 10 minutes per poster. The time spans reported by conference visitors for individual study of individual posters is also in this range: 94.1% of conference delegates spent 3 to 9 minutes on independent study of a poster.

Most of the people surveyed were unfamiliar with the selection process for abstracts. Even the poster authors, who may be assumed to have been more engaged with the review of abstracts, were only slightly better informed than the other conference delegates. The chairpersons of the selection committee, when questioned, indicated that they would welcome more say as to which mode of presentation is most appropriate for the accepted abstracts. Although the DGVS president decided, according to the society's statutes (section II paragraph 6), "in agreement with the selection committee," which accepted contributions will be presented as speaker presentations or posters, most of those surveyed had not been included in this decision. It seems sensible and appropriate that the selection committee's chairpersons, who had already studied the abstracts in detail, should suggest or decide on the appropriate presentational format for conference contributions. On the other hand, it is the privilege and simultaneous responsibility of the conference president – in contributions of equal value – to decide on the speaker seminars in the interest of all conference delegates.

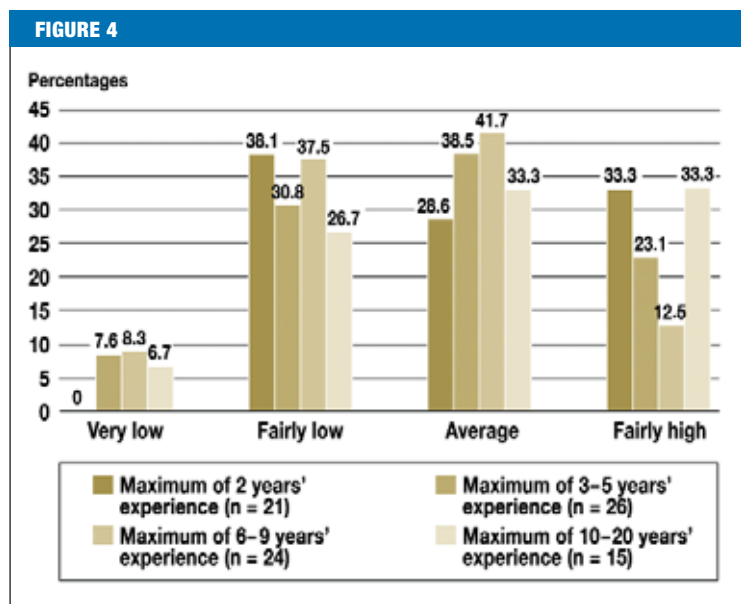
Because of their in-depth knowledge, the reviewers should be substantially involved in the poster awards. The program brochure of the following year's conference said that the future selection process was going to be determined by the elected main reviewers of the individual selection committees and the respective chairpersons of the poster presentations (25).



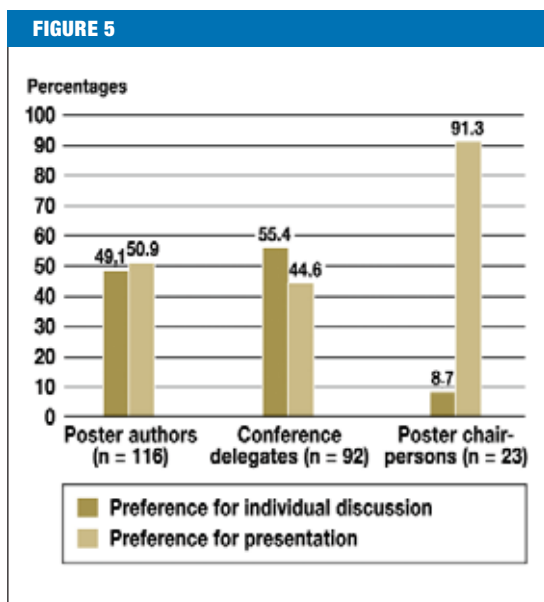
Rating of the value of discussions during the presentation

It was not systematically checked whether the contributions had already been presented at other conferences. According to the interviewees, however, 29.5% of the posters had been presented previously. This high proportion was confirmed by the authors' own research: 21.8% were found to be identical with abstracts that had been previously presented at two other conferences.

The extent to which the repeated presentation of already shown data will be permitted with official approval in poster exhibitions of national conferences should be discussed by the specialist societies. Young scientists obviously appreciate the opportunity to



Influence of the experience of poster authors on their assessment of the value of the poster discussion



Preferences of survey participants regarding moderated poster presentation versus individual discussion with the poster authors

practice their presentations. This is possibly of help in improving the quality of presentations of German contributions on the international stage.

**Conclusions**

The systematic analysis of the poster exhibition of a national German specialist medical conference shows that such exhibitions are by no means merely farcical in the view of young scientists and chairpersons. For young researchers, who are mostly working in a university setting, moderated poster exhibitions present a platform that enables them to present their own data to a small but specialized audience and to the chairpersons – personal and professional benefits are estimated to be high. Moderated poster presentations are also a popular and useful platform for the chairpersons, which documents recognition in the research area and in the specialist society. The modest participation rates of most conference visitors in the poster exhibition is regrettable but understandable, bearing in mind that the interests of most conference delegates, who mostly work in clinical practice, are not really reflected in the university related and scientifically oriented poster exhibitions. The opportunity of individual discussion of a poster might allow clinicians to study selected posters in more detail and to show their support for young researchers of the specialist societies.

**Conflict of interest statement**

The authors declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.

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**Erratum:**

Regarding the article "Cardiovascular Risk Factors and Signs of Subclinical Atherosclerosis in the Heinz Nixdorf Recall Study" by Erbel et al.

*Dtsch Arztebl Int* 2008; 105(1–2): 1–8

In the above mentioned article, an error occurred in reference 14.

The correct reference is:

14. Hunold P, Vogt FM, Schmermund A et al.: Radiation exposure during cardiac CT: effective doses at multi-detector row CT and electron-beam CT. *Radiology* 2003; 226: 145–52.

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