

The effects of COVID-19 pandemic on paper participation in national ophthalmology meetings

COVID-19 pandemisinin ulusal göz hastalıkları toplantılarındaki bildiri katılımı üzerine etkileri

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Abstract

Purpose: The aim of the current study is to evaluate the effect of COVID-19 pandemic on paper participation in national ophthalmology meetings held by the Turkish Ophthalmology Association (TOA).

Materials and methods: The data for the previous national ophthalmology meetings held by the TOA were gathered retrospectively from the TOA website. The COVID-19 pandemic-related online sessions and meetings with a scheduled in-person follow-up were taken into consideration. The number of poster and oral presentations and subject areas of the papers were recorded.

Results: The total number of poster and oral presentations in online meetings was 1505, while it was 1294 in face-to-face meetings (a 14.0% difference). Regarding poster presentations, a total of 1001 posters were presented in online meetings, whereas number of poster presentations was 865 in face-to-face meetings. Similarly, in online meetings, the number of oral presentations was 504, while it was 429 in face-to-face meetings. This finding demonstrated both poster and oral presentation participation was higher by 13.5% and 14.8% (respectively) in online meetings than in the face-to-face meetings.

Conclusion: It appears that national ophthalmology meetings held online during the COVID-19 pandemic had a favorable impact on the paper submission rate, and online meetings made sure that scientific sharing and collaboration continued and made it accessible to wider populations.

Keywords: COVID 19, meeting, ophthalmology, presentation.

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Öz

Amaç: Bu çalışmanın amacı, Türk Oftalmoloji Derneği (TOD) tarafından düzenlenen ulusal oftalmoloji toplantılarındaki bildiri katılımına COVID-19 pandemisinin etkisinin değerlendirilmesidir.

Gereç ve yöntem: TOD tarafından daha önce gerçekleştirilen ulusal oftalmoloji toplantılarına ait veriler TOD web sitesinden retrospektif olarak derlendi. COVID-19 pandemisi ile ilgili online ve planlanmış yüz yüze müteakip toplantılar dikkate alındı. Poster ve sözlü bildiri sayıları ve bildirilerin konu alanları kaydedildi.

Bulgular: Online toplantılarda toplam poster ve sözlü sunum sayısı 1505 iken yüz yüze toplantılarda bu sayı 1294 oldu (%14,0 fark). Poster sunumları ile ilgili olarak, online toplantılarda toplam 1001 poster sunumu yapılırken, yüz yüze yapılan toplantılarda poster sunumu sayısı 865 olarak gerçekleşti. Benzer şekilde online toplantılarda sözlü sunum sayısı 504, yüz yüze toplantılarda ise 429 oldu. Bu bulgu, çevrimiçi toplantılarda hem poster hem de sözlü sunum katılımının yüz yüze toplantılara göre (sırasıyla) %13,5 ve %14,8 oranında daha yüksek olduğunu göstermiştir.

Sonuç: COVID-19 salgını sırasında çevrimiçi olarak gerçekleştirilen ulusal oftalmoloji toplantılarının bildiri gönderim oranını olumlu yönde etkilediği ve çevrimiçi toplantıların bilimsel paylaşım ve iş birliğinin devam etmesini ve daha geniş popülasyonlara erişilebilir olmasını sağladığı görülmektedir.

Anahtar kelimeler: COVID 19, toplantı, göz hastalıkları, sunum.

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Introduction

The global health systems were drastically impacted by the Corona virus disease (COVID-19) pandemic, which began in 2019, and many industries underwent significant adjustments as a result [1]. Academic meetings were also affected and could not be held face-to-face due to the high risk of disease transmission person to person [2]. Under these circumstances, scientific events such international and national ophthalmology meetings had to be organized online on online platforms [3-9].

Traditional face-to-face meetings have been substituted with online ones, which also brought several advantages such as lower geographical restrictions for the participants, more flexible personal schedule, and lower costs associated with transfer and accommodation. On the other hand, it is also critical to evaluate the positive and negative impacts of the online meetings on scientific quality.

The primary objective of this study was to examine the statistical distribution and trends of the participants submitting papers at the national ophthalmology meetings organized online by the Turkish Ophthalmology Association (TOA). Understanding the effect of the COVID-19 outbreak on academic activities will be an important source of information for healthcare professionals, researchers and congress organizers working in the field of ophthalmology [10-14].

Furthermore, the present study also aimed to dive into the impact of online ophthalmology meetings on the attendees, and to weigh the benefits and drawbacks of this platform. With the results of the study on how online meetings affect many aspects of event organization, participant experiences, knowledge sharing, and networking, recommendations can be made for more effective and efficient design of future meetings under challenging conditions.

Materials and methods

This retrospective descriptive cross-sectional study was carried out to evaluate the effect of the COVID-19 pandemic on the participation of papers in national ophthalmology meetings held online. The TOA website was used to collect the data related to the past national ophthalmology meetings organized by the TOA [15]. This study does not require ethics committee approval.

The TOA website has a comprehensive congress archive and past meetings can be accessed through this archive.

In this study, the meetings held online due to the COVID-19 pandemic (*2019 Summer Meeting, 2020 March Meeting, 2020 National Meeting, 2021 Spring Meeting, 2021 Winter Meeting*) and face-to-face versions of the aforementioned meetings (*2021 Summer Meeting, 2022 March Meeting, 2021 National Meeting, 2022 Spring Meeting, 2022 Winter Meeting*) were compared. Data such as the papers presented in meetings and the number of participants were obtained. For the analysis of the paper participation, among the meetings online, those who have a booklet were primarily determined. These booklets included abstracts of the presented papers, the names of the researchers and their institutions.

The Statistical Package for Social Sciences (SPSS) version 24 (IBM SPSS Statistics Inc., Chicago, IL, USA) was used for statistical analysis. Data was presented as frequency and percentages. Chi square test was used to compare categorical data between the online and face-to-face meetings. A p value <0.05 indicated statistical significance at a 95% confidence interval.

Results

The findings were evaluated over the five national meetings held by the TOA. It has been observed that online meetings reveal a significant difference in paper participation compared to face-to-face meetings. Considering the total number of papers, while the total number of poster and oral presentations presented in online meetings was 1505, this number was found to be 1294 in face-to-face meetings. These findings show that total paper participation in online meetings was higher by 14.0% compared to the face-to-face meetings. Focusing on poster presentations, the number of poster presentations presented in online meetings was 1001, whereas 865 posters were presented in face-to-face meetings.

Similarly, the number of oral presentations was 504 in online meetings, while this number was 429 in face-to-face meetings. This data reveals that both poster and oral presentation participation was higher by 13.5% and 14.8% in online meetings than in the face-to-face meetings. Chi square analysis showed no

statistically significant difference between online and face-to-face meetings regarding type of the presentation (i.e. poster or oral presentation) ($p=0.851$). Figure 1 shows comparison of number of presentations between the online and face-to-face meetings.

This study also evaluated distribution of the presentations regarding subject area (retina, cataract and refractive surgery, glaucoma, cornea, pediatric ophthalmology and others) between online and face-to-face meetings. Briefly, there was a reduction in paper participation in all the aforementioned subject

areas in face-to-face meetings when compared to the online meetings. However, there was no difference between the online and face-to-face meetings in terms of subject area of the presentations ($p=0.977$, Chi square test). Figure 2 demonstrates the details of the distributional data regarding subject area of the papers.

Discussion

The COVID-19 pandemic had a profound impact on the healthcare industry and academic activities around the world. As part of the measures taken to prevent the spread of the

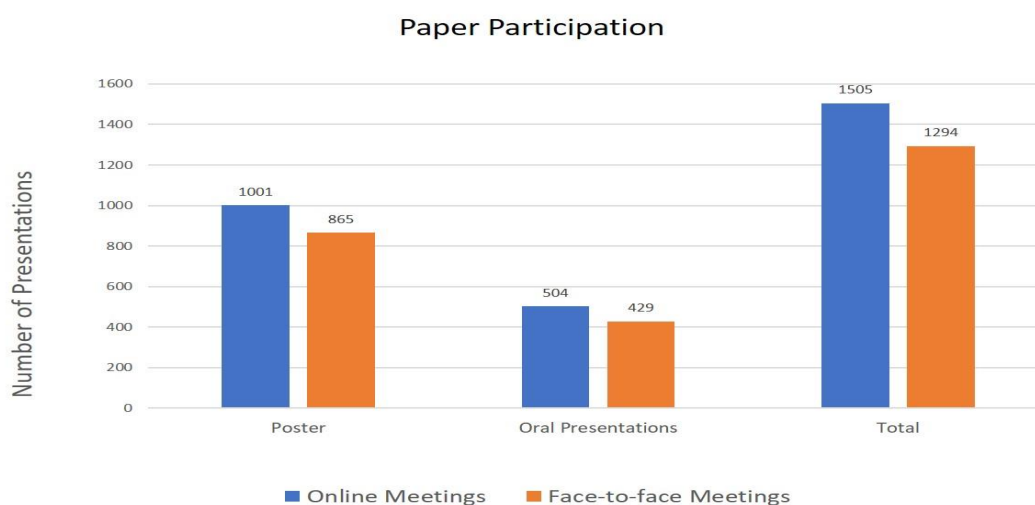


Figure 1. Comparative graph showing paper participation between online and face-to-face national ophthalmology meetings

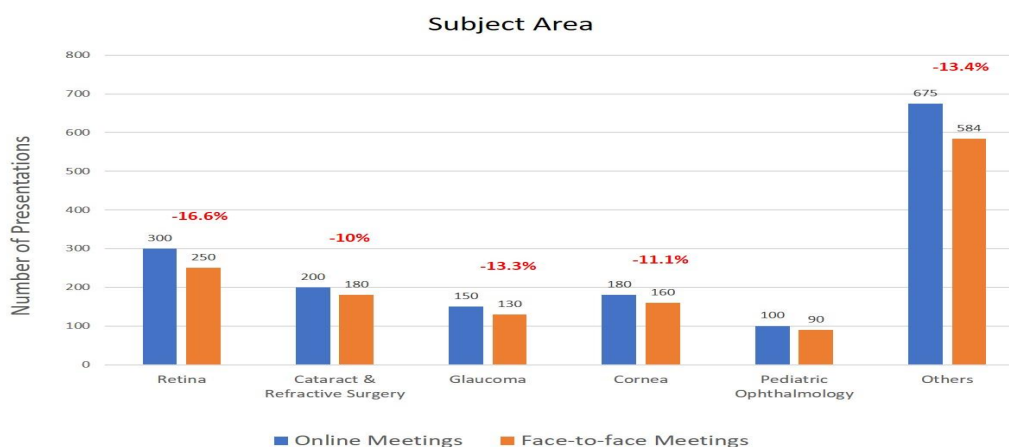


Figure 2. Subject area distribution of the presentations in online and face-to-face national ophthalmology meetings

pandemic, many ophthalmology meetings were held online [4, 11-14]. In this study, the effect of the COVID-19 pandemic on the participation of papers in national ophthalmology meetings was assessed.

The current study showed that the total paper participation was 14.0% higher in online meetings compared to face-to-face meetings. In addition, the number of poster and oral presentations presented in online meetings were also higher by 13.5% and 14.8% (respectively) than in the face-to-face meetings. Several factors might have caused the increase in paper participation in online meetings. First of all, it was difficult or impossible to attend face-to-face meetings due to travel restrictions and social distance measures during the pandemic. Online meetings, on the other hand, eliminated the need for transfer, accommodation and related expenses and provided a more flexible schedule [4-11, 16-20]. These factors encouraged more people to attend the online meetings. In addition, thanks to the technological opportunities offered by online media, participants were able to participate in events even from different geographical regions and different time zones [16-22].

Furthermore, online meetings provide an international platform by enabling scientists and experts from different countries to share their knowledge and experience. This, in turn, contributes to the acceleration of scientific development and the wider perspective of the scientific community [4-8, 16-22].

However, the importance of personal interactions and concrete experiences provided by face-to-face meetings should not be overlooked. It offers participants a different experience with elements such as live presentations, discussions, applications that require manual dexterity, and social interactions. Such events enable scientists to come together to exchange ideas, form new collaborations, and develop their practical skills related to their areas of expertise [4-8, 14, 16, 17].

It should also be stated that online meetings also have some limitations and challenges. The above-mentioned face-to-face interactions, in-depth discussions and social connections cannot be fully achieved in online meetings. Important elements such as, one-by-one

interactions and networking are limited in online meetings. In addition, factors such as technical problems, internet connection problems and difficulty of simultaneous interaction between participants in different time zones can affect the online congress experience and hinder some participants [4-8, 14, 16, 17, 20].

Therefore, it is important to see online meetings as platforms that complement each other and can coexist, rather than completely replacing face-to-face events. New work should focus on developing models and approaches where online and face-to-face activities can coexist and complement each other. In this way, scientific communities can experience a more comprehensive and diverse interaction and learning [9-11, 20, 21].

The potential advantages and limitations of online meetings should be considered when planning and organizing future meetings. It is necessary to improve the technological infrastructure, develop platforms that support interaction, and make innovations that will enrich the participants' experience. In this way, the effectiveness of online meetings can be increased and scientific information sharing can be realized more effectively. Nevertheless, the importance and value of face-to-face meetings should not be forgotten because such events support personal interaction, networking and in-depth discussions [9-11, 20-22].

The findings of this study shed light on the changes in the COVID-19 pandemic process that affect the organization of national meetings in the field of ophthalmology and the structuring of scientific sharing. Although the importance and effectiveness of online meetings have been proven, more research and development studies are required in the future. Improving the technological infrastructure, developing features such as interactive sessions and poster presentations will enable online meetings to be held more effectively and efficiently.

On the other hand, lack of data regarding the types of studies presented in the meetings (cross-sectional, case-control, interventional, etc.), the institutions participating in the research (public or private hospital, university-based, etc.) and gender distribution of the participants might be considered as the limitations of the current study.

In conclusion, it seems that national ophthalmology meetings held in online media during the COVID-19 pandemic process had a positive effect on the participation of papers and online meetings ensured the continuation of scientific sharing and cooperation and provided access to large populations. However, the importance and value of face-to-face activities should not be forgotten. Future work should focus on developing models and approaches where online and face-to-face activities can coexist and complement each other. In this way, scientific communities can experience a more comprehensive and diverse interaction and learning.

Conflict of interest: The authors declare no conflict of interest

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Authors' contributions to the article

I.T. and D.K constructed the main idea and hypothesis of the study, developed the theory and arranged/edited the material and method section, did the evaluation of the data in the Results section. Discussion section of the article written by I.T.

I.T. and D.K reviewed, corrected and approved. In addition, all authors discussed the entire study and approved the final version.