



# Fate of abstracts presented at the Turkish Association of Oral and Maxillofacial Surgeons (TAOMS) meetings between 2007 and 2009

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**Abstract** (J Korean Assoc Oral Maxillofac Surg 2018;44:237-241)

**Objectives:** The aim of this study was to determine the rate of peer-reviewed publication of abstracts presented at the annual meetings of the Turkish Association of Oral and Maxillofacial Surgeons (TAOMS) and to identify the time to publication, subspecialty, and study design.

**Materials and Methods:** All abstracts accepted for presentation at a TAOMS meeting between 2007 and 2009 were identified from a book of abstracts and were searched for publication using PubMed and Google Scholar. The following variables were evaluated: publication rate, type of presentation (oral or poster), time to publication, subspecialty, study design, and name of the journal in which the article was published.

**Results:** A total of 478 abstracts were presented at the TAOMS meetings between 2007 and 2009. Of these, 140 abstracts (29.3%) were subsequently published in peer-reviewed journals, including 38.2% of oral presentations and 26.6% of poster presentations. The mean time from presentation to publication was 22 months. Regarding publication fields, research and emerging technologies presentations had the highest publication rate (100%). With regard to study type, animal study (70.0%) and basic research (55.0%) had the highest publication rates.

**Conclusion:** Only 29.3% of abstracts presented at the TAOMS meeting were subsequently published as full-text articles. This rate was found to be similar to the previously reported publication rates in the field of oral and maxillofacial surgery.

**Key words:** Abstracts, Congresses, Publications, Turkey

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## I. Introduction

Scientific meetings are environments where researchers working in a specialized field come together and share their scientific studies. Many researchers present first results obtained from their studies in these meetings<sup>1</sup>. Scientific studies are presented orally or as posters at a conference. Abstracts presented at these conferences provide a quick way to communicate the latest developments and current trends on various issues to the scientific community<sup>2</sup>. It is a naturally desired result that the papers presented at conferences result

in publications and is also the main aim of many researchers<sup>3</sup>. The publication rate of abstracts presented at meetings in peer-reviewed journals is accepted as a criterion of the scientific level of the meeting<sup>3-5</sup>. On the other hand, it has been shown that publication rates depend on several factors that are independent from the quality of the research<sup>6</sup>. However, it is known that more than half of the presented abstracts at meetings are published in a peer-reviewed journal. In the literature, studies investigating publication rates of abstracts in scientific meetings of the different branches are available. To our knowledge, only four studies were identified regarding publication of oral and maxillofacial surgery (OMFS) presentations<sup>7-10</sup>. In this study, subsequent publication rates of the abstracts presented at a Turkish Association of Oral and Maxillofacial Surgeons (TAOMS) meeting between 2007 and 2009, the time to publication, and the journals that they were published were investigated.

## II. Materials and Methods

All abstracts presented at TAOMS meetings between

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2007 and 2009 were collected from the conference booklets. Subsequent publication in peer-reviewed journals was investigated using PubMed and Google Scholar databases with a comprehensive literature review. To assess full text publication status, the search was started with the first, second, or third author's names using 'OR' in the Boolean investigation operator. When many relevant publications were detected, the investigation was continued to find the right article by combining the author names and keywords that can facilitate the search from titles of abstracts using 'AND' in the Boolean investigation operator. When the full-text article was found, the time between presentation of the article in the conference and publication, the journal name in which it was published, the impact factor of the publishing journal, and the type of presentation (oral or poster) were recorded. Some abstracts were published in various journals before the date of the conference, and a value of zero was assigned to these articles as the time to publication. The study type was also evaluated for each abstract and was classified as prospective studies, retrospective studies, case reports, case series, basic review, technical note, animal study, and basic research (genetic study, cell study, study anatomy, imaging procedure, etc.). In addition, the publication fields of the abstracts (subspecialty) were grouped as congenital and craniofacial deformity, trauma, temporomandibular joint disorders, head and neck oncology, implantology, orthognathic surgery, anatomy, clinical pathology, dentoalveolar surgery, anesthesia and analgesia, reconstructive surgery, research and emerging technologies, endodontic surgery, biomaterials, and others. When available, impact factors of the journals were obtained from the Journal Citation Report for the year in which the article was published. The deadline of April 30, 2015 was chosen as the cutoff publication date.

IBM SPSS Statistics 22.0 software (IBM Co., Armonk, NY, USA) was used for statistical analysis of data. Descriptive statistics were calculated for each variable. The chi-square test was used to identify relationships between categorical variables.  $P < 0.05$  was considered statistically significant.

### III. Results

A total of 478 abstracts were presented as oral and poster presentations at TAOMS meetings between 2007 and 2009. Of these, 140 abstracts were published in peer-reviewed journals through April 30, 2015. The publication rates in 2007, 2008, and 2009 were 30.5%, 27.5%, and 29.7%, respectively.

When the published papers were analyzed according to

type of presentation, 42 of 110 oral presentations (38.2%) and 98 of 368 poster presentations (26.6%) were published after congress. The difference was statistically significant ( $P < 0.05$ ). The publication rates of the abstracts by year of congress are shown in Table 1.

The mean time until publication for abstracts presented in the conferences was found to be  $21.96 \pm 17.43$  (standard deviation) months. Most of the articles (88.6%) were published in journals within four years of presentation in congress. The number of articles published after four years was only 16 (11.4%).

When abstracts were analyzed according to subspecialty, clinical pathology reports were presented most often, with a total of 231 publications. The highest numerical abstract-publication transformation was seen in this field ( $n=56$ ). However, the highest rate of abstract-publication transformation was realized for research and emerging technologies abstracts (100%). When the published abstracts were evaluated according to study type, animal study (70.0%) and basic research (55.0%) had the highest publication rates. On the other hand, case reports had the highest number among all papers ( $n=325$ ) and the highest publication rate (21.8%). Publication rates regarding study types and subspecialties are provided in Table 2.

When examining the journals of these 140 abstracts, it was observed that most studies were published in *Journal of Oral and Maxillofacial Surgery* ( $n=17$ ). Of these 140 abstracts, 86 appeared in just 14 journals, while the remaining 54 papers were published in a total of 47 other journals. (Table 3)

Of the 140 papers, 85 papers (48 of 86 articles published in 14 journals and 37 of 54 articles published in 47 other journals) were indexed by Institute for Scientific Information (ISI) Web of Science.

The average impact factor of the journals published was  $1.41 \pm 0.66$  (determined for 85 publications). The number of

**Table 1.** Publication rate of abstracts according to conference year

| Year | No. of abstracts | Type of presentation | No. of published abstracts (%) |
|------|------------------|----------------------|--------------------------------|
| 2007 | 174              | 38 Oral              | 16 (42.1)                      |
|      |                  | 136 Poster           | 37 (27.2)                      |
| 2008 | 149              | 41 Oral              | 15 (36.6)                      |
|      |                  | 108 Poster           | 26 (24.1)                      |
| 2009 | 155              | 31 Oral              | 11 (35.5)                      |
|      |                  | 124 Poster           | 35 (28.2)                      |

Umit Yolcu et al: Fate of abstracts presented at the Turkish Association of Oral and Maxillofacial Surgeons (TAOMS) meetings between 2007 and 2009. J Korean Assoc Oral Maxillofac Surg 2018

**Table 2.** Publication rates according to study type and publication area

|                                       | No. of abstracts<br>(n=478) | No. of published<br>abstracts (%) |
|---------------------------------------|-----------------------------|-----------------------------------|
| Subspecialty                          |                             |                                   |
| Research and emerging technologies    | 1                           | 1 (100)                           |
| Biomaterials                          | 20                          | 14 (70.0)                         |
| Temporomandibular joint disorders     | 16                          | 9 (56.3)                          |
| Anesthesia and analgesia              | 6                           | 3 (50.0)                          |
| Head and neck oncology                | 15                          | 5 (33.3)                          |
| Congenital and craniofacial deformity | 22                          | 10 (45.5)                         |
| Reconstructive surgery                | 8                           | 4 (50.0)                          |
| Dentoalveolar surgery                 | 76                          | 20 (26.3)                         |
| Trauma                                | 18                          | 5 (27.8)                          |
| Clinical pathology                    | 231                         | 56 (24.2)                         |
| Implantology                          | 42                          | 9 (21.4)                          |
| Endodontic surgery                    | 4                           | 2 (50.0)                          |
| Orthognathic surgery                  | 13                          | 3 (23.1)                          |
| Anatomy                               | 3                           | 0 (0)                             |
| Others                                | 3                           | 0 (0)                             |
| Study design                          |                             |                                   |
| Animal study                          | 20                          | 14 (70.0)                         |
| Basic research                        | 20                          | 11 (55.0)                         |
| Prospective                           | 55                          | 30 (54.5)                         |
| Technical note                        | 3                           | 1 (33.3)                          |
| Retrospective                         | 36                          | 6 (16.7)                          |
| Case report                           | 325                         | 71 (21.8)                         |
| Case series                           | 9                           | 3 (33.3)                          |
| Basic review                          | 10                          | 4 (40.0)                          |

Umit Yolcu et al: Fate of abstracts presented at the Turkish Association of Oral and Maxillofacial Surgeons (TAOMS) meetings between 2007 and 2009. *J Korean Assoc Oral Maxillofac Surg* 2018

articles published in the journals with impact factors <1, between 1 and 2, and >2 were 19 articles (22.4%), 52 articles (61.2%), and 14 articles (16.5%), respectively.

The institutions with the most published reports were Gulhane Military Medical Academy (n=17) and Mayıs University (n=16), Gazi University (n=16), and Istanbul University (n=15). In addition, 97.9% of the published papers (n=137) were derived from national institutions, and 2.1% (n=3) were derived from international institutions.

#### IV. Discussion

Studies regarding the publication rates of papers presented in conferences of various specialty areas of medicine are available in the literature. Previous studies in various specialization fields showed that many reports presented at scientific meetings did not become full-text publications in a peer-reviewed journal<sup>4</sup>. Only a few studies are available that evaluate publication rates in the field of OMFS<sup>7-10</sup>. This study is the only study conducted to determine the publication rates of

**Table 3.** Journals in which abstracts were published (n=140)

| Journal   | No. of published<br>abstracts (%) |
|---|-----------------------------------|
| <i>Journal of Oral and Maxillofacial Surgery</i>                      | 17 (12.1)                         |
| <i>Turkiye Klinikleri Journal of Dental Sciences</i>                  | 15 (10.7)                         |
| <i>Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology</i>    | 10 (7.1)                          |
| <i>Journal of Craniofacial Surgery</i>                                | 6 (4.3)                           |
| <i>The Journal of Dental Faculty of Atatürk University</i>            | 5 (3.6)                           |
| <i>The International Journal of Oral &amp; Maxillofacial Implants</i> | 5 (3.6)                           |
| <i>Cumhuriyet Dental Journal</i>                                      | 5 (3.6)                           |
| <i>British Journal of Oral and Maxillofacial Surgery</i>              | 4 (2.9)                           |
| <i>European Journal of Dentistry</i>                                  | 4 (2.9)                           |
| <i>International Journal of Oral and Maxillofacial Surgery</i>        | 3 (2.1)                           |
| <i>Journal of Oral Science</i>  | 3 (2.1)                           |
| <i>Journal of Biomedical Materials Research Part A</i>                | 3 (2.1)                           |
| <i>ADO Journal of Clinical Sciences</i>                               | 3 (2.1)                           |
| <i>Journal of Gazi University Faculty of Dentistry</i>                | 3 (2.1)                           |
| Others  | 54 (38.6)                         |

Umit Yolcu et al: Fate of abstracts presented at the Turkish Association of Oral and Maxillofacial Surgeons (TAOMS) meetings between 2007 and 2009. *J Korean Assoc Oral Maxillofac Surg* 2018

OMFS abstracts presented at the annual TAOMS meetings.

The primary purpose of scientific research is to introduce new knowledge and to publish study outcomes in the scientific literature. Publishing provides dissemination, exchange, and discussion of knowledge in a broad manner and allows the building of new ideas and research. Additionally, especially in academic world, publication plays a major role in career advancement. For various reasons, many investigation results are not published and go to waste or are not available to the public in a timely manner. In medicine, a cluster of studies on clinical trials demonstrated that most human trials are unreported. Especially for many medical studies involving patients, interruption of work or non-publication of obtained data ultimately creates many ethical problems<sup>11-13</sup>.

Publication rates in different subspecialties vary between 11% and 78%, and the average was reported as 45%<sup>14</sup>. The publication rate was reported as 34.8% for abstracts presented in American Association of Oral and Maxillofacial Surgeons (AAOMS) meetings between 1997 and 1999<sup>7</sup>. A low rate was found (24%) in a study conducted by Rodriguez and Laskin<sup>9</sup> evaluating the publication rate in AAOMS meetings between 2006 and 2009. Collier et al.<sup>8</sup> have found the publication rate to be 27% for abstracts presented at British Association of Oral and Maxillofacial Surgery meetings between 2002 and 2006. The publication rate was found to be 73.8% in American and International Association of Dental Research (IADR) and AAOMS meetings between 2000 and 2010<sup>15</sup>. In this

study, 478 abstracts were evaluated, and the publication rate was found to be 29.3%. Although this ratio falls below the overall average in medical science, it was similar to that of abstracts in the field of OMFS.

Some studies have reported no differences in publication rates of oral and poster presentations, while others have concluded that oral presentations were published more frequently compared to poster presentations<sup>4,5,16-18</sup>. It was determined in our study that oral presentations (38.2%) were published more often than poster presentations (26.6%). The cause may be associated with the preferences of researchers to present studies that have higher scientific quality as an oral presentation instead of a poster, better planning of oral presentations, and a more rigorous selection process for oral presentations by the congressional committee.

It has been reported that most publications occur within two years of congress presentations, and more than 90% of abstracts were published within 4 years<sup>5</sup>. In this study, it was observed that 31.4%, 63.6%, and 88.6% of the articles were published within 1 year, 2 years, and 4 years, respectively.

Presentations with the maximum publication rate presented at the TAOMS congresses were studies conducted in the clinical pathology field. The larger number of publications in the clinical pathology field may be due to clinicians treating many and different kinds of patients in this field. Although it was observed that most papers presented at these congresses between 2007 and 2009 were case reports, animal studies had the maximum publication rate. The reason that animal studies have a higher probability of publication may be associated with the requirement of more rigorous experimental design and planning.

There are studies investigating the reasons why the papers presented at congresses were not subsequently published<sup>6</sup>. The reasons may be that the study was not accepted for publication, that the results and subject of the study were not important enough, poor study design, disagreement among researchers, publications offering the same findings for the studied subject, lack of interest and motivation, and ongoing studies<sup>6</sup>. Although negative findings have been defined as those not to be published in a study conducted by Chapman, many journals have published negative studies with high methodological rigor<sup>11</sup>. However, the concerns of editors that studies with negative results will be cited less and not garner interest for readers reduce the publication possibility of studies with negative results<sup>19</sup>. Travel costs of interns presenting papers at national meetings are usually paid by the training programs. This encourages interns to prepare papers; howev-

er, the absence of a similar award to write articles reduces interest in publication<sup>4</sup>. The lack of Turkish journals in international indexes, the requirement of translation of papers from Turkish to other languages, and difficulties during translation can also be factors<sup>20</sup>. In addition, one of the reasons for less publication in OMFS may be the presence of fewer journals in this field.

Abstract acceptance criteria for a scientific meeting may also affect subsequent full-text publication. Some societies have restricted the amount of work accepted to require higher standards for abstracts presented at meetings to increase competition among participants. This increases the chance of an abstract being published as full text<sup>8,9,13,21,22</sup>. On the other hand, a lot of young trainees are involved in scientific meetings. Therefore, review committees are careful to not discourage trainees from abstract submittal.

As mentioned above, the data obtained from most studies cannot be published and are wasted. Therefore, issues such as measures taken to rectify this situation and strategies to be developed are a focus of many articles<sup>11,13</sup>. Knowing the reasons why papers are not published may lead to the development of encouraging policies for publications such as providing more funding, ensuring the possibility of discussion between authors and editors at conferences, providing publication advisers for interns to facilitate writing and submission of articles; to produce higher-quality publications, professional help for translation, preparing guidelines for solving problems that can occur between researchers, and awards for publications could be considered<sup>8,20,23</sup>. In addition, training on writing in a scientific manner would be helpful for young researchers.

A number of measures can be taken to increase publication, such as improving meeting quality to restrict the number of papers containing case reports and have sanctions for authors of papers not presented but were accepted<sup>8</sup>.

There are some limitations to this study. First, our literature survey was only conducted using PubMed and Google Scholar databases. Scanning the entire directory of search engines may identify further publications. The second limitation is the possibility of errors while scanning. These errors may arise from mistyping of names of authors or persons who scanned. Third, this study did not investigate the reasons for publication. For this reason, further studies that evaluate reasons for publication are needed.

## V. Conclusion

About one-third of papers presented at TAOMS meetings

between 2007 and 2009 were subsequently published in peer-reviewed journals. More rigor in accepting reports for conferences will increase publication rates. In addition, papers submitted to conferences should be carefully prepared, and authors should be encouraged to emphasize solutions for conference presentations to become publications.

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## Authors' Contributions

U.Y. and A.O.K. participated in study design, coordination, data collection and wrote the manuscript. All authors read and approved the final manuscript.

## Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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