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An evaluation of the final results of abstracts presented at the Annual National Congresses of the Turkish Association of Pediatric Surgeons

Ahmet Pirim, Gonca Gerçel, Ali İhsan Anadolulu, Çiğdem Ulukaya Durakbaşa

Abstract

Objectives: The objective of this study was to assess the full-text publication rate of abstracts presented at the Annual National Congresses of the Turkish Association of Pediatric Surgeons (TAPS) and to perform a comprehensive evaluation of the quality and characteristics of the published articles.

Materials and methods: Abstract books were reviewed between 2017 and 2022. Keyword searches were performed in PubMed and Google Scholar using titles and author names to track full-text publications.

Results: A total of 1,289 abstracts were presented at the Annual National Congresses of the TAPS over a five-year period, with an annual mean of 257.8±56.2. Of these abstracts, 50.8% (n=654) were oral presentations, and 49.2% (n=634) were posters. Clinical studies constituted 95% of the abstracts presented. Single-center retrospective studies were the most common study design, with 44.8%. Multicenter studies accounted for only 1.1% of the papers. Of the papers, 271 (21%) were published as full-text articles in 137 different journals, with a mean time to publication of 1.85±1.53 years after the presentation. Of these articles, 125 (46.2%) were published in SCIE (Science Citation Index Expanded)-indexed journals, 43 (15.8%) in ESCI (Emerging Sources Citation Index)-indexed, and 103 (38%) in journals not indexed in WoS (Web of Science). Of the 103 articles published in journals not indexed in WoS, 74 were indexed in the TR Index. Of the journals that included full-text articles, 41.3% (n=112) did not have an impact factor (IF). A total of 107 (67.3%) publications were published in journals with an IF between 1 and 5, while three (1.9%) were published in journals with an IF of 15 or higher. There was no statistically significant difference between the IFs of the journals in which basic science studies and clinical studies were published (p=1.00).

Conclusion: The publication rate of the papers presented at the Annual National Congresses of the TAPS was 21%, which is quite low compared to the rates observed in similar studies. In addition, most of the papers presented were published in journals with low IF. The low number of multicenter and prospective studies is another noteworthy issue. This study reveals the need for national, multidisciplinary, and prospective studies.

Keywords: Abstract, congress, pediatric surgery, publication rate.

The scientific congresses are essential for progressing and disseminating knowledge across various disciplines.[1] These events serve as dynamic platforms where researchers, scholars, and professionals come together to present their latest findings, discuss innovative ideas, and engage in critical debates. By fostering an environment of intellectual exchange, scientific conferences drive innovation, inspire new research directions, and contribute to the collective understanding of complex issues. Additionally, they provide invaluable networking opportunities, allowing participants to form collaborations, share resources, and build professional relationships that can lead to groundbreaking advancements.[1,2]

The presentation of abstracts at these conferences is particularly important, as they summarize fresh research findings and highlight emerging trends before being widely published.[3] The conversion of conference abstracts into full-text publications is essential for the academic community, as it greatly improves the quality and availability of research. Furthermore,

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Correspondence: Gonca Gerçel, MD.

E-mail: goncagercel@gmail.com

Department of Pediatric Surgery, İstanbul Medeniyet University Faculty of Medicine, İstanbul, Türkiye

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the proportion of abstracts that are developed into full-text publications is viewed as a reflection of the conference's overall quality.[1-4]

The Turkish Association of Pediatric Surgeons (TAPS), founded in 1977, has been the cornerstone and driving force behind the collaborative efforts and collective approach of pediatric surgeons in Türkiye for many years.[5] Following the establishment of the association, the first national congress was held in 1981, marking the beginning of a series of regularly organized national congresses by the TAPS. Additionally, some of these national congresses have been organized as large-scale international events, further enhancing their scope and impact.[5]

This study aimed to assess the conversion rate of abstracts presented at the TAPS congresses into full-text publications and to conduct a comprehensive evaluation of the characteristics and quality of the resulting papers.

MATERIALS AND METHODS

The study examined congress proceedings from a five-year period between 2017 and 2022. The year 2020 was excluded from the analysis due to the cancellation of the congress as a result of the COVID-19 (coronavirus disease 2019) pandemic. Additionally, proceedings from the most recent two years were omitted, as an adequate time interval is required for the publication of studies presented at these events. Each abstract book from the remaining five annual meetings was thoroughly reviewed, with every abstract evaluated individually. A detailed list of all study abstracts was then compiled and recorded in an Excel spreadsheet. Publication rates for each year, along with the time taken for publication, were statistically analyzed and compared. As this study was observational in nature and did not involve the use of patient data, approval from an Ethics Committee was not deemed necessary.

Search criteria

To determine the publication status of the presentations in peer-reviewed journals, a search was conducted using PubMed and Google Scholar. The search process involved the names of the authors and the titles of the presented abstracts. Initially, searches were performed using the first, second, and last authors' names. If no corresponding full-text publication was found, further searches were conducted by combining the authors' names with keywords from the abstract title. In instances where discrepancies in the title or author list were noted between the conference abstract and the published paper, the work was considered successfully published only if the methodology and conclusions of the full text were closely aligned with those of the original abstract.

Abstract assessment and study identification

The variables analyzed between published and unpublished abstracts included the year of the meeting, publication rate, time to publication, presentation format (oral *vs.* poster), abstract category (clinical *vs.* basic science), and study design. Study designs were classified as multicenter prospective, multicenter retrospective, single-center prospective, single-center retrospective, systematic review, meta-analysis, animal study, experimental research, survey, or case report. The abstracts were further classified into specific pediatric surgery subspecialties according to the seventh edition of Coran's Pediatric Surgery textbook.[6] They were organized into nine categories: head and neck, abdomen, thorax, genitourinary disorders, major childhood tumors, trauma, transplantation, special areas, and general pediatric surgery.

All published presentations were systematically examined using the Web of Science (WoS) database, where they were categorized based on the type of peer-reviewed journal in which they were published. This classification included categories such as the Science Citation Index Expanded (SCIE), Emerging Sources Citation Index (ESCI), and journals not indexed in WoS. Additionally, the impact factors (IFs) of the journals were evaluated based on their five-year IF ratings.

Statistical analysis

The databases were developed, and statistical analyses were conducted using IBM SPSS version 21.0 software (IBM Corp., Armonk, NY, USA). Quantitative variables were reported as mean±standard deviation (SD), while categorical variables were presented as frequencies (n) and percentages (%). The Kruskal-Wallis test was utilized for data that did not follow a normal distribution. Nonparametric tests were applied for the analysis of categorical data, and the

Mann-Whitney U test was used to evaluate continuous variables. A p-value <0.05 was regarded as statistically significant.

RESULTS

Over a five-year span, a total of 1,289 abstracts were presented at the TAPS annual meetings, with a mean of 257.8±56.2 abstracts per year (range, 206 to 354). Of these, 654 (50.8%) were oral presentations, and 634 (49.2%) were poster presentations. The majority of abstracts focused on clinical research (n=1,224, 95%), and 65 (5%) addressed basic science. The breakdown of study designs included 579 (44.8%) single-center retrospective studies, 541 (42%) case reports, 61 (4.8%) animal studies, 40 (3.1%) single-center prospective studies, 36 (2.8%) surveys, 17 (1.3%) experimental studies, nine (0.7%) multicenter retrospective studies, five (0.4%) multicenter prospective studies, and two (0.1%) meta-analyses.

The abstracts were categorized into various subspecialties within pediatric surgery, with the most common being abdominal surgery (n=478, 37.1%), followed by thoracic surgery (n=226, 17.5%), genitourinary disorders (n=200, 15.5%), major childhood tumors (n=125, 9.7%), general pediatric surgery (n=102, 7.9%), trauma (n=94, 7.3%), head and neck surgery (n=31, 2.4%), special areas (n=23, 1.8%), and transplantation (n=10, 0.8%; Table 1, Figure 1).

Out of 1,289 abstracts, 271 (21%) were published as full-text articles in several journals. The mean number of abstracts published per year was 54.2±22.6 (range, 32 to 89). Specifically, the publication rates by year were as follows: 2017 (n=59, 21.8%), 2018 (n=55, 20.3%), 2019 (n=89, 32.8%), 2021 (n=32, 11.8%), and 2022 (n=36, 13.3%). The mean time between congress presentation and publication was 1.85±1.53 years (range, 0 to 6 years). Furthermore, 49.5% of abstracts

TABLE 1
Parameters investigated in abstracts presented at the Annual National Congresses of TAPS between the years 2017 and 2022

	Congress abstracts		Journal publications		Publication rate
	n	%	n	%	%
Presentation					
Poster	654	50.8	101	37.3	5.4
Oral presentation	634	49.2	171	62.7	26.9
Type of study					
Basic sciences	65	5.0	35	12.9	53.8
Clinical	1,224	95	236	87.1	19.2
Study design					
Multicenter prospective	5	0.4	2	0.7	40
Multicenter retrospective	9	0.7	7	2.6	77.7
Single-center prospective	40	3.1	19	7.0	47.5
Single-center retrospective	579	44.8	132	48.7	22.8
Meta-analysis	2	0.1	2	0.7	100
Animal study	61	4.8	31	11.5	50.8
Experimental	17	1.3	5	1.8	29.4
Survey	36	2.8	12	4.5	33.3
Case report	541	42	61	22.5	11.2
Topic					
Head/neck	31	2.4	9	3.3	29.0
Abdomen	478	37.1	89	32.8	18.6
Thorax	226	17.5	56	20.7	24.7
Genitourinary disorders	200	15.5	37	13.7	18.5
Major tumors of childhood	125	9.7	17	6.3	13.6
Trauma	94	7.3	25	9.2	26.6
Transplantation	10	0.8	4	1.5	40
Special areas	23	1.8	5	1.8	21.7
General	102	7.9	29	10.7	28.4

TAPS: Turkish Association of Pediatric Surgeons.

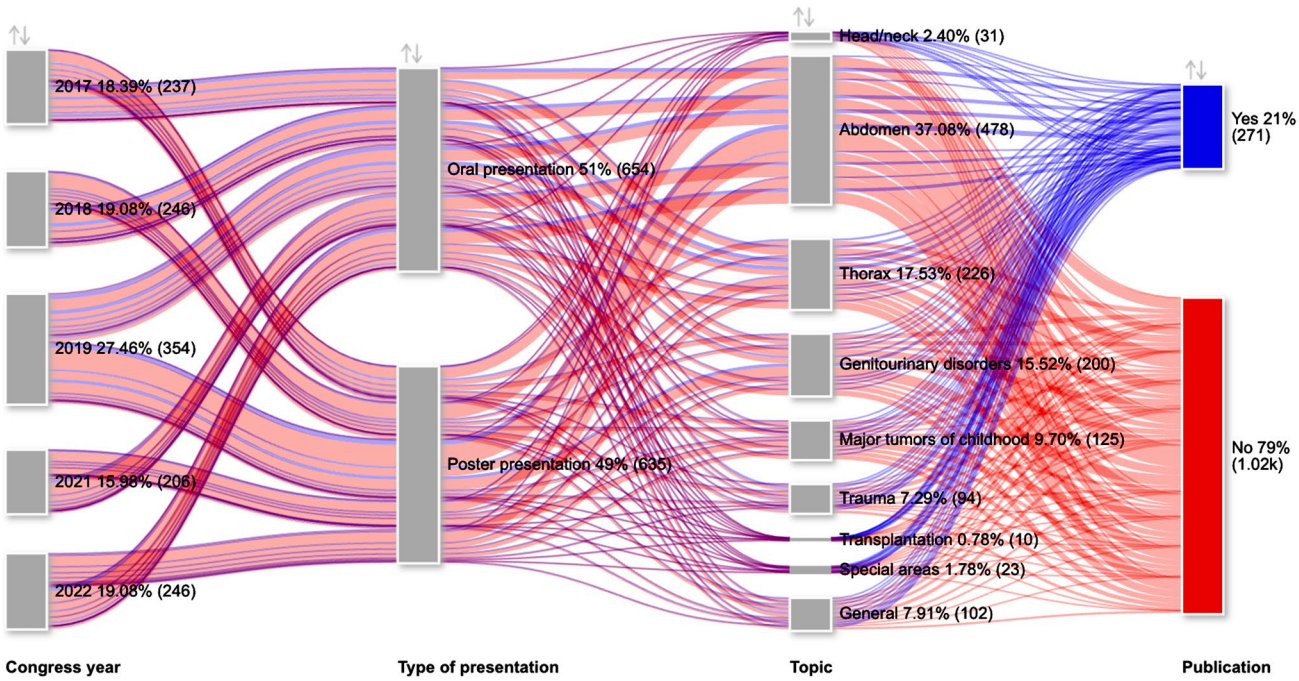

Figure 1. Parameters analyzed in papers presented at the TAPS Annual National Congresses: A Sankey diagram representation.

TAPS: Turkish Association of Pediatric Surgeons.

were published within the first year, and 83.4% were published within three years. The criteria used to assess the published articles are outlined in Table 1.

The articles were classified according to the type of peer-reviewed journals in which they were published: SCIE-indexed journals (n=125, 46.2%), ESCI-indexed journals (n=43, 15.8%), and other journals not indexed in WoS (n=103, 38%). Among the 103 articles not indexed in WoS, 74 were listed in the TR Index. In total, the articles were published across 137 different journals. The five most frequently published journals were Pediatric Surgery International (n=21, 7.7%), Turkish Journal of Pediatric Surgery (n=19, 7%), Turkish Journal of Pediatric Disease (n=12, 4.4%), Journal of Pediatric Surgery (n=9, 3.3%), and European Journal of Pediatric Surgery (n=7, 2.6%).

A total of 57 journals in which the articles were published did not possess an IF. Among the 80 journals with an IF, the mean IF was 1.91±2.73 (range, 0.1 to 25.7). Of these, the IF was <1 in 49 (30.8%) journals, between 1 and 5 in 107 (67.3%) journals, and ≥5 in three (1.9%) journals. The three journals with the highest IF were International Journal of Surgery (15.3), European Respiratory Journal (17.6), and Gastroenterology (25.7). There was no statistically significant difference between the IFs of journals publishing studies on basic sciences and those publishing clinical studies (p=1.00).

DISCUSSION

Scientific congresses play a crucial role in advancing healthcare by providing a platform for the exchange of the latest research and offering valuable opportunities for networking, professional development, and staying up-to-date with emerging trends in the medical field.[7] This issue has been brought to attention in the field of pediatric surgery in Türkiye since 1981 through the annual congresses organized by the TAPS.[5]

The publication rates of papers presented at international surgical specialty conferences have been extensively documented, typically ranging from 20 to 69%.[8-10] In the present study, the

publication rate was 21%, positioning it at the lower threshold compared to existing literature, particularly in relation to international congresses.[8-10] For national congresses of other surgical specialties, such as urology, general surgery, and orthopedics, the publication rates have been reported to range between 5.7 and 29.5%.[11-13] In this context, the publication rate observed in this study is within an acceptable range relative to these national congresses.

A study published in 2004 assessed the publication rates of papers presented at the Annual National Congresses of the TAPS over the preceding five years, reporting a rate of 20%.[14] The observation that publication rates have remained relatively unchanged over the past 20 years is a cause for concern for Turkish pediatric surgeons, highlighting the need for increased efforts to improve the dissemination of research outputs.

The other striking point in the general evaluation of this study was the low rate of prospective studies (2.9%) and multicenter studies (0.5%). Prospective studies are vital as they allow researchers to observe outcomes over time, minimizing recall bias and providing a clearer understanding of cause-and-effect relationships.[15] Furthermore, collaboration between multiple centers in multicenter studies strengthens the validity of results and encourages the sharing of resources and expertise.[16] The findings of this study highlight the need for an increased focus on multidisciplinary and prospective studies within the Annual National Congresses of the TAPS.

A notable observation was that 42% of the papers were published in local or international journals without an impact factor, in addition to the overall low publication rate. While it is generally acknowledged that basic science studies, aside from those in specialized fields, tend to be published in journals with higher impact factors than clinical studies, this trend was not reflected in the present study.[17] Despite the limited number of basic science publications, no statistically significant difference was observed between the impact factors of the journals publishing basic science research and those publishing clinical studies.

When examining the publication rates by year, the highest rate occurred in 2019 at 32.8%. A significant decline was observed in 2021 and 2022, which may be attributed to the cancellation of the 2020 congress due to the COVID-19 pandemic. The reduction in interactive communication during the pandemic may have contributed to this decline. Furthermore, it can be inferred that in-person congresses play a crucial role in fostering the exchange of new ideas, and the absence of such events in 2020 may have negatively impacted productivity.

The majority of papers presented at the congress were focused on the abdominal and thoracic pathologies. One of the major challenges faced during the planning of this study was the categorization of abstracts into distinct pediatric surgery subgroups. For instance, the abstract books categorized esophageal diseases under the thoracic and upper gastrointestinal tract sections. A similar pattern was also noted in the abstract books of the European Paediatric Surgeons' Association (EUPSA) Congress, one of the foremost conferences in pediatric surgery.[18,19] This indicates a need for a reevaluation of the subclassifications within pediatric surgery. To ensure consistency, the seventh edition of Coran's Pediatric Surgery textbook was used as the standard reference for classification.[6]

In this study, the search for published articles was limited to the PubMed and Google Scholar platforms. As a result, some publications may have been overlooked, representing the primary limitation of our research.

In conclusion, the publication rate of the papers presented at the Annual National Congresses of the TAPS was found to be 21%, which is considerably lower than the rates reported in comparable studies. Furthermore, the majority of these papers were published in journals with relatively low IF, suggesting a potential gap in the quality or scope of the research being disseminated. An additional concern is the limited presence of multicenter and prospective studies, which are crucial for generating more robust and generalizable findings. This study underscores the pressing need for increased efforts toward conducting national, multidisciplinary, and prospective studies that can elevate the overall quality of research and its impact on the scientific community. Enhancing collaboration across institutions and adopting a forward-looking research design may also help improve publication outcomes and raise the visibility of future studies.

Data Sharing Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Author Contributions: Study idea/concept, critical review: G.G., Ç.U.D.; Design and writing the article, references: G.G., Ç.U.D.; Data collection and/or processing/materials: A.P, G.G., A.İ.A.; Literature review: A.P., Ç.U.D.; Control/ supervision: Ç.U.D.

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