



## A Retrospective Analysis Of The Trends Of Publication Of A Pediatric Dentistry Journal Form India.

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**ABSTRACT:** Information about the nature of publications in the Journal of Indian Society of Pedodontics and Preventive Dentistry (JISPPD) is lacking. The aim of this study was to analyze the trends of publication in Journal of Indian Society of Pedodontics and Preventive Dentistry. Articles published in JISPPD in 5 volumes from January 2011 to December 2015 were analyzed for the number and type of articles published in each year, types of original articles and case reports, citations and citation frequency of articles and contributions of foreign authors. It was found in this study that JISPPD published 363 articles over the last 5 years. Out of 363 articles, 50.9% were original articles and 40.5% were case reports. Most of the original articles included observational (descriptive/analytical) studies (37.3%). Out of 363 articles published, the articles cited were 102 in number which were cited for 182 times. The highest number of citations for any one article was 9. The articles with 1 citation accounted for 60.8% of the total number of cited articles. Foreign authors contributed 24 articles during this period. The articles published in JISPPD cover the wide spectrum of the specialty with contributions from all over India as well as abroad.

**KEYWORDS:** publication, academic profile, citation frequency.

Received 29 Jun, 2018; Accepted 14 July, 2018 © The Author(S) 2018. Published with open access at [www.questjournals.org](http://www.questjournals.org)

### I. INTRODUCTION

Paediatric dentistry in India has grown immensely in recent years. From the humble beginnings in 1950 when Indian Society of Pedodontics and Preventive Dentistry (ISPPD) was formed, the profession has progressed rapidly. ISPPD is a national society specifically concerned with the improvement of oral health of children in India<sup>[1]</sup>. The society also aims to encourage research in the specialty of Pedodontics and Preventive Dentistry and to promote publications of scientific literature. With this in mind, JISPPD (Journal of Indian Society of Pedodontics and Preventive Dentistry) the official journal of the society was launched. It was added to Directory of Open Access Journals (DOAJ) on 8<sup>th</sup> October, 2004<sup>[2]</sup>. The journal is published quarterly in print form and is also available online.

Research work done by an individual or academic institutes is published as research/original articles in the popular journals. This is an important method of dissemination of knowledge so that scientific community becomes aware of the latest developments in scientific world<sup>[3]</sup>. The importance of publications is picking up in India. This is witnessed by increasing number of publications from India in most of the national and international journals. There are various tools to evaluate the academic profile of a journal. Some of the tools may qualitatively evaluate the journal impact and some may quantitatively measure the general profile of the journal articles<sup>[4]</sup>. The academic background of the journal, reputation of the authors, number and types of articles published, the citation rate and the number of times each article is cited are all essential indicators of the quality of scientific journals. Citation analysis of a given journal's papers and the journal impact factor (IF) can be used to evaluate the academic profile of the journal<sup>[5]</sup>.

Till date no assessment has been done about the nature of articles published in JISPPD. This study aims to assess the nature and characteristics of JISPPD articles. Through this the authors hope to be able to assess the

current status of research in the field of paediatric dentistry. This paper also hopes to sensitize all paediatric dentists to contribute their best to the specialty.

## **II. MATERIALS AND METHODS**

A total of 5 volumes (29,30,31,32,33) of last 5 years from January 2011 to December 2015 were analyzed. These volumes comprised of 20 issues and 1 supplementary issue. The data was derived from the website of the journal ([www.jisppd.com](http://www.jisppd.com)).

The articles published in these volumes of JISPPD were analyzed for the number of articles per issue in each year, types of articles (original article, case report, editorial, review article, letter to the editor). Obituary, retraction notice, erratum and tribute were excluded. Since original articles and case reports constitute major part of the journal, thus authors subdivided original articles into in vitro research, in vivo research, observational studies (descriptive/analytical) and questionnaire based surveys. Also, the case reports were subdivided into:

1. Tooth anomalies reported
2. Management related to Cleft Lip and Palate (CLP) patients
3. Oral manifestations or management in various systemic diseases
4. Oral or maxillofacial cysts, tumors, carcinomas or precancerous conditions.
5. Oral or maxillofacial trauma
6. Syndromes reported
7. Orthodontic management
8. Oral or maxillofacial diseases or anomalies
9. Others (example child abuse and neglect, biological restorations etc.)

Articles published in JISPPD in the last 5 years were analyzed for the number of citations per issue. Number of cited articles and number of times the articles were cited was analyzed for each year. Citation frequency of cited articles was calculated. Articles were also assessed for the contributions of foreign authors in the publications of JISPPD.

The data was obtained independently by each author and discrepancy if any was resolved by accessing the information jointly from the JISPPD website.

There were some limitations to the data process:

1. We analyzed only the country of first author and not of all the authors in an article.
  2. All the articles from JISPPD and their references were retrieved on 14<sup>th</sup> May, 2016.
- Descriptive statistics giving data in numbers and percentages were used.

## **III. RESULTS**

Over 5 years, JISPPD has published 20 issues and 1 supplementary issue. A total of 363 articles were published in these issues from January 2011 to December 2015. Maximum number of articles (87) were published in the year 2011 as shown in Table 1 and Fig. 1. The number of articles published during these 5 years have remained almost the same. The authors have ensured continuity of every section of the journal by including at least 1 original article, review, case report and editorial. 185 out of 363 articles were original articles (50.9%). Maximum original articles (46) were published in the year 2015. Case reports formed an important part of JISPPD. 40.5% of the articles published were case reports with the year 2011 publishing maximum number of case reports (47). These 5 volumes of JISPPD published 20 editorials (1 in each issue), 9 review articles and 2 letters to the editor as shown in Table 2 and Fig. 2.

Table 3 shows the type of original articles analyzed. Out of 185, maximum articles included observational studies (descriptive/analytical) which accounted for 37.3% of the total original articles. Articles containing in vitro and in vivo research were almost similar in number. 52 (28.1%) in vitro and 51(27.5%) in vivo research articles were published. 5.4% of the original articles included questionnaire based surveys. 1.6% of articles were included in others category which consisted of 1ex-vivo research, 1case discussion and 1 article which included both in vitro and in vivo research.

Case reports were analyzed according to the article content shown in Table 4. 16.3% of the case reports reported syndromes followed by oral or maxillofacial cysts, tumors, carcinomas or precancerous conditions (14.9%) and tooth anomalies (13.6%). 10.9% of the case reports were related to either oral manifestations or management in systemic diseases. Oral or maxillofacial trauma constituted 8.8% and oral or maxillofacial diseases or anomalies constituted 7.5% of case reports. Orthodontic management was done in 6.1% and management of CLP patients was done in 3.4% of case reports.

The articles were also assessed according to the number of citations per issue in each year. This is shown in Table 5. Out of 363 published articles, 102 articles were cited 182 times. Issues of JISPPD published in 2011 had maximum number of cited articles (54) which were cited 120 times as shown in Table 6. The highest number of citations for any one article was 9. Table 7 shows that the articles with 1 citation accounted

for 60.8% of the total number of cited articles, those with 2 citations accounted for 19.5% of all cited articles. 10.8% of the cited articles were cited for more than 3 times (11/102).

Foreign author's contributions in the publications of JISPPD was also assessed. Table 8 shows that a total of 24 articles were contributed by foreign authors which included 13 original articles, 9 case reports, 1 review article and 1 letter to the editor. Maximum contributions were made by the authors from Brazil with 11 articles (6 original articles and 5 case reports) followed by 3 articles from Saudi Arabia (2 original articles and 1 review article). Iran has contributed 2 articles followed by 1 article each from Egypt, China, Syria, Italy, Turkey, Malaysia, Hong Kong and Germany.

#### IV. DISCUSSION

In this study the pattern of publication of JISPPD of the last 5 years was retrospectively analyzed. The total number of published articles have remained almost the same from 2011 to 2015 except in 2013 with least number of publications. Peak contribution seen in 2011 was due to the supplementary issue published in this year. Most contributions have come from prestigious academic institutions. In relative terms, private clinicians have not contributed enough. Because of the presence of contributor's name in citation indices like Pub Med and Google Scholar, it implies that contributors of JISPPD have been actively writing for good international journals as well.

Research work done by individuals and institutions is published as original article in a journal. Case reports also constitute the early steps towards research activities. It was observed that about 90% of the publications were original articles and case reports. This indicates that the specialty is conducting more number of research projects and also has lot of interesting case reports to share.

It was observed that observational studies (descriptive/analytical) constituted the main area of research work closely followed by in vitro and in vivo studies. This implies that the journal has been able to attract all types of research work. In vivo studies included clinical trials and animal studies. Two articles of animal studies were published during this period. At times it was difficult to classify a particular article (especially between in vivo and observational studies). The ambiguity in classification was resolved by consensus among the authors.

Analysis of case reports has shown that the journal has succeeded in covering the diverse aspects of paediatric dentistry. This has proved that paediatric dentistry is no longer limited to extractions and restorations in children. Over the recent years it has progressed in leaps and bounds and the widespread scope of Pedodontics is well reflected in the articles published in JISPPD. The journal includes essence of all branches like diagnosis, oral surgery, rehabilitation, endodontics, orthodontics, preventive dentistry and newer avenues like lasers. Case reports published also document increased concern of paediatric dentists in providing complete oral health care to children with special health care needs.

One of the most widely used methods of bibliometrics is citation analysis. It is the examination of the frequency and patterns of citations in articles and books. However, there is skewed distribution of citations in most fields. The well known 80/20 rule applies in that 20% articles may account for 80% of the citations<sup>[6]</sup>. Same is seen in JISPPD also. However, since most journals experience this skewness, it should not significantly affect journal rankings. The academic quality of a journal is positively correlated with the number of cited articles in the journal. The analysis of articles published from 2011 to 2015 has shown that 28.1% of all published articles were cited. This implies that JISPPD has an influential academic profile.

JISPPD has also attracted articles from foreign authors. While the bulk of articles have been of Indian origin, few studies have been reported from foreign countries. This must be because the study has assessed the country of only the first author and not of all the authors in a particular article.

#### V. CONCLUSION

JISPPD has published a large number of articles over the past 5 years (from 2011 to 2015). Majority of the publications include original articles and case reports. The articles cover the wide spectrum of paediatric dentistry including wide range of topics. This shows that the scope of pediatric dentistry has progressed immensely over the recent years.

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**Tables**

**Table 1. Number of articles published in JISPPD from 2011 to 2015**

Year	Issue 1	Issue 2	Issue 3	Issue 4	Suppl	Total
2011	17	21	20	13	16	87
2012	16	19	20	17	-	72
2013	12	14	18	17	-	61
2014	18	21	15	18	-	72
2015	17	18	17	19	-	71

**Table 2. Types of articles published in JISPPD from 2011 to 2015**

Type of article	2011	2012	2013	2014	2015	Total	
						N	%age
Original article	32	35	36	36	46	185	50.9
Case report	47	29	20	32	19	147	40.5
Editorial	4	4	4	4	4	20	5.5
Review article	3	3	1	-	2	9	2.5
Letter to the editor	1	1	-	-	-	2	0.5
Total	87	72	61	72	71	363	100.0

**Table 3: Types of original articles published from 2011 to 2015**

Type of original article	2011	2012	2013	2014	2015	Total	
						n	%
In vitro research	9	12	7	9	15	52	28.1
In vivo research	11	11	8	9	12	51	27.5
Observational studies (Descriptive/ Analytical)	10	12	17	15	15	69	37.3
Questionnaire based surveys	2	0	2	3	3	10	5.4
Others	0	0	2	0	1	3	1.6
Total	32	35	36	36	46	185	100%

**Table 4: Content wise analysis of case reports published from 2011 to 2015**

Content of Case report	2011	2012	2013	2014	2015	Total	
						n	%
Tooth anomalies reported	10	5	0	3	2	20	13.6
Management of CLP patients	3	1	0	1	0	5	3.4
Oral manifestations or dental management in systemic diseases	8	2	2	3	1	16	10.9
Oral or maxillofacial cysts, tumors, carcinoma or precancerous conditions	6	4	4	5	3	22	14.9
Oral or maxillofacial trauma	3	1	4	3	2	13	8.8
Syndromes reported	7	6	2	5	4	24	16.3
Orthodontic management	2	3	2	0	2	9	6.1
Oral or maxillofacial diseases	2	3	0	3	3	11	7.5
Others	6	4	6	9	2	27	18.4
<b>Total</b>	47	29	20	32	19	147	100.0

**Table 5: Number of citations of articles per issue in each year from 2011 to 2015**

Year	Issue 1	Issue 2	Issue 3	Issue 4	Suppl
2011	29	40	21	15	15
2012	14	16	11	7	-
2013	3	5	2	2	-
2014	1	1	0	0	-
2015	0	0	0	0	-

**Table 6: Number of cited times of articles in each year from 2011 to 2015**

Year	Total no. of articles published	No. of articles cited	No. of cited times
2011	87	54	120
2012	72	36	48
2013	61	10	12
2014	72	2	2
2015	71	0	0
Total	363	102	182

**Table 7: Citation frequency of articles published in JISPPD from 2011 to 2015**

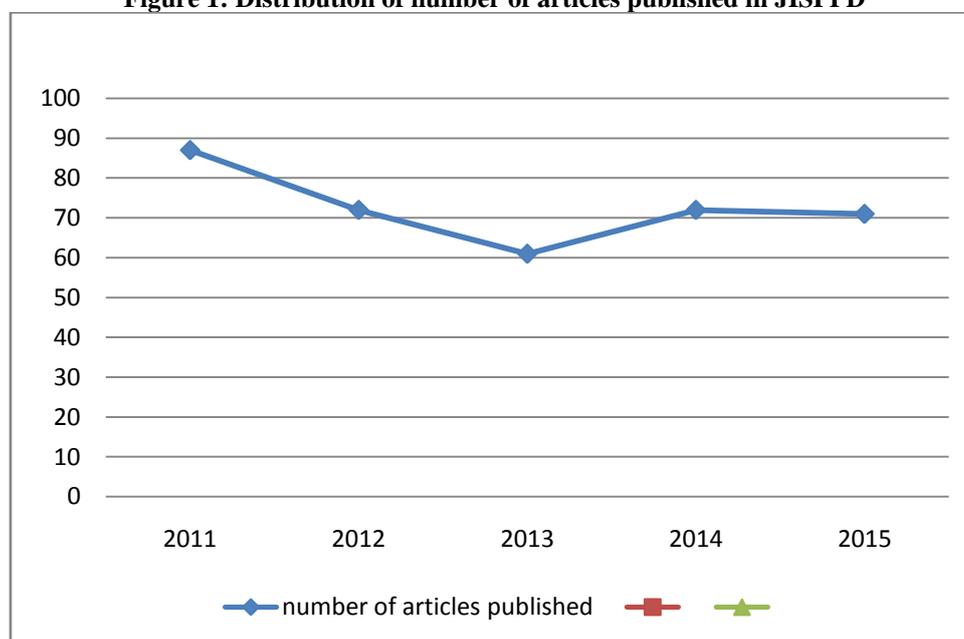
Cited times	No. of cited articles		No. of cited times	
	n	%age	N	%age
1	66	60.8	66	36.26
2	18	19.56	36	19.78
3	7	7.6	21	11.53
4	5	5.4	20	10.98
5	2	2.17	10	5.49
6	1	1.08	6	3.29
7	2	2.17	14	7.69
8	0	0	0	0
9	1	1.08	9	4.94
Total	102	100.00	182	100.00

**Table 8: Contributions of foreign authors in the publications of JISPPD from 2011 to 2015**

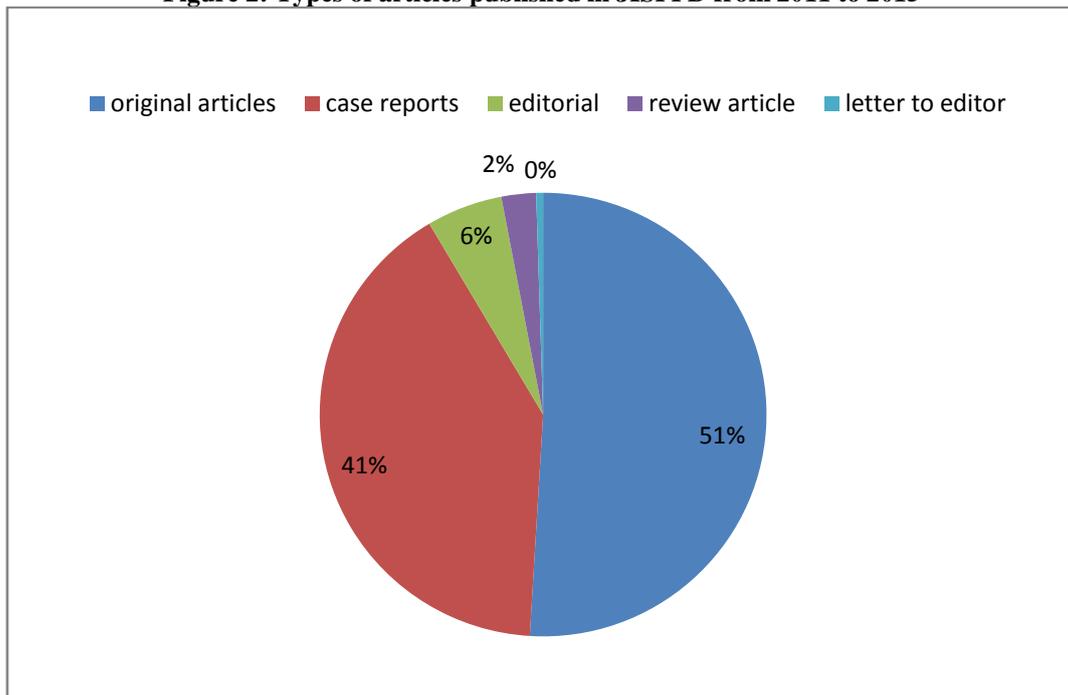
Type of article	Number of articles Total = 24	First author's country
Original articles	13	Brazil (6) Saudi Arabia (2) Iran (2) Egypt (1) China (1) Syria (1)
Case reports	9	Brazil (5) Italy (1) Turkey (1) Malaysia (1) Hong Kong (1)
Review article	1	Saudi Arabia
Letter to the editor	1	Germany

**Graphs**

**Figure 1: Distribution of number of articles published in JISPPD**



**Figure 2: Types of articles published in JISPPD from 2011 to 2015**



Dr. Charan Kamal Kaur Dharmani "A Retrospective Analysis Of The Trends Of Publication Of A Pediatric Dentistry Journal Form India.." *Quest Journals Journal of Medical and Dental Science Research* 5.4 (2018): 07-12.