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Research on Plagiarism in India during 2002-2016 : A Bibliometric Analysis

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ABSTRACT

The issues of plagiarism have been mushrooming more rapidly around the globe. India is also not spared from plagiarism and related issues. Various researchers and academicians have raised their concern on rapidly growing cases of plagiarism. In this study, an analysis was made to identify the average growth of publications written on plagiarism by Indian authors, the degree of author collaboration, most impactful sources for publishing on plagiarism. The data for the period of 2002 – 2016 were extracted from Scopus by executing a query on 'Plagiarism' term. In total 385 publications were found and computed. Average citations per publications of 4.01 for the period, 2007-11 was found high as compared to two other block periods of the study whereas block period 2002-06 was witnessed 49.53 per cent annual growth rate. The Single authored publications prevailed more (34.55 per cent) which interestingly also achieved 50.38 per cent of the cited rate. It was also observed that the degree of multi-authored collaboration has been improving with every passing year.

Keywords: Authorship pattern; Degree of author collaboration; Citation analysis; Source title Impact ratio; Bibliometric study

1. INTRODUCTION

Plagiarism is one of the most critical aspects of academic and scientific research. Historically, the existence of plagiarism is found since thousands of years. Wager[1] gone back to c.AD80 and reported that a Roman poet Martial claimed that his work was recited by other as his own. Fox[2] also reported that plagiarism related issues were traced back about two thousand years ago. The cases of plagiarism were increased with the use of printing technology and other means of expressions. The terms plagiarius or plagiator were used as a kidnapper in English Criminal law but plagiarius word also used for literary thief in Roman law for the people who were stealing literary work of others claiming own's[3]. Cunha[4] written an excellent state of dubious definitions available around with a critical statement, that 'if you steal from one author, it is plagiarism; if you steal from many, it is research'. His statement advocates use of proper citations while quoting or referring others' works. With the innovations in Information and communication technology, the issues of plagiarism were started mushrooming rapidly across the world. Similarly, various plagiarism cases have been found in Indian institutes in the recent past. Many researchers have been conducted studies on plagiarism, the forms of plagiarism and how it can be deterred.

Bibliometric is the only available technique to measure research output of an author, institute, nation or in a specific subject area. In this study, an effort is made here to measure the Indian research output on 'plagiarism' by using bibliometrics. The analyses are also made to know authorship pattern, most prolific authors, most favoured journals (source), and an average annual growth rate of publications.

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2. LITERATURE REVIEW

In the last couple of decades, the world had seen quite a moderate growth in plagiarism related studies. Many of the studies have quoted various reasons which encourage plagiarism in academics and research and how it can be dealt. Qiu[5] through a study published in Nature Journal revealed that Universities in China offered various benefits including cash prize etc for publishing in high profile journals which put pressure on the research community which encouraged academic misconduct. He further quoted that in an unpublished survey report of about 6000 researchers of major six universities of China, one-third of the surveyed researchers admitted to plagiarism. He concluded with to impose a strict legal action on doing such academic misconducts. Devlin[6] revealed that countless cases of plagiarism were being detected among Australian Higher Education every year. The universities in Australia started focusing on implementing plagiarism policy to deter such cases. Heitman and Litewka[7] reported that students coming from Asia, especially from China, India, South Korea, Japan etc were making about half of the International trainees of United States. They tried to put forth that trainees from these countries encourage plagiarism in writings. India, Latin America, Africa and the Middle East regions are lagging behind showing their concern about plagiarism than the others regions. Neelakantan[8] stated that a few years back, the Indian government was worried about India's low research output. The Indian higher education system revised rules for promotions of teachers, which mainly

focused on the number of publications. This decision resulting in publications by any means that lead to academic misconduct or plagiarism in many cases. She further shared that editor of *Current Science* had confirmed about 80 plagiarism cases among publications submitted to the journal during 2006-2008. Similarly, Aggarwal[9], *et al.* stated that measuring academic achievement is difficult in the scenario when promotions are assessed on basis of different job descriptions of individuals. The Number of research publications is an important component of career advancement and promotion in India which encouraging plagiarism in absence of proper policy[10-11].

Garcia-Romero & Estrada-Lorenzo[12] carried out an interesting study on Déjà vu database to analyse plagiarism and self-plagiarism. The Déjà vu database record the entries of papers published earlier (Original Papers) and later published papers (plagiarised). The later published papers can be reflected as the duplicate of earlier papers. They found that the authors who write papers after the earlier ones were not skillful as they were unable to publish in reputed journals. Kakol[13], *et al.* highlighted the issue of self-plagiarism by conducting a bibliometric analysis. They searched a string of 'auto OR self AND plagiarism' in title, abstracts and keywords fields. They found 313 records of information sources written in the English language during the period of 1946-2015. The most productive country was United States of America (84) followed by United Kingdom (30) and India (17). They also revealed that merely 19 records were found during 1946 – 2002 and only 27 records during 2003-2006 whereas an exponential growth was seen in the third block which is 2007-2014 in which 145 records were found. After 2012 a slight decrease was observed in self-plagiarism related records.

Velmurugan & Radhakrishnan[14] conducted a bibliometric study on articles indexed by Web of Science for the period of 2010-2014. They executed a query on 'Plagiarism' term and retrieved 795 records. They found that 182 (23 %) papers were published in the year 2013. Hong Kong University was ranked as the most active university by publishing 11 (1.4 %) of the total publications on plagiarism. With respect to countries, United States of America had published 200 (25.3 %) of the total publications whereas India achieved 9th position by publishing 16 (2.07 %) share of publications during the period of study. *Current Science* is the most preferred journal for publishing plagiarism related articles for Indian authors. Babu[15], *et al.* conducted a study of medical undergraduate students in private medical schools of Pondicherry, India. They found that almost all surveyed students were involved in at least one act of academic dishonesty. Proxy attendance, technical help and copying during exams are some of the common act of academic dishonesty. They concluded with the suggestion of establishing centers for academic integrity in India. There were also other studies of medical institutions of India which highlighted academic misconduct a critical problem which needs to be deterred soon[16-20]. Johnson[21], *et al.* raised various questions on the use of bibliometrics techniques especially when online journals are the key access points for producer and user of information. They believed that the data available online can easily be tampered or aggravated with various means. However, it is also evident through various studies that bibliometrics is the only technique available which helps in measuring research output with respect to publications produced and citation received.

Boisvert & Irwin[22] highlighted that after observing a steep rise in plagiarism cases among the articles submitted for publication in Association of Computing Machinery (ACM), the publication board introduced the plagiarism policy for the authors. Martin[23] stated that universities in Australia were enforcing to use plagiarism detection service and recommending the use of Turnitin for checking student's essays. The author indicated that the plagiarism detection tools can only check for word-for-word writings from the documents stored in its repository. These cannot check for the ideas taken from others, writings copied from the source which is not in the database and written in other (other than English) languages. But these detection tools may help in detecting students who intend to cheat by using readily available text. Once students got to know the presence of such tool for checking their written pieces, they may deter from plagiarism.

Sutherland-Smith[24] explored the legal and academic aspect of plagiarism. He stated that teachers need to put in collective efforts for developing quality academic writing programmes whereas plagiarism related issues are mostly being discussed individually, what should or should not be included in the plagiarism also need to clarify universally. Bird[25] argued in favour of 'self-plagairism' when one author uses his/her own ideas in different works. Since the word plagiarism defined as an act of presenting ideas or words of others as one's own. However, he stated that 'self-plagiarism' become a serious issue when one author publish his/her own same work repeatedly which generally called 'self plagiarism' of dual publications. Anderson and Steneck[26] stated that plagiarism is a grave matter and researchers should take proper precautions to acknowledge all works they referred. They also highlighted that in US Federal Government defined plagiarism as a type of misconduct along with fabrication and falsification and this definition is applicable to all research institutions. Yadav[11], *et al.* suggested having strict laws to control the plagiarism and advised to various councils involved in the higher education system to play an important role in deterring plagiarism. India should have a regulatory body like the Committee on Publication Ethics, UK and ORI, USA so that stricter action can be taken against who plagiarized.

3. METHODOLOGY

The study aims to evaluate the research publications in the area of plagiarism appeared in international citation database. The study confined to the publications published under Indian affiliation. It reflected that study evaluated only those publications which have at least one author from India. The data were extracted from Scopus database which is one of the largest abstract and citation databases of peer-reviewed literature. The data were extracted by executing following query:

(ALL(plagiarism) AND (LIMIT-TO (AFFILCOUNTRY, "India")))

The data for 15 years, i.e. from 2002 to 2016, were taken into consideration and evaluation. It was also observed that

in the year 2002 no publication was found in the extracted data. In total 385 entries were extracted which were computed and analysed by using bibliometric techniques. The analysis was done on keeping three block periods (2002-06, 2007-11 and 2012-16) covering five years in each block for easy representation of data.

4. DATA ANALYSIS

A total 385 records of Indian authors on 'Plagiarism' were indexed by Scopus. Throughout the study, all these records were referred as publications. The document type distribution of publications accommodated 36.10 per cent (139) conference papers, 25.45 per cent (98) research articles, 14.03 per cent (54) letters and remaining 24.42 per cent (94) were reviews, book chapters, and short survey etc. The year-wise detail of total publications (TP) and total citations (TC) are given in the Table 1, which further analysed in three block periods enveloping five years in each block.

Table 1. Publications and citations

Year	TP	TC
2002	0	0
2003	1	0
2004	3	7
2005	5	10
2006	5	14
2007	6	62
2008	19	30
2009	10	146
2010	17	51
2011	32	48
2012	38	64
2013	36	90
2014	57	76
2015	64	60
2016	92	42
Total	385	700

4.1 Citations per Publication and Cited Rate

As highlighted in Table 2, all publications (385) have received 700 citations with an average of 1.82 citations per publication. During the block period of 2002-06, the ACPP was 2.21 which got improved to 4.01 in the next block (2007-11). The last block period, i.e. 2012-16 has attained 1.16 ACPP which is expected to improve in next couple of years as publications start attracting citations after one or two years.

Table 2. Citations per publications and cited rate

Block period	TP	TC	ACPP	CR (%)
2002-06	14	31	2.21	50.00
2007-11	84	337	4.01	54.76
2012-16	287	332	1.16	42.16
2002-16	385	700	1.82	45.19

The citation analysis helps us in identifying the number of articles being cited from the total number of articles written by an Institute, country or in a subject area during one year or any stipulated duration. The Table 1 also indicates that the total cited rate (CR) of publications written by Indian authors during 2002-2016 was 45.19 per cent. That means overall about 55 per cent of the publications on plagiarism were not being cited. Whereas, it is also observed that the last block period (2012-16) has only less than 50 per cent cited rate among three block periods. That is because the new publications started attracting citations after one or two years. Therefore, the publications published in 2015 and 2016 may yet to get cited.

4.2 Annual Growth Rate

On basis of plagiarism related publications, productivity of Indian authors, an average annual growth rate (GR) were also assessed. The GR was calculated by the following formula:

$$\text{Annual growth rate (GR)} = \left(\frac{\text{Present publications}}{\text{Past publications}}\right)^{\left(\frac{1}{\text{Number of years}}\right)} - 1$$

(e.g., in the year 2007 Indian authors published 6 publications on plagiarism and 32 in 2011. On basis of above formula, the 6 is the 'Past Publications', 32 is 'Present Publications' and 5 is 'Number of Years'.)

As stated in Table 1, Indian authors had published 385 scholarly publications during the period from 2002 to 2016. The Indian authors have published 14 articles, during first block covering period from 2002 to 2006, with the annual growth rate of 49.53 per cent. In the second block period (2007-11) the annual growth rate was dipped to 39.77 per cent and in third block period, i.e. 2012-16 the annual growth rate further gone down to 19.34 per cent as shown in Fig. 1.

The overall annual growth rate of 38.12 per cent was computed while calculating it for 2002 to 2016 period. The low annual growth during 2012-16 is depicting stagnated research efforts in the area of plagiarism in India. Although, University Grants Commission has come up with a draft plagiarism policy for academic higher institutions in the September month of 2017. It is expected to be implemented soon and a different set of research may expect to take place afterward.

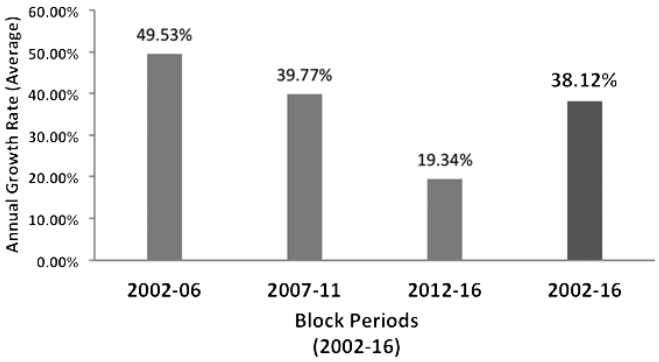

Figure 1. Annual growth rate of publications.

4.3 Authorship Pattern

The authorship pattern of plagiarism related publication written by Indian authors was also analysed. As highlighted in Fig. 2, the 133 publications (34.55 %) were written in single authorship. These single-authored publications were achieved 50.38 cited rate, that means about 50 per cent of the publications written in Single authorship were cited by one or more publications, whereas multi-authored publications (2 or more than two authors) got 42.46 cited rate. It shows the dominance of single authorship pattern of plagiarism related publications. The publications of two authors were shared 31.95 per cent (123) of total publications which attained 40.65 cited rate. The publications written by three authors were 61 which contributed 15.84 per cent of the total publications with the cited rate of 44.26 per cent similarly, four authors' publications were 10.39 per cent (40) with the cited rate of 45.00, five authors publications contributed to 3.90 per cent (15) share with 46.67 cited rate and six and more than six authors put in 3.38 per cent (13) share of total publications which got 38.46 cited rate.

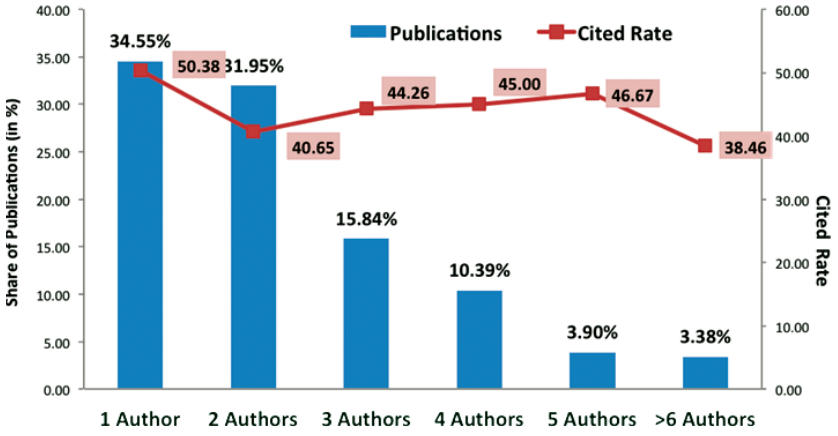

Table 2. Authorship Pattern of publications during the period 2002-2016.

The analysis disclosed that single authorship pattern is more prevalent than two, three or more numbers of authors in plagiarism related publications which also has a good cited rate (50.38). From the analysis, it may also be derived that researchers working in different subject areas like to work independently to share their opinion on different issues of plagiarism.

4.4 The Degree of Author Collaboration

The degree of authorship collaboration was also determined by applying a mathematical formula given by Subramanyam[27]. The following formula was considered to express the degree of author collaboration in this study.

$$\text{Degree of author collaboration (C)} = \frac{Nm}{Nm + Ns}$$

In this mathematical formula, C reflects the degree of author collaboration, *Nm* is the number of publications under multiple-authorship and *Ns* represents the number of publications in single-authorship. On basis of this expression, the block-wise degree of author collaboration was presented in Table 3.

Table 3. Degree of author collaboration

Block period	*Nm+Ns*	*Ns*	*Nm*	C
2002-06	14	11	3	0.21
2007-11	84	42	42	0.50
2012-16	287	80	207	0.72
Overall	385	133	252	0.65 (0.48 Mean)

It was found that degree of collaboration of authors was merely 0.21 (i.e., 21 %) during first block period (2002-06) of the study. In the second block period (2007-11) the degree of author collaboration was improved to 0.50 (50 %) and it improved further by 0.72 (72 %) in the third block period. The overall degree of author collaboration was also calculated to 0.65 with the mean value of 0.48. The degree of author collaboration during 2002-06 was low which was improved in both the next block periods.

4.5 Prolific Authors

As highlighted in Table 4, the analysis was also made to find out the leading Indian authors with more number of publications on plagiarism. Dr Deepa Gupta of Amrita University, Bangalore found to be the most prolific author with respect to the number of publications (11) followed by Dr K. Vani of the same university with 9 publications. Dr P. Chaddah of UGC-DAE Consortium of Scientific Research has contributed 7 publications whereas N. Mukunda, Editor Indian Academy of Sciences has contributed 5 'Notes' on Plagiarism. The similar numbers of publications were written by Dr S.V. Shinde and Dr V. Singh. The publications of Dr V. Singh have achieved 17 citations with 3.40 Average Citation per Publications.

4.5 Source Title Impact Ratio

The 385 publications were appeared (published) in 112 sources (Source Titles). An exercise was made to identify the high impact sources in which Indian authors liked to publish on plagiarism. The top 10 sources were identified in which Indian authors had written more numbers of publications. The cited rate (CR) and average citation per publication (ACPP) were also calculated so that impact of source document can be determined through the citations received by publications published in that source. The following metrics is used to know the source title impact ratio (STIR).

$$\text{Source Title Impact Ratio (STIR)} = \frac{TP + CR + ACPP}{100}$$

where TP is total publications (To offer weight-age on accommodating number of publications), CR is cited rate (to accommodate quality impact of the source with respect to publication cited) and ACPP is average citation per publication (to add quality of publications through received citations)

The Table 5 highlights STIR of 10 most prolific sources accommodated plagiarism related publications. Though, the

Table 4. Top six prolific authors

Author	Affiliation	Subject area	TP	TC	ACPP
Gupta, D.	Amrita University (Amrita Vishwa Vidyapeetham)	Mathematics	11	19	1.73
Vani, K.	Amrita University (Amrita Vishwa Vidyapeetham)	Computer Science	9	19	2.11
Chaddah, P.	UGC–DAE Consortium for Scientific Research	Finance/Admin.	7	15	2.14
Mukunda, N.	Indian Academy of Sciences	Editor	5	0	0.00
Shinde, S.V.	BVU College of Engineering	Chemical Science	5	1	0.20
Singh, V.	SMS Medical College Hospital	Medicine	5	17	3.40

Table 5. Source title impact ratio (Top 10 Sources by number of publications)

Source	TP	TC	CR	ACPP	STIR	Rank
Current Science (India)#	25	34	52.00	1.36	0.78	2
CEUR Workshop Proceedings (Germany)	17	8	17.65	0.47	0.35	6
International Journal of Applied Engineering Research (India)#	9	3	11.11	0.33	0.20	10
Lecture Notes in Computer Science (Germany)*	9	3	22.22	0.33	0.32	7
Lung India (India)#	8	29	87.50	3.63	0.99	1
Economic and Political Weekly (India)*#	7	3	42.86	0.43	0.50	4
Communications in Computer and Information Science (Germany)	6	1	16.67	0.17	0.23	9
Procedia Computer Science (Netherland)#	6	4	33.33	0.67	0.40	5
ACM International Conference Proceeding Series (US)	5	1	20.00	0.20	0.25	8
Advances in Intelligent Systems and Computing (Germany)	5	4	60.00	0.80	0.66	3

*(Including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).
Accessible under open access mode.
*# Partially open access.

Current Science published the highest number of publications (25) on plagiarism but managed the Second rank with 0.78 STIR points. Another Indian origin journal, *Lung India* achieved top spot by publishing 8 publications only. However, the CR and ACPP of publications published in this journal were high as compared to other sources and on basis of above formula, *Lung India* got 0.99 STIR points. The Economic and Political Weekly published from India placed at Fourth rank with 0.50 STIR points. Another Indian journal *International Journal of Applied Engineering Research* placed at Tenth STIR rank with 0.20 points. Remaining source titles were international publications published by other countries. Apart from India, the four source titles of Germany have been also included in the top ten most favoured sources for publishing plagiarism related publications. All Indian titles are available under open access mode which also includes partial open access to articles published in *Economic and Political Weekly*.

5. CONCLUSIONS

The study assessed the publications written by Indian authors on plagiarism during the period of 2002 to 2016. In the initial period of the study, the single authorship pattern was more prevalent which has been changing rapidly in every passing year as the degree of authors collaboration (multi-authored publications) has increased in last few years. The single-authored publications have also attained the highest cited rate which also indicated that single-authored publications attracted more citations than others. It is also observed that Indian authors have been writing more frequently in sources from India and which are accessible freely. It indicates that most of the Indian authors are avoiding publishing their research output in the international journals. Since good International journals accept high-quality research papers and also take a good amount of time to publish them. Indian authors need to do some serious research on plagiarism. However, many academicians, researchers and policy-makers have suggested establishing an active and strict regulatory or policy on plagiarism at the national level. Consequently, University Grants Commission (India) has come up with a draft of the national level policy for deterring plagiarism. This drafted policy includes different types of penalties if anyone found guilty. The draft policy also suggested to setting up Plagiarism Disciplinary Authority (PDA) and Academic Misconduct Panel (AMP) in Indian universities and colleges. It has been expected that a different kind of research would take place on the introduction of this plagiarism policy in India.

REFERENCES

1. Wager, E. Defining and responding to plagiarism. *Learned Publishing*, 2014, **27**(1), 33-42. doi: 10.1087/20140105
2. Fox, H. G. Evidence of plagiarism in the law of copyright. *University Toronto Law J.*, 1946, **6**(2), 414-460. doi: 10.2307/824106

3. Goudy, H. Plagiarism-A fine art. *Juridical Review*, 1908, **20**, 302.
4. Cunha, F. Gastrostomy: Its inception and evolution. *American J. Surgery*, 1946, 72(4), 610-634. doi: 10.1016/0002-9610(46)90402-3
5. Qiu, J. Publish or perish in China. *Nature*, 2010, **467**, 142-143. doi: 10.1038/463142a
6. Devlin, M. Policy, preparation, and prevention: Proactive minimization of student plagiarism. *J. Higher Edu. Policy Manag.*, 2006, **28**(1), 45-58. doi: 10.1080/13600800500283791
7. Heitman, E. & Litewka, S. International perspectives on plagiarism and considerations for teaching international trainees. *Urologic Oncology: Seminars Original Investigations*, 2011, **29**(1), 104-108. doi: 10.1016/j.urolonc.2010.09.014
8. Neelakantan, S. In India, plagiarism is on the rise – publish, perish, or pitfer?. *Global Post*. 2009. https://www.pri.org/stories/2009-10-18/india-plagiarism-rise (Accessed on 17 October 2017).
9. Aggarwal, R.; Gogtay, N.; Kumar, R. & Sahni, P. The revised guidelines of the Medical Council of India for academic promotions: Need for a rethink. *Indian J. Gastroenterol*, 2016, **35**(1), 3-6. doi: 10.1007/s12664-015-0617-9
10. Juyal, D.; Thawani, V. & Thaledi, S. Plagiarism: An egregious form of misconduct. *North Am. J. Med. Sci.*, 2015, **7**(2), 77-80. doi: 10.4103/1947-2714.152084
11. Yadav, S.; Rawal, G. & Baxi, M. Plagiarism-A serious scientific misconduct. *Int. J. Health Sci. Res.*, 2016, **6**(2), 364-366.
12. García-Romero, A. & Estrada-Lorenzo, J. M. A bibliometric analysis of plagiarism and self-plagiarism through Déjà vu. *Scientometrics*, 2014, **101**(1), 381-396. doi: 10.1007/s11192-014-1387-3
13. Kokol, P.; Zavrsnik, D. & Vosner, H. B. Creating a self-plagiarism research topic typology through bibliometric visualisation. *J. Academic Ethics*, 2016, **14**(3), 221-230. doi: 10.1007/s10805-016-9258-6
14. Velmurugan, C. & Radhakrishnan, N. Literature output of plagiarism: a Scientometric approach through Web of Science. *In* Combating Plagiarism: a new role for Librarian, edited by M. Patra & S. K. Jena, SK Book Agency, New Delhi, 2015, 78-88.
15. Babu, T.A.; Joseph, N.M. & Sharmila, V. Academic dishonesty among undergraduates from private medical schools in India: are we on the right track?. *Medical Teacher*, 2011, **33**(9), 759-761. doi: 10.3109/0142159X.2011.576717
16. Gitanjali, B. Academic dishonesty in Indian medical colleges. *J. Postgraduate Med.*, 2004, **50**(4), 281-284.
17. Sharma, B.B. & Singh, V. Ethics in writing: Learning to stay away from plagiarism and scientific misconduct. *Lung India: Official Organ Indian Chest Society*, 2011, **28**(2), 148-150. doi: 10.4103/0970-2113.80337
18. Monica, M.; Ankola, A.V.; Ashokkumar B. & Hebbal, I. Attitude and tendency of cheating behaviours amongst undergraduate students in a dental institution of India. *European J. Dental Edu.*, 2004, **14**(2), 79-83. doi: 10.1111/j.1600-0579.2009.00592.x
19. Singh, H.P. & Guram, N. Knowledge and attitude of dental professionals of North India toward plagiarism. *North Am. J. Med. Sci.*, 2014, **6**(1), 6-11. doi: 10.4103/1947-2714.125854
20. Sabir, H.; Kumbhare, S.; Parate, A.; Kumar, R. & Das, S. Scientific misconduct: A perspective from India. *Med., Health Care Philosophy*, 2015, **18**(2), 177-184. doi: 10.1007/s11019-014-9603-8
21. Johnson, M.H.; Cohen, J. & Grudzinskas, G. The uses and abuses of bibliometrics. *Reproductive Biomedicine Online*, 2012, **24**(5), 485-486. doi: 10.1016/j.rbmo.2012.03.007
22. Boisvert, R.F. & Irwin, M.J. Plagiarism on the rise. *Communications ACM*, 2006, **49**(6), 23-24. doi: 10.1145/1132469.1132487
23. Martin, B. Plagiarism: Policy against cheating or policy for learning?. Nexus (Newsletter of the Australian Sociological Association), 2004, 16(2), 15-16.
24. Sutherland-Smith, W. Pandora's box: Academic perceptions of student plagiarism in writing. *J. English Academic Purposes*, 2005, **4**(1), 83-95. doi: 10.1016/j.jeap.2004.07.007
25. Bird, S. J. Self-plagiarism and dual and redundant publications: what is the problem?. *Sci. Eng. Ethics*, 2002, **8**(4), 543-544. doi: 10.1007/s11948-002-0007-4
26. Anderson, M.S. & Steneck, N. H. The problem of plagiarism. *Urologic Oncology: Seminars Original Investigations*, 2011, **29**(1), 90-94. doi: 10.1016/j.urolonc.2010.09.013
27. Subramanyam, K. Bibliometric studies of research collaboration: a review. *J. Info. Sci.*, 1983, **6**(1), 33-38. doi: 10.1177/016555158300600105

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His contribution in the current study is in formation of idea, collection and synthesis of related data, analysis and writing of the whole manuscript.