

Knowledge on Ethical Authorship: A Comparative Study Between Medical and Pharmacy Faculty

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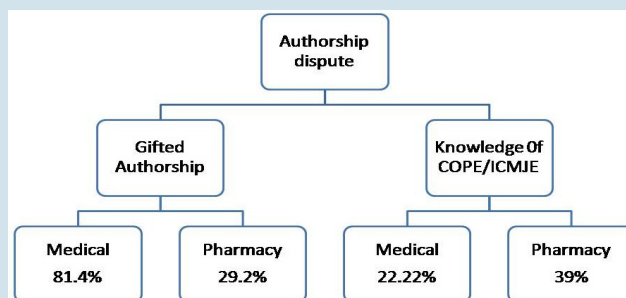
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ABSTRACT

Aim: The study was aimed to assess the knowledge on understanding ethical authorship of research publications among the medical and pharmacy faculty members of India. **Materials and Methods:** We have selected 54 numbers of medical faculty members and 41 numbers of pharmacy faculty members from different parts of India to assess their understanding and knowledge on concept in authorship issues for ethical publication by questionnaire and telephone interview. **Results:** It showed a significant higher number of publications ($t=3.765$, $p<0.001$) including first authorship ($t=15.34$, $p<0.001$) among pharmacy faculty members as compared to medical faculty members. 74.07% of medical and 68.29% of pharmacy faculty members confessed that they did not have any discussion on authorship issues at anytime. 88.88% of medical and 36.5% of pharmacy faculty members also mentioned that their Professors and Head of the departments were awarded 'gifted authorship'. 81.4% of medical and 29.26% of pharmacy faculty members also said that their seniors pressurized them to include their names in their manuscripts. **Conclusions:** Indicate a clear unethical practice on authorship issues among medical faculty members of India. Although pharmacy faculty members are better in practicing ethical authorship as compared to their medical counterparts but they too need lot of improvements on understanding ethical authorship.

Key words: Publication, Authorship issues, Medicine, Pharmacy, Unethical

PICTORIAL ABSTRACT



practices.

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INTRODUCTION

The end product of any scientific research is publication. At the same time, it is the responsibility of all researchers to see that their research publication must be published with honesty and integrity adhere to the standard guidelines of ethical publications.

It is not only the scientific contribution or output of the research that matters but also the role of the contributors.¹ In a publication the research contributors are termed as 'authors'. To decide the appropriate attribution of authorship the responsibility goes to authors themselves working in a defined research plan. Researchers should make sure that only the actual contributor of the research gets authorship and off course he should not be omitted as well. There is serious paucity in formal training to educate in writing medical research manuscripts. Some formal education through workshops on regular basis is being imparted to the faculty and other researchers in India under the aegis of National Medical Journal of India since late 80s, however, chronological documentation of these events is not available. However, for the majority a conventional/experiential learning or collaborative effort of teachers, students and/or colleagues, is the only way to learn the authorship issues. In this situation ethical aspects on publication are in bottom of the priorities.²

International Committee of Medical Journal Editors (ICMJE) and Committee on Publication Ethics (COPE) guidelines clearly mention that

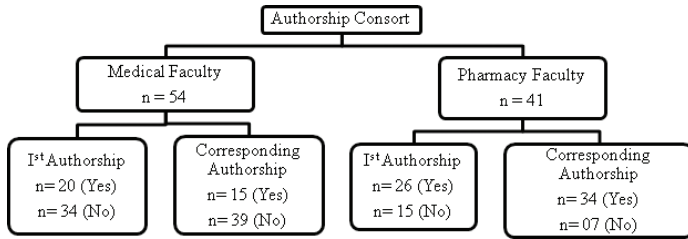
all authors should agree to be listed and should approve the submitted and accepted versions of the publication. The list of the contributors as authors including authorship order must be approved by all authors. COPE guidelines state that to remove anyone from the authorship list while under communication with the journal or even after acceptance of the manuscript needs consent from all the authors including the one who has been removed from the list.³⁻⁴ Although ICMJE and COPE like international bodies have given clear guidelines/recommendations on authorship issues but it is not practiced appropriately while writing scientific papers in India. As such we do not find detailed documentation on knowledge about scientific writing among Indian medical researchers.⁵ There is no information about the knowledge on authorship issues among researchers engaged in medicine and pharmacy.

The present study was aimed to assess the knowledge and understanding on authorship concept in research publication among the medical faculty members and pharmacy faculty members engaged in postgraduate teaching, research and guidance (MD/M. Pharm and PhD students).

METHODS

Fifty four medical faculty members and forty one pharmacy faculty members from different parts of India were assessed by a questionnaire and telephonic interview. The questionnaire was prepared by us

and modified by Committee on Publication Ethics (COPE), United Kingdom (Table 1). Primary consort for both medical and pharmacy faculty members are given below.



Primary Consort for faculty distribution

The questionnaire was aimed at assessing the knowledge and understanding on the concept of authorship issues for ethical publication. The faculty members included in this study was assistant professors, associate professors, readers and professors who were actively engaged in research and publication. The study was performed from June 2013 to December 2013. The research articles published from July 2010 to June 2013 were considered for all the evaluation in this study. ‘Original articles’ were only considered as research publication for both medical and pharmacy faculty members. Study excludes case reports, short communications, editorials, letter to editors etc.

RESULTS

Out of 54 Medical Faculty Members 20 were from preclinical (Physiology: 10, Anatomy: 3, & Biochemistry: 7), 20 from paraclinical (Pathology: 10, Microbiology: 5 & Pharmacology:5) and 14 from clinical

(Medicine:6, Surgery:4 & OBGY:4) disciplines. Among the medical faculty members 20out of 54were the 1st authors of their published articles (37.03%). In the case of pharmacy faculty members it was 26 out of 41 (63.41%). Results also revealed that 40 out of 54 medical faculty members (74.07%) and 28 out of 41 pharmacy faculty members (68.29%) confessed that they never had any discussion on authorship issues among themselves while doing research or writing papers or submitting manuscripts to the journals (Table 1). Results further show that those who had discussion among their co-authors on authorship issues only 20% of pharmacy faculty members (2/10) against 0% medical faculty members (0/11) had discussions among themselves on authorship issues during their research work. (Figure 1). Most of the medical and pharmacy faculty members have discussed on authorship issues with their coauthors either during preparation of manuscript or during submission of manuscripts (Figure 1).

Interestingly both medical and pharmacy faculty members mentioned that a professor and head of the department becomes an author by default in research publications (medical, 48/54 i.e 88.8%; pharmacy, 15/41 i.e. 36.5%). Eighty one percent (44/54) medical faculty members stated practice of inclusion of “gifted author/s” for their research manuscript whereas in case of pharmacy faculty members the figure was much lower (29%; 12/41) mentioned such occurrence in their experience except inclusion of departmental heads. Only 12 out of 54 medical faculty members (22.2%) and 16 out of 41 pharmacy faculty members (39%) were aware of COPE or ICMJE guideline on ‘Authorship’(Table 1).

DISCUSSION

Our results indicate gross prevalence of lack of knowledge and understanding on authorship issues among both medical and pharmacy faculty in scanned sample. Interestingly, it wasnoticed that pharmacy faculty

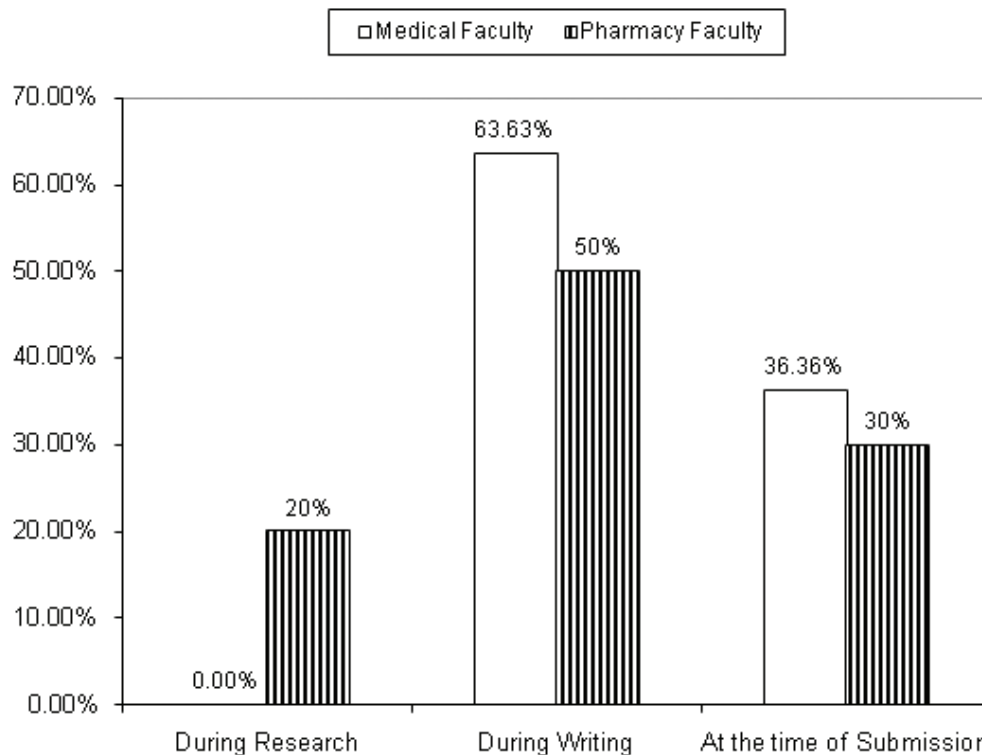


Figure 1: Discussion on authorship issues among research colleagues by medical and pharmacy faculty members in percentage

Table 1: Response of the faculty members on questionnaire to evaluate their understanding of ethical authorship

Sl.No.	Questions	Medical (n=54)			Pharmacy (n=41)		
1.	Do you have any research publication?	Yes 54(100 %)	No 0.00(0%)	No Comment 0.00(0%)	Yes 41(100%)	No 0.00(0%)	No Comment 0.00(0%)
2.	If YES, (How many research articles do you have from July 2010 to June 2013?) Total number of articles (mean+SD)	Total-109 2.01+0.81			Total-157 3.82+0.45 * (t=3.765, p<0.001)		
3.	Are you the 1 st author of any of your published article?	Yes 20(37.03%)	No 34(62.96%)	No comments 0.00 (0%)	Yes 26(63.41%)	No. 15(36.58%)	No Comments 0.00(0%)
4.	If YES, How many article of your own research you are the 1 st author? (mean+SD)	3.85+0.57			4.54+0.45* (t=15.34, p<0.001)		
5.	Did you act as a corresponding author anytime ?	Yes 15(27.77%)	No 39(72.22%)	No comments 0.00(0%)	Yes 34(82.94%)	No 07(17.07%)	No comments 0.00(0%)
6.	If YES, Did you take the approval of all other listed authors for the submission and publication of all versions of the manuscript?	Yes 11(73.33%)	No 2(13.33%)	No comments 2(13.33%)	Yes 28(82.35%)	No 5(14.70%)	No comments 1(2.94%)
7.	Did you as a author have any discussion with your colleagues on authorship issue?	Yes 11(20.37%)	No 40(74.07%)	No comments 03(5.55%)	Yes 10(24.39%)	No 28(68.29%)	No comments 03(7.31%)
8.	Have you included Professor and Head of the department as a author of your manuscript although he was not a part of the research team ?	Yes 48(88.88%)	No 05(9.25%)	No comments 01(1.85%)	Yes 15(36.5%)	No 20(48.78%)	No comments 06(14.63%)
9.	Did your senior influence you to include them in manuscript as author? (gift authorship)	Yes 44(81.4%)	No 06(11.11%)	No comments 04 (7.40%)	Yes 12(29.26%)	No 29(70.73%)	No comments 0(0%)
10.	Did you have a collaborator author in your any publication?	Yes 5(9.25%)	No 49(90.75%)	No comments 0(0%)	Yes 8(19.51%)	No 33(80.48)	No comments 0(0%)
11.	Did you mention authors' contribution while submitting manuscript to a journal?	Yes 5(9.25%)	No 45(83.33%)	No comments 04(7.40%)	Yes 10(24.39%)	No 28(68.29%)	No comments 03(7.31%)
12.	Do you know about COPE or ICMJE?	Yes 12(22.2%)	No 42(77.77%)	No comments -	Yes 16(39%)	No 25(61%)	No comments -
13.	If YES, Have you gone through on COPE or ICMJE guidelines in Ethical Authorship?	Yes 2(16.66%)	No 10(83.33%)	No comments -	Yes 3(18.75%)	No. 13(81.25%)	No comments -

members have better understanding of ethical authorship in comparison to their medical counterparts. This is evident by the fact that pharmacy faculty had more discussion on authorship issues during research (20% vs 0%) than while writing (50% vs 63.63%) or at the time of submission (30% vs 36.36%) of manuscript (Figure 1).

The reason for overall better scores for Pharmacy Faculty could be multifoldnamely-a) Pharmacy has multiple stake holders for patents/ financial gains of accomplished research, b) Funding agencies serve as watchdogs-likely to influence authorship and ownership issues, c) Pharmacy may have specialized personnel for research purposes only,

who are well trained in project proposal planning, authorship and ownership issues. Lastly, Several Pharmacy Faculty pursues research as the primary objective; for Medical Faculty, research is one of the aspects in addition to patient care and administrative duties. So Pharmacy faculties are conversant in authorship issues.

It has been reported earlier that in spite of the potential threat of the consequences on unethical practice in research publications, still many authors appear to be unaware of it or pay less attention to adhere to the ethical standard on authorship issues.⁶ Authorship establishes accountability, responsibility, and credit for scientific information reported in

biomedical publications but misappropriation of authorship undermines the integrity of the authorship system and puts entire research credibility at a stake.⁷ Failure to adhere to ethical authorship standards due to either ignorance or intentional may be treated as serious threat against integrity of research. In view of our observations we put forth two suggestions; a) The journals should get and publish 'compulsory statement' regarding the contributions and responsibilities of each individual author at the time of the manuscript Submission, b) Institutionalization of educational exposure of potential authors by academic institutions regarding ethical authorship. The educational exposure serves as preventive dose in this direction. Besides covering COPE/ICJME guidelines, the education should also address local/institutional norms of credit sharing among authors. It is better to select one standard approach or norm in the manuscript to mention contribution credits of authors by choosing one of the several approaches such as-'sequence-determines-credit' approach (SDC), 'equal contribution'(EC) norm, 'first-last-author-emphasis'(FLAE) norm and 'percent-contribution-indicated' (PCI) approach.⁸ The selected norm or approach may be referred in the first page with a footnote along with the corresponding author's information. Increased awareness of ethical authorship should sensitize

everyone to take an active role in promulgating and enforcing the highest ethical standards in biomedical publications.⁹

CONCLUSION

In conclusion, we report pharmacy faculty members are more aware on publication ethics and better at practicing than their medical counterparts. This could possibly due to poor exposure of medical faculty to knowledge of ethical authorship. The study indicates that medical faculty should be exposed to both formal and informal education in publication ethics.

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CONFLICTS OF INTEREST

None declared.

ABBREVIATIONS USED

ICMJE: International Committee of Medical Journal Editors; **COPE:** Committee on Publication Ethics; **M.D.:** Doctor of Medicine; **M.Pharm:** Master of Pharmacy; **Ph.D.:** Doctor of Philosophy; **SDC:** Sequence-Determines-Credit; **EC:** Equal Contribution; **FLAE:** First-Last-Author-Emphasis; **PCI:** Percent-Contribution-Indicated.

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