

EVALUATION OF KNOWLEDGE REGARDING PUBLICATION ETHICS AMONG MEDICAL AND DENTAL FACULTY AT A TERTIARY CARE HOSPITAL

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ABSTRACT

Objective: The scientific medical research studies conducted on human participants should be guided by fundamental ethical principles which are crucial to ensure the protection of their rights and welfare.

Methods: It is questionnairebased crosssectional study conducted among medical and dental faculties working at a tertiary care center, in India. The questionnaire contains fifteen questions to evaluate the knowledge about publication ethics. Google Form was sent among the groups and data were analyzed using descriptive statistics.

Results: A total of 147 medical and 52 dental staff were enrolled in the study. The response rate of the study was 100%. The data obtained were sorted and categorized. Among 147 medical faculty, 75 were male 72 were female. Moreover, 52 dental faculties 23 were female and 29 were male staff. The study demonstrates balanced knowledge about publication ethics among medical and dental faculties working at a tertiary care hospital, Karnataka, India.

Conclusion: The training programs would definitely increase the awareness of publication ethics among faculties and students which would bring significant changes in the scientific research field.

Keywords: Publication ethics, Informed consent, Ethics committee approval.

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INTRODUCTION

Research has played a pivotal role in the progress and evolution of medical sciences [1]. In this era of evidence-based medicine, published updated literature is the major source for effective patient care, and finding solutions for unanswered scientific questions is the main reason behind conducting research [2].

An important skill that requires updating and strengthening among health-care professions is scientific writing for the publication [3]. Academic publishing is open to innovations of various kinds [4].

Unethical practices are evident among authors, editors, peer reviewers, and publishers [5]. The authors resort to some forms of unethical practice, sometimes intentionally and occasionally by accident. Being aware of publication ethics will help readers to consciously avoid such misconduct and perform honest ethical research and pursue publications [6].

Committee on Publication Ethics (COPE) guidelines and IJCME recommendations will serve as resources in this area.

The COPE, established in 1997 by a small group of journal editors in the UK, has at present over 10,000 members worldwide that include editors of academic journals and others interested in publication ethics (<https://publicationethics.org>) [7]. Although COPE does not investigate individual cases, it serves as a forum to discuss these cases and encourages editors to ensure that each case is investigated by the appropriate authorities [8].

The ethics of publication are relatively ignored and scientific misconduct in publication that includes fabrication, falsification, and plagiarism of data or ideas are noticed [9]. Other serious deviations from accepted

research practice are irresponsible authorship, duplicate publication, salami slicing, bias, conflict of interest, and/or intentional erroneous use of statistical methods [10].

Since information from medical research in general and clinical trials in particular often influences decisions regarding patient care and health policy, it is imperative to ensure that lack of transparency, clarity, or completeness in the writing of a report arising from factors such as individual biases, competition for funding, interest in career advancement, and for drug companies, profitability, does not compromise publication ethics [11]. The awareness of publication ethics will help researchers to consciously avoid such misconduct and perform honest ethical research and pursue publications. The current study will help in the self-assessment of publication ethics and motivate the participants to update their knowledge of the same.

Hence, the present study aims to assess the knowledge of publication ethics among medical and dental faculty who are working at ESIC Medical and Dental College, Kalaburgi.

METHODS

It is a cross-sectional questionnaire-based study conducted on all the Medical and Dental faculty working in different departments at ESIC Medical and Dental College, Kalaburagi. The study was conducted over a period of 3 months after obtaining approval from the Institutional Ethics Committee. All the Medical and Dental Faculty working in different departments at ESIC Medical and Dental College, who are willing to participate in the study were included and those who are not willing to participate in the study were excluded from the study.

Convenient sampling was used with a sample size of 147 medical faculties and 52 dental faculties.

A questionnaire is designed using standard references [11]. Moreover, the study aimed to evaluate the knowledge regarding publication ethics among Medical and Dental faculty working in different departments at ESIC MC, Kalaburagi.

The questionnaire was validated with subject experts before initiating the study.

The study was conducted by online mode. The Google Forms of questions were prepared and sent to participants. Google Form questionnaire is comprised two sections; the first section inquiring demographic data and the second part includes questions related to perception of publication ethics, ICMJE criteria, COPE, and multiple-choice type on knowledge of publications ethics and major scientific misconducts including authorship criteria, submission of article, gift authorship, fabrication, falsification, and plagiarism. The informed consent was taken from the participants through structured Google Forms. The responses received from the participants were analyzed using descriptive statistics.

Statistical analysis

Results are expressed using the Statistical Package for the Social Sciences software V.21 and descriptive statistics.

RESULTS

A total of 147 medical and 52 dental staff were enrolled in the study. The response rate of the study was 100%. The data obtained were sorted and categorized. Among 147 medical faculties, 75 were male and 72 were female. Moreover, 52 dental faculties 23 were female and 29 were male staff. Table 1 shows the responses to questions by both medical and dental faculty.

DISCUSSION

The majority of medical faculty (94.5%) and dental faculty (86.5%) is well aware of publication ethics. Sixty point seven (68.7 %) of medical staff and 61.5% of dental staff responded correctly for the function of COPE. Majority of the medical staff (72.1%) and dental staff (73%) agreed that authorship can be based on the criteria given by ICMJE.

Higher number of medical (70%) and dental (59.6%) staff accepted that authorship credit cannot be given if a person is just involved in drafting the article or revising it critically for intellectual content.

The response rate about publication ethics was satisfactory in the present study, which is comparable to studies done by Zehra *et al.* and Al-Hilali *et al.* [10,12].

Maximum number of medical (89.7%) and dental (57.6%) doctors opted correct option for the question about the gift author (the person does not meet accepted authorship criteria but is listed as a personal favor or in return for payment). Comparable findings were observed in recent studies as well [13,14].

Only a few of them (5.4% of medical and 9.6% of dental staff) agreed that the author can submit again an already sent manuscript to another journal which is incorrect and the majority of them opted for the correct option. When question is about the fabrication asked, the response rate was less both in medical (67.3%) and dental staff (53.8%). Majority of them (71.4% of medical and 57.6%) knew that appropriation of another person's ideas, processes, results, or words without giving appropriate credit is known as plagiarism. Consequences of plagiarism of manuscript are retraction of the manuscript from the journal, the institute can take action on the author/researcher and the researcher loses professional reputation. Medical (69.3%) and dental (55.7%) faculties were well aware of the above consequences of plagiarism.

Among all the participants, 107 medical and 39 dental faculties answered correctly about salami slicing in the study. Salami slicing means to produce three different manuscripts instead of one manuscript, comprehensively covering all aspects of the study. The direct or indirect influence of financial, personal, and social aspects on the study is called "conflict of Interest."

Around 120 (81.6%) medical and 37 (71.1%) dental staff were well aware of factors that create the conflicts of interest in the study. Before conducting the clinical trial, it is mandatory to register the trial under "clinical trials registry of India" before conducting the study and informed consent and ethical clearance are a must for recruiting study participants in a clinical trial. Only 31 (21%) medical

Table 1: Response to questions by both medical and dental faculty

| S. No. | Questions | Medical faculty n=147 | | Dental faculty n=52 | |
|--------|--|--------------------------|--------------------|------------------------|--------------------|
| | | Correct n (%) | Incorrect n (%) | Correct n (%) | Incorrect n (%) |
| 1 | Publication ethics is? | 139 (94.5) | 8 (5.4) | 45 (86.5) | 7 (13.4) |
| 2 | Committee on Publication Ethics (COPE) is- | 101 (68.7) | 46 (31.2) | 32 (61.5) | 20 (38.4) |
| 3 | Among the following which is the best practice for determining the authorship? | 106 (72.1) | 41 (27.8) | 38 (73) | 14 (26.9) |
| 4 | Authorship credit can be given if a person is involved in drafting the article or revising it critically for intellectual content even though he/she has not contributed to designing the study or acquisition of data | 103 (70) | 44 (29.9) | 31 (59.6) | 21 (40.3) |
| 5 | If a person does not meet accepted authorship criteria but is listed as a personal favor or in return for payment, he/she is a | 132 (89.7) | 15 (10.2) | 30 (57.6) | 22 (42.3) |
| 6 | The author can submit again an already sent manuscript to another journal | 139 (94.5) | 8 (5.4) | 47 (90.3) | 5 (9.6) |
| 7 | All statements for fabrication are true except | 99 (67.3) | 48 (32.6) | 28 (53.8) | 24 (46.1) |
| 8 | All statements for fabrication in research are true except | 97 (65.9) | 50 (34) | 29 (55.7) | 23 (44.2) |
| 9 | Appropriation of another person's ideas, processes, results, or words without giving appropriate credit is known as | 105 (71.4) | 42 (28.5) | 30 (57.6) | 22 (42.3) |
| 10 | The Redundant publication means | 97 (65.9) | 50 (34) | 24 (46.1) | 28 (53.8) |
| 11 | Which of the following is (are) the consequence (s) of plagiarism of a manuscript? | 102 (69.3) | 45 (30.6) | 29 (55.7) | 23 (44.2) |
| 12 | If the researcher decided to produce three different manuscripts instead of one manuscript comprehensively covering all aspects of the study. What is this act called? | 107 (72.7) | 40 (27.2) | 39 (75) | 13 (25) |
| 13 | Direct or indirect influence of which of the following aspects is considered "conflict of Interest"? | 120 (81.6) | 27 (18.3) | 37 (71.1) | 15 (28.8) |
| 14 | Which of the following is TRUE regarding a clinical trial? | 116 (78.9) | 31 (21) | 40 (76.9) | 12 (23) |
| 15 | A person who has made a substantial contribution to the research or writing of the study but is not included as an author is called a | 89 (60.5) | 58 (39.4) | 46 (88.4) | 6 (11.5) |

and 12 (23%) dental doctors were not well aware of clinical trials. However, 116 (78.9%) medical and 40 (76.9%) dental doctors have very good knowledge about conducting clinical trials. In a study done by Hadir *et al.*, a large majority of the faculty appears to be aware of the accepted practices regarding confidentiality protections and several aspects regarding the informed consent process [15]. In studies conducted by Gadhade *et al.* and Mohammad *et al.*, the majority of the residents responded that research studies should be reviewed by EC before beginning it [16,17].

Guest author is a person who has made a substantial contribution to the research or writing of the study. In the present study majority of faculties (both medical [60.5%] and dental [88.4%]) have knowledge about guest author. In a recent study done by Mubeen *et al.*, only 106 (17.9%) and 226 (38.2%) of the students gave correct responses for gift and ghost authorship, respectively [8].

The limitations of the present study are the present study is a single-center study conducted only on medical and dental faculties. We did not involve the postgraduate as the number of postgraduates in this institution is very low. We have just evaluated the knowledge of publication ethics both in medical and dental faculties, but we did not compare the knowledge among them.

CONCLUSION

The study clearly demonstrates balanced knowledge about publication ethics among medical and dental faculties working at a tertiary care hospital, Karnataka, India. The training programs would definitely increase the awareness of publication ethics among faculties and students which would bring significant changes in the scientific research field.

AUTHOR CONTRIBUTION

All the authors are involved in designing, collecting the data, analyzing the results as well as drafting the data of the study.

CONFLICT OF INTEREST

None.

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