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Perceived Barriers to Publication in Scholarly Journals by Faculty from Maharajgunj Medical Campus

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ABSTRACT

Background: Due to multiple reasons, the faculty members in Nepal devote less than expected time to research and publication. This could be attributable to various challenges unique to each faculty member and their institution. The present study aims to evaluate the potential barriers to publication faced by the faculty of Maharajgunj Medical Campus, Kathmandu, Nepal.

Methods: This cross-sectional observational questionnaire-based study was conducted among the 139 faculty members representing various departments of MMC.

Results: The significant barriers were: difficult coordination (43.2%), the response time of the reviewer (48.2%), overburdened with work (39.6%), lack of funds for research (44.6%), limited submission skills (33.8%), poor writing skills (35.3%), difficulties in starting to write (42.4%), lack of time to submit a paper (43.9%), and family commitment (36.7%).

Conclusions: The findings of this study could be used to advocate for a prospective change in the work module to produce competent medical researchers generating high-quality publications.

Keywords: Academia; low-income countries; publication, research

INTRODUCTION

Research and publication are universally acknowledged as an important component of an academic's career. It is not only a requirement for academic growth and promotion but also needed for inspiring younger colleagues in addition to being a symbol of true academics.[1] Conducting good quality research and publishing it in a scholarly, peer-reviewed journal is the ultimate dream of any researcher. However, many clinicians perceive publication as a burden. The reasons could be manyfold. Insufficient research capacity, insufficient exposure to academic research culture, inadequate research enthusiasm, increased workload, and poor research output appraisal are some commonly cited barriers to publication.[2-5] These issues must be resolved at the earliest to ensure long-term advancement and sustainability of the research output by the faculty. However, there is a paucity of data regarding the publication status among the medical faculty from Nepal. This study aimed to evaluate the publication status of the faculty of Maharajgunj Medical Campus (MMC) of the Institute of Medicine (IOM) and the potential barriers to publications.

METHODS

This cross-sectional study was conducted in the

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Research Department, Institute of Medicine, from January 6, 2022, to March 18, 2022, after getting approval from the Institutional Review Committee of the IOM, Kathmandu, Nepal [letter reference: 254 (6-11) 078/079].

The faculty of MMC (lecturers, readers, and professors) who consented to participate were included in the study. Informed consent was obtained before distributing the questionnaire.

The pre-validated questionnaire developed by Duracinsky et al. was adopted.[1] A digital form was designed using Google Forms (©Google Inc.), which enclosed the digital consent form. Each participant was offered a choice of participation in the study. The questionnaire comprised six open-ended and 16 closed-ended questions. The open-ended questions were designed to document the basic information of the participants. The first four closed-ended questions were to document the number of publications of the participants. The remaining 12 close-ended questions were designed to assess the perceived barriers to publication in the biomedical journals by the faculty using the Likert scale, ranging from 1 to 5 (from strong disagreement to strong agreement). One hundred thirty-nine faculty members out of 253 (55.0%) responded to the questionnaire. The data was entered into a Microsoft Excel spreadsheet and analyzed with the Statistical Package for Social Sciences Version 21. Descriptive statistics were used to summarize the data regarding perceived barriers to publication. The significant difference in the total number of articles published was tested among different categories of the respondents. As there was non-normality in the data of the total number of publications, the Mann Whitney U test was used for two categories, and the Kruskal Wallis test was applied to three or more categories of the variables. A p-value of <0.005 was considered statistically significant.

RESULTS

Of 232 faculties, 139 (60.0%) responded and consented to participate in our study. Eighty seven (62.6%) were males, and 52 (37.3%) were females. There was no significant difference in the number of publications according to the sex of the individual.

The mean age of the respondents was 42.9 (± 6.4) years. Fifty four (38.8%) were less than forty years of age. The number in the 41-50 age group was 67(48.2%) and 18(12.9%) of those were more than 50 years of age. There was a significant difference in the number of publications according to the age of the individual (p<0.003).

The median number of publications was 15 (range: 5-22) in the category of age groups of 30-40 years, 16(range: 9-34) in the 41–50 age group, and 21(range: 15-48) in the more than 50-year age group, as shown in Whisker Plot (Figure 1).

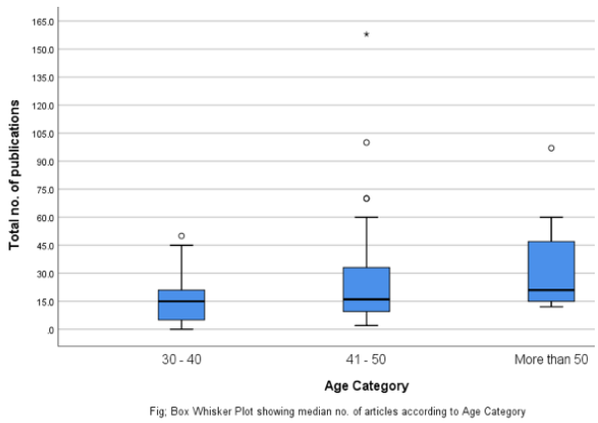

Figure 1.The Whisker Plot showed the median number of articles according to age category.

Regarding the educational qualifications, 25 (18.0%) had a post-master doctorate (DM/MCh/Ph.D.) degree, and the rest [114 (82.0%)] held a master's degree. The median number of publications was 15 (range: 8-25) and 25 (range: 15-43) in faculty with master's and doctorate degrees, which was statistically significant (p< 0.002).

Twenty eight (20.1%) had worked for the Institute for less than five years, while 37 (26.6%) had worked for six to ten years. The highest number of faculty [44 (31.17%)] was in the 11-15 year old group. Similarly, 20 (14.4%) and 10 (7.2%) faculty had worked for 16-20 years and more than 20 years, respectively (Table 1).

As shown in table 1 the median number of publications varied depending on the number of years spent on the campus. The highest number was 25 (range: 14-44) from those who had worked for more than 20 years. There was a significant difference (p< 0.000) in the number of publications in the different groups according to the duration of employment (Table 1).

Table 1. The median number of publications according to the duration of employment.

Variables	N (%)	Median number of Publication (Q1, Q3)	Chi square/Z value	p- value
0-5	28(20.1)	8(3,20)	25.12	<0.000*
6-10	37(26.6)	15(6, 21)		
11-15	44(31.7)	20(13,38)		
16-20	20(14.4)	20(15,39)		
More than 20	10(7.2)	25(14,44)		

Sixty four (46.0%) respondents were working as lecturers, 50 (36.0%) as associate professors, and 25 (18.0%) as professors. The median number of publications was 10 (range: 4-20), 20 (range: 14-34), and 32 (range: 15-48) at the lecturer, associate professor, and professor levels, respectively. There was a significant correlation between the faculty level and the median number of publications (p< 0.000).

The total number of publications by a single faculty member ranged from zero to 158. The overall median number of publications was 18 (range: 8-28). In the comparison of all the categories, only one faculty did not have any articles. The highest number of articles published by the faculties was 105 (75.5%) as a second or third author, followed by first-author publications of 79 (56.8%). The least number of articles was in the group of second or third authors (2.9%) with zero co-authorship. Similarly, 8 (5.8%) had a very low number of publications as the first author (Table 2).

Table 2. Number of articles published based on their authorship.

	No articles N (%)	1-2 articles N (%)	3-4 articles N (%)	5 and more Articles N (%)
Articles as 1st Author	8(5.8)	21(15.1)	31(22.3)	79(56.8)
Articles as 2nd and 3rd Author	4(2.9)	13(9.4)	17(12.2)	105(75.5)
Article as Corresponding Author	20(14.4)	36(25.9)	25(18.0)	58(41.7)
Articles as Last Author	29(20.9)	47(33.8)	27(19.4)	36(25.9)

The barriers to publication are summarized in Table 3. The main perceived barriers to publication were difficulty in coordination for the publication (43.2%), the response time of the reviewer (48.2%), being overburdened with work (39.6%), lack of funds for research (44.6%), limited submission skills (33.8%), poor writing skills (35.3%), difficulties in starting to write (42.4%), lack of time to submit a paper (43.9%), and family commitment (36.7%).

Table 3. Perceived barriers to the publication.

Variables	Strongly disagree N (%)	Disagree N (%)	Neither agree nor disagree N (%)	Agree N (%)	Strongly Agree N (%)
Difficulty in coordination	7.0(5.0)	21(15.1)	43(30.9)	60(43.2)	8.0(5.8)
Response time of the reviewer	5.0(3.6)	14(10.1)	37(26.6)	67(48.2)	16(11.5)
Discordance of authors and co-authors	10(7.2)	43(30.9)	50(36.0)	32(23.0)	4.0(2.9)
Departmental workload	2.0(1.4)	11(7.9)	19(13.7)	52(37.4)	55(39.6)
Lack of funding and publication fees	4.0 (2.9)	6.0(4.3)	16(11.5)	62(44.6)	51(36.7)
Fear of negative or unoriginal result	18(12.9)	45(32.4)	53(38.1)	18(12.9)	5.0(3.6)
Limited submission skill	15(10.8)	45(32.4)	30(21.6)	47(33.8)	2.0 (1.4)
Limited writing skill	10 (7.2)	45(32.4)	33(23.7)	49(35.3)	2.0(1.4)
Difficult to start writing	10 (7.2)	29(20.9)	27(19.4)	59(42.4)	14(10.1)
Limited english or Language barrier	19(13.7)	58(41.7)	39(28.1)	21(15.1)	2.0(1.4)
Lack of time to submit a paper	6.0(4.3)	28(20.1)	30(21.6)	61(43.9)	14(10.1)
Family commitment	3.0 (2.2)	32 (23.0)	41(29.5)	51(36.7)	12(8.6)

DISCUSSION

The frequent publication is one of the few effective tools for academicians to demonstrate their research potential to the scientific community.[6] A well-written research paper published in a 'high-end' journal will draw attention to the researchers and their institutions.[7] Academic institutions and universities are widely implementing a certain number of research papers as a requirement for the promotion of their faculties. Researchers with fewer publications may find it difficult to meet the requirements for a position. In addition, administrators and colleagues frequently use an individual's number of publications to gauge competence. For these reasons, faculty members are under a lot of pressure to publish.[8-10]

The present study demonstrated that the mean number of articles in males was higher than in females, although not statistically significant. This finding is in contradiction to the results by Fridner et al., Larivière et al., and Long, who reported gender inequality in publication status. [6,11,12] It may be due to the fact that men are reported to have control over their work and maintain communication with former thesis supervisors and other potential researchers.[13,14] In addition, exhaustion among females compared to their counterparts due to both interpersonal and social factors could also have a negative influence on publishing rates and quality. However, in our institute, female academicians have seemed to overcome these barriers.

The present study showed a proportionate increase in publication with age, similar to the studies by Abramino et al.[15] However, Bonaccorsi & Daraio[16] reported that publication peaks at 40 and declines steadily thereafter. As age advances, the motivation to publish increases as one wishes to apply for a senior position. In our study, there was a steady increase in the publication output over the years, with the years not peaking at 40.

The present study showed that the higher the educational qualification and the academic ranking, and the longer the duration of employment, the higher the number of publications, which coincides with the study by Kyvik and Abramo et al.[15,17] These results are not unexpected. It may be due to the fact that scientific papers rise with academic rank: professors are the most prolific, while those in lower academic positions publish fewer papers. As researchers, the junior staff has fewer years of experience. Because knowledge builds up with time, a scientist in a senior position is more likely to be able to conduct research and produce articles at a higher level. Furthermore, senior individuals frequently take the lead in research projects and may be active in multiple research initiatives at once, resulting in more publications. [12]

The faculty members agreed on a number of challenges, including coordination for the publication. It could be owing to the fact that national and international collaborative research necessitates coordination across multiple dimensions, [18] which can be difficult to execute due to practitioners' busy and stressful schedules. Involvement in international research collaboration creates opportunities, including the exchange of scientific information and skills, as well as increased research quality.

Another hurdle faced by many researchers was the lengthy review time of the articles. Thus, many were hesitant to submit their studies to higher-ranking journals because of concerns about the length of time it would take for their publications to be reviewed. Often, the faculty must publish a certain number of articles in a short period of time to meet the publication requirement for a promotion. For this reason, manuscripts are frequently submitted to lower-rank journals. The solution to this is that every faculty member should start writing well ahead of time so that their articles are published in high-ranking journals. In addition, they should update their skills in academic writing and submission to increase their chances of publication in reputed journals. Our finding of increased workload in the department as a barrier to publication is similar to that reported by Oshiro et al.[19] According to the previous research, the most vital element linked to a higher chance of publishing in a high-impact journal was the amount of time available to focus exclusively on research.[20] When a researcher spent more than 90% of his working time on research, his odds were almost 36 times higher than when he spent only 10%.[21] In clinical subjects, this may not be possible. However, a certain amount of time should be dedicated to research and publication aside from clinical work at the department and institutional level. Another potential solution is promoting collaborative research and publication so that small contributions by multiple academicians can result in a robust publication. Faculty members who have published in high-impact journals should be recognized to motivate them to publish more.

The responders agreed that the lack of funding is a significant barrier as it impacts the quality and quantity of the publication, similar to the reports by Jahangir et al. and Nadarajah[21-22] from Pakistan and South Africa. This is more obvious in low- and middle-income countries. However, this could potentially be due to a lack of

awareness. There are many institutions in Nepal (such as the University Grant Commission, the Nepal Academy of Science and Technology, and the Nepal Health Research Council) that provide research support to researchers. Moreover, there are many high-impact open-access journals that do not charge a fee for publication. The solution to this is that the research department and IRC of IOM should make the prospective researchers aware of this fact.

Thus, the universities should encourage research grants applications and facilitate [23] faculty's applying for them. It is difficult to prove strict causal ties in a system with feedback processes (publications lead to grants, which lead to more publications). However, a mechanism to promote grant applications could be advocated.

Other barriers, like limited writing and submission skills, could be addressed by offering them periodic training and short-term fellowships in research and publications. Critical appraisal of literature is another important area to master, which not only improves understanding of recent developments and management choices for a certain condition but also enhances the writing skills.[24]

Although the majority of the faculty disagreed that English is not a language barrier in this questionnaire study, it may not be applicable to all the medicos in Nepal. Although English is not a foreign language in Nepal, [25] many still struggle with proficiency in writing English manuscripts. This can be addressed by collaborating with native English speakers as co-authors, provided they meet the criteria for authorship.

Our study is focused on a single center and may not reflect the scenario of other academic centers. Also, there are some variations in the publication needs related to promotion in other universities (e.g., Kathmandu University) that may affect the scenario in other centers. Furthermore, the set of researchers involved in the study is highly diverse, and their level of involvement in research may vary. Some may be quite active and devote a significant amount of time to research, while others may conduct studies on a relatively small scale.

CONCLUSIONS

This study looked at the publication status of faculty working in a major medical institution in Nepal. Knowing the constraints of the faculty, the institute may explore the roadblocks and build a working module that includes a research component. The faculty must be given time during their working hours to conduct research and subsequent publication. Barriers should be addressed in a stepwise manner.

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CONFLICTS OF INTEREST

The authors have declared that there is no conflict of interest.

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