

SciPub-019-Getting Your Article Published in Scientific Journals- an Event Report

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Introduction: The quantity and quality of published research from Nepal, though improving, are low. Among other factors, lack of knowledge about scientific writing is an important contributor. Thus, with the objective of improving knowledge about scientific writing, a one-day workshop was conducted, entitled, “SciPub-019-Getting your article published in scientific journals”.

Methods: The knowledge and attitude of participants were evaluated both before and immediately after the workshop.

Results: Thirty-three individuals participated with most (48.5%) being pharmacists, followed closely by doctors. 66.7% of the participants were males and 72.7% of participants had published one article as of the workshop date while the rest had published two. On specific questions, there was a significant difference between the responses regarding the abstract being the first part of the paper to be written, before and after the workshop. There was also a significant difference between the overall responses of the participants.

Conclusion: Improvement in the knowledge of the participants about scientific writing and publication was noted. Workshops of similar nature should be regularly conducted to improve the knowledge of new researchers about scientific writing.

Keywords: Nepal, research, scientific publication, scientific writing, workshop

Introduction

Conducting research into various aspects of health can lead to better understanding and eventual solutions to problems.^{1,2} There has been a multi-fold increase in the number of scientific articles published worldwide.³ However, Simkhada et al reported that between 1996 and 2007, only 41% of the studies conducted in Nepal and published had Nepalese researchers as first authors, and such research focused only on a very narrow spectrum of topics.⁴

Lack of effective scientific writing skills is often one of the primary challenges for scientific publication, along with other factors such as lack of funding, and problems with research infrastructure.⁵ There could be multiple factors contributing to this scenario, among which lack of knowledge about research methodology and scientific writing has been quoted as a major one.⁶ Therefore, there is a need for training of health-care professionals in research methodology and scientific writing.

The need for periodic training regarding research and scientific writing has been recognized by the scientific community in Nepal.⁷ Workshops have been used widely in different settings to facilitate the dissemination and practice of scientific writing.^{8,9} Such workshops often utilize interactive sessions followed by group activities or tasks to enhance understanding through practice.⁹ In the past,

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workshops have been conducted in Nepal, focusing on proposal writing⁹, research ethics and other pertinent matters related to the initial phase of the research process.¹⁰

With the aim of improving the knowledge of participants about scientific writing, literature review and scientific publication, a workshop entitled “SciPub-019-Getting your articles published in scientific journals” was conducted on the 28th of May, 2019 at KIST Medical College and Teaching Hospital, Gwarko, Lalitpur, Nepal. The event attracted participants from a variety of institutions and different professional backgrounds. Several distinguished researchers facilitated sessions on important aspects of research writing along with a small group activity on abstract writing.

The following sessions were conducted during the workshop:

1. Why articles are rejected- views from a reviewer
2. Writing an abstract for research articles and conferences
3. Writing an original research article
4. Tips for scientific writing
5. Group work on abstract writing
6. Literature search with HINARI
7. Formatting articles according to journal requirements

The details of each session have been included in [Appendix I](#).

Methods

Study Design and Study Area

The questionnaire-based study was carried out among health-care professionals participating in the workshop, conducted at KIST medical college and teaching hospital, Lalitpur, Nepal. The workshop and the study were conducted on 28th May 2019. There were 33 participants, all of whom agreed to participate and were administered the questionnaire. Information about the workshop was circulated via various media outlets.

Selection of Participants

There was an open call for participants by sending an official letter to various institutions for nominating participants for the workshop. Participants were selected on a first-come first-served basis. The participants were divided into three groups, each consisting of a mixture of health-care professionals like doctors, dentists, pharmacists, and nurses.

Selection of Resource Persons

The workshop was facilitated by academic experts including chief editors of the Journal of Nepal Health Research Council (NHRC), Journal of KIST Medical College (JKISTMC) and Journal of Nepal Medical Association (JNMA). Other resource persons were academicians from KIST Medical College and abroad. One resource person was a librarian who was the national contact person for HINARI. Participants were given information about using HINARI and also about PubMed for searching the relevant articles as per their needs. The details about the resource persons have been included in [Appendix II](#).

Data Collection Tool

A structured questionnaire ([Appendix III](#)) was distributed to the participants before and immediately after the workshop to evaluate the impact of the workshop on the knowledge and attitude of the participants. The questionnaire contained the following questions:

- (a) Questions related to demographic characteristics: These comprised questions pertaining to the participants’ gender, profession, and publications.
- (b) Questions related to knowledge and attitude: 15 questions, 14 of which were related to the knowledge of the participants, while 1 related to their attitude. The responses were categorized according to a 5 point Likert scale as 1 = Strongly disagree with the statement, 2= Disagree with the statement, 3= Neutral, 4= Agree with the statement, 5= Strongly agree with the statement.

Statistical Analysis

The answers were entered in MS-Excel 2010 (Microsoft Corporation, Redmond, WA, USA) initially and later exported to SPSS Version 21 (SPSS Inc., Chicago, IL, USA) and analysis was performed. A paired *t*-test was used to analyze the difference in the mean of the responses towards various questions prior to and after the workshop was conducted. A *p*-value of <0.05 was considered significant.

Results

Demographic Characteristics of Participants

[Table 1](#) defines the demographic characteristics of the study participants. All the participants completed the questionnaires. There were 33 participants, with 48.5% of them

Table 1 Demographic Characteristics of Study Participants (n = 33)

Variables	Frequency	Percent
Profession of the participants		
Pharmacist	16	48.5
Doctor	15	45.5
Nurse	1	3.0
Academician	1	3.0
Total	33	100.0
Gender of the respondents		
Male	22	66.7
Female	11	33.3
Total	33	100
Number of publications		
One	24	72.7
Two	9	27.3
Total	33	100.0

being pharmacists, followed closely by doctors. Similarly, 66.7% of the participants were males; 72.7% of participants had published one article as of the workshop date while the rest had published two.

Analysis of the Participant Responses

Table 2 shows the differences in the scores before and immediately after the workshop related to the knowledge and attitude of participants. Among 15 questions, there was a significant difference in the response towards only one question, relating to knowledge.

Table 3 shows the change in the total score of the responses towards all the questions. There was a significant difference in the responses of participants before and after the workshop.

Discussion

A combination of theoretical and practical approaches to teach research methodology has been recommended to overcome barriers in scientific writing.⁶ As such, the current workshop contained theoretical, interactive sessions accompanied by hands-on practical training.

A study in Iran had shown low-to-moderate knowledge among medical students about research methodology.¹¹ A similar study in India had shown that most of the participants in the study had no previous exposure to research writing.¹² However, in the current study, all the participants had previous experience in scientific writing as is evident by all participants having at least one publication.

Most participants disagreed that the abstract is the most read part of a scientific paper; however, the abstract is often the most and only read part of a scientific paper.¹³ Similarly, most participants agreed that the abstract is often freely available online. Most journals and databases provide free access to the abstract to the readers.¹⁴

The mean score for the question regarding whether the abstract is the first part of the paper to be written decreased significantly following the workshop. Most participants agreed that the methods section is the first part of a paper to be written. This is often recommended as one of the strategies to start writing an article rather than focusing on the introduction section first.¹⁵ Thus, the session on writing abstracts for research articles and conferences seem to have been effective. However, greater focus could be placed on the section on writing the research article, since the mean score for the question regarding whether the abstract is the first part of the paper to be written leans towards an agreement with the statement.

An exceedingly high score was obtained for the statement regarding a lack of clear expression and language as a potential barrier in publication. The score tended to rise slightly but not significantly in the post-workshop questionnaire. It was highlighted repeatedly during the workshop to use clear concise language in scientific writing. Its impact on the publication of articles was clearly understood by the participants. All writing, including the objectives of the study, should be clearly communicated to the reader.¹⁶ Poor English makes the article difficult to read, thus, prone to rejection.¹⁷ Adhering to grammar rules is another important facet of effective writing and authors not fluent in English are often advised to get their articles proofread by a language editor or similar services.^{5,16,18} A good mean score was obtained for the statement related to this fact indicating participants' agreement.

Similarly, a high mean score was observed, indicating agreement with statements related to the improper use of statistics as a factor that could lead to article rejection. The use of correct statistics and correct interpretation of outcomes is crucial for publication.¹⁹ Overall, it can be noted that the workshop had a significant impact on the knowledge of the participants and improved their understanding of scientific writing and publication. The knowledge gained in this workshop would be helpful for the participants to conduct and engage in scientific writing themselves as is suggested by similar studies.⁹ Similar workshop has been carried out in Nepal to further the knowledge about scientific writing.²⁰

Table 2 Pre and Post-Workshop Scores of Individual Statements

S.N.	Statement	Items	N	Mean	SD	p-value
1.	Articles are often rejected due to a lack of clear expression and problems with language and grammar.	Q1	33	4.70	0.637	0.856
		PQ1	33	4.67	0.777	
2.	There is no necessity for articles to be prepared according to the journal instructions.	Q2	33	4.03	0.847	0.097
		PQ2	33	4.39	0.788	
3.	Problems with the use of statistics can lead to rejection of a paper.	Q3	33	3.88	0.927	0.469
		PQ3	33	4.06	1.171	
4.	The abstract is the most read part of a scientific paper.	Q4	33	2.27	1.606	0.091
		PQ4	33	2.88	1.883	
5.	The abstract is the first part of a paper to be written.	Q5	33	4.15	0.906	0.003
		PQ5	33	4.73	0.517	
6.	An abstract is often available free of charge.	Q6	33	4.06	0.966	0.250
		PQ6	33	4.39	1.116	
7.	Writing a research article is a systematic process.	Q7	33	4.52	0.712	0.073
		PQ7	33	4.76	0.502	
8.	The Methods section is often the first part of a paper to be written.	Q8	33	4.15	0.795	0.782
		PQ8	33	4.21	1.139	
9.	Research papers should be written in flowery English.	Q9	33	4.09	0.947	0.441
		PQ9	33	3.85	1.417	
10.	The Profs' Ten Commandments provide a guide for scientific writing.	Q10	33	2.85	1.202	1.000
		PQ10	33	2.85	1.503	
11.	Language and grammar play an important role in the readability of a paper.	Q11	33	4.09	0.765	0.747
		PQ11	33	4.00	1.299	
12.	A passive voice is better for writing a research article.	Q12	33	4.36	0.699	0.245
		PQ12	33	4.55	0.666	
13.	HINARI offers both band A and B access with Nepal coming under band B.	Q13	33	4.61	0.609	0.872
		PQ13	33	4.58	0.902	
14.	HINARI provides access to e-books in addition to full texts of scientific articles.	Q14	33	4.55	0.711	0.325
		PQ14	33	4.70	0.467	
15.	I am confident about accessing HINARI to help with my research.	Q15	33	4.39	0.609	0.095
		PQ15	33	4.67	0.777	

Note: Q stands for Pre-questionnaire and PQ stands for post questionnaire.

Table 3 Total Score Before and After the Workshop

S.N.	Items	N	Mean	SD	P-value
1.	Pre- Total	33	60.69	0.59	0.040
	Post- Total	33	63.27	5.584	

Compared to the results obtained by Goyal et al,¹² it is clear that the participants in this workshop had a better baseline understanding of various aspects related to research writing. The reason for this could be that in the

aforementioned study, the population was inexperienced in research.

However, there are some limitations to this study. Firstly, the study was carried out in a small group of individuals with prior experience of publication. Secondly, the effectiveness of the workshop as an intervention towards better writing practices has not been studied over a longer period of time.²¹ Besides, the content presented in the workshop could be expanded further. Although workshops of this kind should be carried out

more frequently, the impact of such workshops should be studied more comprehensively in the future.

Conclusion

The participants of the one-day workshop on scientific writing and publication had some prior experience of scientific writing, as evident from the noted publications in the responses. The workshop enables the participants to understand and learn more about scientific writings and was believed to create a model for future researchers. The format of the workshop can be emulated and used as a guideline for beginner researchers in future programs of similar nature.

Ethical Approval

The ethical approval was taken from Institutional Review Committee (IRC) of Nobel College, Kathmandu, Nepal. (Ref No ERP IRC 288/2019).

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Disclosure

The authors report no conflicts of interest in this work.

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