

Training workshop on “writing research report and manuscript for publication”: feedback of the participants

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ABSTRACT

INTRODUCTION

Undergraduate medical students face great challenges in writing research reports and manuscripts for publication. Training workshops on writing research reports and manuscripts play a key role in addressing these challenges. Bilawal Medical College organized a one-day Training workshop on “Writing Research Report and Manuscript for Publication” for undergraduate medical students.

MATERIAL AND METHODS

This descriptive cross-sectional study was conducted with the objectives to document the process of a training workshop and assess the feedback of participant students. Feedback was taken using a valid self-administrated questionnaire. The data was analyzed with SPSS-23.

RESULTS

The process of the training workshop is documented in the methodology section of the text. Twenty students participated in the training workshop; the response rate was 100%. The calculated Cronbach's Alpha of the administrated questionnaire was 0.892. The rating of the participants on the attributes of training workshop i.e., usefulness, content, relevance and delivery of content, facilitation and overall were notable. Participants reported significant improvement ($p < 0.05$) in their level of knowledge and understanding with regard to "Writing Research Report", "Guidelines for Writing Research Report", "Structure of Research Report", "Writing Research Manuscript for Publication" and "IMRaD Paper Structure" after participation.

CONCLUSION

Feedback of the participant students was positive, their perceived knowledge and understanding on writing a research report and research manuscript for publication after participation in a training workshop was significantly enhanced.

KEYWORDS

Feedback, Manuscript writing, Report writing, Training workshop, Undergraduate medical students

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INTRODUCTION

Academic writing including writing a research report and manuscript is one of the essentials of higher education including medical education. Academic writing includes writing reports, essays, thesis, dissertation, and articles for scientific journals.¹ These are important skills for the students to learn as these help them to secure academic scholarship, take part in scholarly deliberations, communicate research findings, and create space within scholars' circles.²⁻³ Writing a research report is the basis for learning and understanding academic writing. This is a cognitive demanding piece of work for students to learn.¹ Writing a research manuscript is not an easy task but a painstaking, precise and thorough process indispensable for effective communication of research data.⁴

Medical students face great challenges in writing research reports and manuscripts.² Training workshops on writing research report and manuscript play a key role in addressing these challenges.⁵ Keeping this in mind, Bilawal Medical College (BMC), Liaquat University of Medical and Health Sciences (LUMHS) organized a training workshop for undergraduate students regarding writing research reports and manuscripts for publication and investigating their perceptions. The research question in this study was: What are the perceptions of participant students about a Training Workshop on Writing Research Report and Manuscript for Publication. The objectives of this study were to document the process of a training workshop in brief and assess the feedback of participant students.

MATERIAL AND METHODS

This descriptive cross-sectional study was done at Bilawal Medical College (BMC), Liaquat University of Medical and Health Sciences (LUMHS), Jamshoro Sindh, Pakistan. The main objectives of this study were to 1) report a brief account of the Training Workshop on “Writing Research Reports and Manuscripts for Publication” for undergraduate students of healthcare and 2) assess the feedback of the participant undergraduate medical students who attended the training workshop.

Brief Account of the Training Workshop on “Writing Research Reports and Manuscripts for Publication”

A one-day Training Workshop on “Writing Research Reports and Manuscripts for Publication” for undergraduate students of healthcare (a pre-conference workshop of Medical Undergraduate Research Conference-MURC-2025) was organized by the Medical Education Department of BMC, LUMHS, Jamshoro, Sindh, Pakistan on Tuesday August 19, 2025. It was held at the Medical Education Hall of BMC.

The objective of the training workshop was to enable the participant undergraduate students to explain the basic skills of Writing Research Report and Manuscript for Publication and differentiate between them.

The methods used for conducting the training workshop were Interactive Tutorial with Brainstorming. There were two tutorial sessions in the workshop: one was on Writing Research Report, and another was on Writing Manuscript for Publication. The topics covered in the tutorial on Writing Research Report were guidelines for writing research report, formatting research report, and structure of the research report. While the topics covered in the tutorial on Writing Manuscript for Publication were guidelines for writing research manuscript for publication and IMRaD paper structure.

Twenty students from different years studying MBBS at BMC participated in the training workshop. Participants were invited by academic year for registration of participation against 20 allocated seats on first come first register basis. The principal author was the main resource person who facilitated the training workshop and second, third and fourth authors co-facilitated the training workshop.

Assessment of the feedback of the participant students participated in Training Workshop

The written feedback was taken from the participants utilizing a validated questionnaire after taking informed consent from the participants. The feedback questionnaire was comprised of two parts:

First Part- Rating of the Participants on Attributes of Training Workshop

This part contained one question i.e. rating training workshop on scale 1 to 10 (1=poor; 10=excellent) for usefulness, content, relevance and delivery of content, facilitation and overall.

Second Part- Feedback of the participants on Level of Knowledge and Understanding after participation in training workshop.

This part contained a retro-pre-questionnaire having five questions on the level of knowledge and understanding before and after participation on Likert scale 1 to 4 (1=little; 4= very-good). The questions were level of knowledge and understanding about "Writing Research Report"; "Guidelines for Writing Research Report"; "Structure of Research Report"; "Writing Research Manuscript for Publication" and about "IMRaD Paper Structure" respectively.

The data was entered in SPSS version 23 and checked for completeness, accuracy and consistency. Descriptive statistical analysis of data was done for central tendency. As the data of retro-pre-questionnaire was normally distributed, hence, a paired -sample t-test was used for comparing the means of the responses of the participants on five statements of retro-pre questions before and after participating in the training workshop. Shapiro-Wilk test was used to test for normality of the retro-pre score difference. The p-value was computed for significance.

Ethical Approval was taken (No: BMC/Principal/2025/1153, dated August 18, 2025) from authority and informed consent was taken from the participating students.

RESULTS

The calculated Cronbach's Alpha of a five-item retro-pre-Likert scale questions based on standardized items for the reliability of the self-administered questionnaire was 0.892; the value signifies good reliability. Out of 20 participating students, 20 consented to give feedback and filled the feedback questionnaire. The response rate was 100%.

The rating of the participating students on attributes of the Training Workshop on “Writing Research Report and Manuscript for Publication” are given in table 1.

Table 1. Rating of the participants on attributes of Training Workshop on “Writing Research Report and Manuscript for Publication”

Attribute on scale (1-10) (1=poor; 10=excellent)	Score
Usefulness	8.90±1.55
Content	8.75±1.45
Relevance and delivery of content	9.15 ±1.14
Facilitation	8.90 ±1.37
Overall	8.70±1.30

The level of knowledge and understanding of the participant students before and after participation in the Training Workshop on “Writing Research Report and Manuscript for Publication” are documented in table 2.

Table 2. Level of knowledge and understanding of participants before and after participation in Training Workshop on “Writing Research Report and Manuscript for Publication”

Statement regarding knowledge & understanding item (Likert scale 1-4.) (1=little; 4= very-good).	Before participation in training workshop	After participation in training workshop	p-value
Writing Research Report	1.50±0.76	3.15±0.74	< 0.05
Guidelines for Writing Research Report	1.35±0.59	3.20±0.77	< 0.05
Structure of Research Report	1.48±0.71	3.04±0.84	< 0.05
Writing Research Manuscript for Publication	1.45±0.76	3.25±0.72	< 0.05
IMRaD Paper Structure	1.25±0.64	3.25±0.79	< 0.05

DISCUSSION

Acquiring skills in how to write the research report and manuscript for publication is critical for the professional development of medical students and doing evidence-based practice in future. Research training for the students is one of the key components of medical education.⁶ The findings of this study are discussed under the objectives of the study.

Document Brief Account of the “Training Workshop on Writing Research Report and Manuscript for Publication”

The brief account has been documented in methodology section of this study. (see methodology)

Assess the feedback of the participant students participated in Training Workshop on “Writing Research Reports and Manuscripts for Publication”

The rating of the participants of our study on the attributes of training workshop i.e., usefulness, content, relevance and delivery of content, facilitation and overall were notable and their knowledge and understanding about writing research report and research publication after participation in a training workshop were significantly enhanced. Participants of our study mentioned significant improvement ($p < 0.05$) in level of knowledge and understanding about "Writing Research Report", "Guidelines for Writing Research Report", "Structure of Research Report", "Writing Research Manuscript for Publication" and about "IMRaD Paper Structure".

The findings of our study are consistent with the findings of other studies. Understanding the structural frameworks, such as the IMRaD (Introduction, Methods, Results, and Discussion) is critical for undergraduate students stated by Pan M X, Xie D, and Zhang J.² Participants of our study gained knowledge in this regard. Participating undergraduate medical students of an academic report writing program organized by Chiba University in 2023 reported highly useful activity for learning. Majority of the participants revealed that they gained new knowledge. Also, participants perceived the significant improvement in report writing skills after participation.¹ Students of Jordan University of Science and Technology, who participated in a one-day workshop about manuscript writing and research integrity found the workshop useful for understanding the key concept of manuscript writing. They reported significant gain in the knowledge about structure of manuscript and tips for writing specific sections.⁷ A 2-day course on how to write scientific articles for students of health sciences of Spain reported satisfaction with the format and content of the course and their knowledge and skills improved in writing scientific articles.⁸ The majority of the participant Indonesian students of Training in Writing Research Article for Publication stated that the training facilitated in improving the understanding in writing research articles for publication.⁹

The main limitation of this study was that the study was purposive with a limited number of participants. Another limitation was that the study was conducted only in one institute and the data is perceptual. Hence the findings of this study cannot be generalized. Moreover, such training

workshops enhance self-efficacy of individual undergraduate medical students in writing research reports and manuscripts for publication.

CONCLUSION

Our study pinpoints how students have viewed and valued the training workshop on “Writing Research Report and Manuscript for Publication”. Their assessment on attributes of training workshop i.e. usefulness, content, relevance and delivery of content, facilitation and overall was notable. The participants of training workshop perceived their knowledge and understanding regarding “Writing Research Report”, “Guidelines for Writing Research Report”, “Structure of Research Report”, “Writing Research Manuscript for Publication” and “IMRaD Paper Structure” has enhanced significantly. It is presumed that with a little bit of efforts, organization, discipline, and persistence, students may write a good research report and manuscript for publication.

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CONFLICT OF INTEREST

None

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