

STUDENTS' CORNER REFLECTIONS

Personal reflections on basics of research workshop conducted by Journal of Pakistan Medical Association (JPMA)

Rida e Fatima, Syeda Zainab Ali



Recognizing the importance of research in a medical student's life, we were thrilled to volunteer as organizers for JPMA's research workshop for undergraduate medical students. This five-week long program, held on consecutive Saturdays, commencing from 18th May 2024, aimed to equip participants with the fundamentals of research. To maintain the quality of the workshop, the participant pool was kept limited to fourteen only. The workshop was held at the premises of PMA. Every session consisted of two classes, each an hour long with a brief lunch break in between. Besides broadening our understanding on research basics, we hoped to gain valuable leadership and communication skills through this organizing experience.

To assess their prior knowledge and understanding regarding research and to ensure that the workshop fulfilled the participant's needs, we provided the candidates with a detailed research programme and a pre

Second year students, Dow Medical College. Karachi-Pakistan.

Correspondence: Rida e Fatima. e-mail: rida.e.fatima786@gmail.com

workshop questionnaire to be filled a week prior to the commencement of sessions. The responses were shared with the facilitators who were members of the JPMA editorial board.

The workshop proved to be an enriching experience, benefitting not only the participants but also us, as volunteers. We started our learning from the basic introduction of research, with questions like; "How would you describe research in simple terms? Collecting knowledge of the past and adding something new in it". We found the first day lectures to be very thought provoking as it upskilled the participants on having a critical eye to apprehend any gaps or strengths while reading a research article. It is amazing how curiosity leads to the opening of doors of wisdom.

The subsequent sessions delved into deeper aspects of research. We gained an understanding of format, style and indications of writing a Letter to the editor (LTE). Dr. Anwar emphasized on keeping the language of LTE simple and

brief by quoting a statement by Mark Twain "If I had more time, I would have written a shorter letter".

Then we were educated on essential elements of the original research article. The instructor, Dr Anwar, explained each one in great detail. We also learned the importance of writing a good abstract, as this component determines whether the reader will read your article or not. Ma'am Fatema covered the section on case report writing. She explained the components of a Case Report and provided the necessary guidelines to be followed while writing one. She presented some sample case reports and also explained why a student or house officer cannot be the corresponding author for a case report and why a faculty member must be involved as an author. The senior member is the supervisor and should be ready to take the responsibility of the publication even after the students have graduated and left the institution. The next class on Biostatistics introduced us to different research methodologies, techniques of sample collection and estimation of sample sizes for the research, which depend on the type of study design. This session was concluded by short on paper quizzes to assess participant's grasp of concepts. It was hard to retain all the information with its details after a long day at the university. But the slides provided were a great help to recall and implement that knowledge. Besides the enthusiasm to learn kept all candidates alert.

The focus then shifted from writing, to other important aspects of research, including lectures on publication ethics and citation of references in Vancouver style. This session taught us the importance of ethical consideration and the role of the Institutional Review Board (IRB) in the research. Ma'am Fatema also shed some light on types of plagiarism, data fabrication and requirements to be qualified as an author of any research. The later session by Dr Mubeen, Head of the Department of Public Health and Vice Principal, at Hamdard University, educated the audience on how to cite proper references while using the software 'EndNote'. We particularly liked how he used participants' names as examples in his presentation for reference citation – a great way to engage and connect with the audience!

In the last session a journal club was organized by Dr Anwar Siddiqui, in which the article "Vitamin D Deficiency in Rawalpindi -Islamabad Region" was presented by us, Syeda Zainab Ali and Rida e Fatima, Students of Dow Medical College, Second year and Student Volunteers at JPMA. It

was indeed a great practical experience. It was quite nerve-wrecking for us to stand in front of our peers and present something we are new at, but after receiving audience responses and incredible positive feedback from our guests, it boosted our confidence to another level. The session was concluded by taking remarks and recommendations from participants on the whole workshop. Upon the recommendation of participants, we are looking forward to arranging more journal clubs in future, which will definitely sharpen our critical thinking skills.

Participants were required to fill out the post workshop questionnaire as well. To evaluate the effectiveness and productivity of our workshop, we carried out a comparative analysis of the pre and post workshop responses. The workshop significantly improved participants' skills in evaluating research articles (42.3% increase) and understanding methodology (58% increase). We also saw substantial improvement in case report writing (40% increase) and recognizing key article components (49% increase). Notably, there was nearly a doubling in understanding citation styles and reference management software. Overall, the workshop effectively enhanced research literacy skills.

To conclude, it was a valuable learning experience for us, as we served not only as participants. but also as organizers of this workshop. The workshop broadly covered the fundamental research concepts. All sessions were highly interactive and instructors did a great job in delivering the content. For us, the highlight of this workshop was the last session, as we led the journal club, for which we would like to deliver our special thanks to Dr. Anwar for providing us with this valuable learning opportunity. As student organizers, we were involved in communication with the candidates, data and feedback collection and logistics, which gave us in depth insight on a workshop organization. After these five sessions, we feel confident in starting our research journey and carrying out journal clubs at our institute. As organizers, we noticed a few areas of improvement. Some participants mentioned feeling overwhelmed by the amount of information presented in a short time. In future, incorporation of more engaging activities and hands on experiences would be effective in increasing the workshop efficiency and productivity.

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