Faculty Development Program in Nepalese Medical Schools: Past, Present, and Future Perspectives

Ajaya Kumar Dhakal, Ramesh Kant Adhikari

Department of Pediatrics, KIST Medical College and Teaching Hospital, Imadol, Lalitpur, Nepal.

ABSTRACT

Teaching medical students is an art that requires expertise in the core content of the subject and specialized teaching techniques. Learning to teach medical students and teachers learning from those teachings themselves is a lifelong process. Short medical teacher training courses in various specialized teaching techniques lay the foundation for a positive teaching experience that can substantially impact medical education. The Faculty Development Program is one such training course for medical teachers, designed to be an essential step toward becoming a student-centered facilitator. This article sheds light on the current status and significance of the faculty development program in Nepalese medical education. It also offers suggestions and critical strategies to improve the program in the future with available resources and to integrate it further into medical education.

Keywords: Faculty development program; medical education; Nepal; teacher training

INTRODUCTION

The Faculty Development Program (FDP) is a crucial component of the core medical education curriculum worldwide.1,2 Most experts agree that the faculty development workshop continuously improves two aspects of medical education. Firstly, it improves medical educators' knowledge of pedagogical concepts, evaluation methods, and professional competence.2 Secondly, it has a positive impact on healthcare facilities and medical institutions.² Medical teacher training courses also enhance faculty members' managerial abilities, assist in developing their leadership capacities, and improves their research skills. There is disagreement on how these courses should be planned, structured, and managed in terms of timing and content and how they should be evaluated to make adjustments for subsequent courses.² These programs also require financial planning, administrative organization, and continuous faculty commitment.² Therefore, each medical institution has tailored these programs to their needs and developed a step-by-step guide to planning, conducting, and evaluating this training.3 Many of these FDPs employ single fixed modules for training. However, previous studies have shown that single FDP modules may only apply to some areas of medicine due to the individual specifics of the subjects. Therefore, the module content should be planned and structured carefully to meet the specific learning objectives of the faculties.2

The Nepal Medical Council (NMC) has made a Medical Education Department mandatory for all medical colleges. 4,5 The guiding policy of NMC emphasizes that the person heading the department has a formal qualification in medical education and that other members have practical experience in medical education.⁵ Guidelines of NMC instruct regular teacher/faculty training on newer educational techniques such as simulation-based instruction, computer-assisted teaching, and monitoring and assessment of teaching-learning activities.⁵ A platform to learn these skills early in the medical career is FDP. Similarly, the Indian Medical Council has established standard guidelines for faculty development programs. These are delivered through designated nodal centers that have faculties trained in basic and advanced courses in medical educational technologies.6 Recently, Bhutan initiated the FDP after opening its first medical university in 2012 and expanding to the faculty of postgraduate medicine in 2014. It found that even under system constraints, teachers can develop innovative teaching methods to teach students. 7 Similar courses are also offered worldwide in various formats.²

In Nepal, there are 24 medical colleges (21 medical schools, three dental schools),8 nursing schools, and paramedical training institutes. These institutes enroll numerous students each year in undergraduate courses (MBBS, BDS), postgraduate programs (MD, MS), super specialty courses (DM, MCH), nursing science, and

Correspondence: Ajaya Kumar Dhakal, Department of Pediatrics, KIST Medical College and Teaching Hospital Imadol, Lalitpur, Nepal. Email: ajayakdhakal@ gmail.com.

paramedical courses. Faculty teaching workshops should be a fundamental part of all programs that enroll so many students to ensure effective teaching-learning.1 This article highlights the need for a faculty development program in Nepalese medical schools, its current status, its impact on undergraduate and postgraduate programs, and the practical approaches to implementing such a program.

CURRENT STATUS OF MEDICAL TEACHER TRAINING IN **NEPAL**

The Teachers Training Unit at the Institute of Medicines Family Health Project was the first formal organization in Nepal to launch the training program. The first teacher training workshop was organized in September 1982.4 The Family Health Project of the Institute of Medicine held more than 20 training programs between 1982 and 1985. With the end of the Family Health Project in 1986, the Institute of Medicine institutionalized teachers' training activities by establishing an Education Support Unit and continuing the training program. The Education Support Unit later expanded into a Medical Education Department in 1989.4 The department was further strengthened in 2009 and expanded as the National Center for Health Professions Education (NCHPE) with the mandate to provide faculty development programs and advisory services in medical education to all medical colleges in the country.9

The B. P. Koirala Institute of Health Sciences (BPKIHS) has an established medical education department that organizes and evaluates these workshops. 10

The Patan Academy of Health Sciences (PAHS), since its establishment in 2010, regularly conducts these workshops.11

The Medical colleges affiliated with Tribhuvan University (TU) and Kathmandu University (KU) are also conducting these workshops regularly in their capacity. 12-14

The duration of the faculty development course used to be two weeks in the initial phase, which was later shortened to one week.4 The duration currently varies between three-course days^{10,11} and six-course days.^{9,12,13} Recently, some teacher training courses in Nepal have been specifically designed to cover specific topics, such as problem-based learning.15 Likewise, the traditional curricula that cover broad areas of learning, such as the principle of learning, teaching-learning techniques, and assessment methods, are still in continuity. 9,12 Generally, training programs that target specific aspects, such as communication skills, assessment techniques, and

teaching-learning materials, are short and last two to three days. The educational goal and content of courses determine the appropriate duration, because of which different training times for the same module exist in many institutions. Attendee views and course feedback are always obtained regardless of training duration or content of modules. Participants in such feedback positively rated the usefulness of the course in learning audiovisual aids, lesson plans, microteaching, and evaluation processes. 10,12,13 Similarly, they perceived an increase in knowledge and applicability of training into practice. 11 Most of these studies also showed that current modules are adequate in terms of duration and content. 10,13 Many Nepalese medical professionals found such training not only helpful but also inspiring and motivating and also viewed that it changed their perspective on teaching.¹³

WHY DO NEPALESE MEDICAL SCHOOLS NEED TEACHER **TRAINING?**

A clinical mentor in medical school has multiple roles and responsibilities, such as patient care, teaching, evaluating students, conducting research, continuing their professional development.16 Each of these interconnected skills requires specific training to improve the performance of each area. Teachinglearning is a trainable trait, not an innate trait. A good clinician can be a content expert and a good researcher but still needs some form of training to be an effective facilitator of student learning. 16 The role of a teacher is to set a direction for the future, to be a role model, and to motivate learners in the mentoring process to achieve a learning goal.7

Along with setting the goal, mentors must also facilitate the identification of problems, help analyze them, explore ways of solving them, and thereby help develop clinical judgment skills in various real-life situations.7 A class may have fast learners, slow learners, some students with short attention spans, different learning patterns, and learning difficulties.7 Hence, sometimes, the help of a colleague who specializes in learning problems might be needed. Therefore, mentoring students may involve a multidisciplinary team of educators and counselors. FDP can help facilitators develop these abilities and the traits not covered in the conventional Nepalese medical curriculum. Furthermore, teachers are often required to provide learning experiences for students under limited resources, and the FDP prepares faculties to meet these unmet challenges.7

The faculty development program helps teachers share information and knowledge in an organized and systematic manner, helps reduce anxiety, and allows teachers to communicate complex topics interestingly and effectively using appropriate audiovisual aids.7 It helps faculties become better teachers who are more expressive, achieve the learning goal, appropriately assess student learning, and provides them with constructive feedback.7 Moreover, FDP helps unlearn a teaching style that could be more student-centered or student-friendly for learning. These workshops also help mentors self-assess their own's teaching style, class creativity, and student feedback that, helps teachers improve themselves.7

Postgraduate education in Nepal offers expertise in core subjects, ethics, research, communication, and leadership skills but minimal experience in teachinglearning. Despite being equipped with professional content, the new faculty of medical schools sometimes need more skills and experience in the art of mentoring. Therefore, with a greater understanding of these dynamics of medical education, training on teachinglearning experience has been added to NMC postgraduate education guidelines.¹⁷ FDP is a platform for learning or nurturing such mentoring skills. It has been agreed that integrating FDP into postgraduate education will advance medicine and medical education in a positive direction.7

WHEN TO INTRODUCE AND HOW TO CONDUCT FDP?

All faculties involved in teaching-learning in undergraduate and postgraduate education must undertake faculty development training as part of medical education.⁶ All faculty should preferably complete faculty training before joining, immediately after the selection, or shortly after entering medical school.⁶ Short refresher courses may be offered to all faculties when a new batch of MBBS students enters medical school, after the enrollment of postgraduates and the new group of students moving from basic sciences to clinical years.6 Furthermore, FDP-related medical education topics should also be introduced into continuing medical education, journal club, and seminars in addition to medical disciplines.1 Nepal Medical Council guidelines for post-graduation education also emphasize that a post-graduate should have teaching skills. Therefore, postgraduates should begin to provide a teaching-learning experience for health science residents during training.¹⁷ Therefore, FDP courses should also be conducted in postgraduate training to provide them with the necessary skills.

Facilitators should be role models who facilitate the exchange of ideas between participants-mentors and

participant-participant interactions. Ideas should flow between the two parties, and one-way communication between the mentors to participants should be avoided. Mutual respect and interaction between participants and facilitators are critical to the program's success. 13 Additionally, these workshops should be conducted in a comfortable environment conducive to learning. 13 These interactions are also attributes of an actual real classroom, and the teachers' abilities for effective teaching in real classroom situations are further consolidated with FDP experience.18

WHAT ARE THE TOPICS TO BE COVERED?

This course should cover various topics, such as the roles and responsibilities of the medical teacher, the techniques for making lesson plans, learning resources, and teaching-learning materials. 12 In addition, the principles of adult learning and methods of acquiring knowledge, skills, and attitudes, as well as different types, qualities, elements, and domains of behavioral objectives, should be discussed. 7,9,12 Different curriculum models used worldwide should be discussed to understand the teaching practice. In addition, the strengths and weaknesses of the current Nepalese medical curriculum should be addressed.19

The FDP should address the concept of student assessment and evaluation because most educators agree that students learning is influenced by assessment. 16 The objective-structured clinical examination/objectivestructured practical examination is a currently practiced method for assessing clinical and practical skills, and teachers should learn how to set up these examinations.²⁰ The importance of a clinical skills laboratory, problem-based learning integration in curriculum, and implementation in teaching²¹ should be discussed. Similarly, research and ethics in medical education should also be addressed. The concept and practice of small group discussions and microteaching are the most important sessions that should be discussed in detail.7,12 Emerging topics such as e-learning, competency-based medical education in Nepal,8 and health information management⁵ are hot topics to understand. Simulation-based teaching and assessment are increasingly used to facilitate student learning.5 Therefore, teachers should also be trained in this area. Importance topics in undergraduate and postgraduate education, such as communication skills, counseling, 5,17 understanding bias, and feedback techniques, should also be included, depending on the educational goal. Classroom management, effective use of audiovisual aids, and strategies to keep the class entertaining and engaging should be elaborated. Feedback should be an integral part of this training. Therefore, participants' expectations at the beginning and feedback to assess the achievement of the educational objective at the end of training should be integral components of the workshop. 13 As many topics are to be accommodated in the training module, a successful implementation takes much work. Therefore, many faculty development programs have developed particular "faculty development strategies" and "curricula" in their programs.1

RESOURCE PERSONS FOR FACULTY DEVELOPMENT **TRAINING**

A nationwide shortage of a qualified workforce in medical education is a significant hurdle in the conduct of regular FDP workshops. India, which has one of the world's most extensive medical education systems and one of the highest numbers of medical schools and students, has a similar situation.1 The first step to deal with such a situation is establishing a medical education unit and medical education fellowships and gradually mentoring the young faculty members who can be resource personnel.^{1,7} Researchers, educators, technicians, clinical teachers, and anyone involved in the teaching process can be resource personnel. Learning is a twoway process. Both faculty and participants are resource personnel who can share views and ideas on teachinglearning.7 Participants' experiences in teaching learning can be shared with the entire group of participants and faculty/resource persons, enhancing everyone's learning. 13 These interactions can help nurture the novel idea of the participant teacher/mentor.

FEEDBACK SYSTEMS AND INCORPORATIONS OF NEW **TOPIC**

A system should be in place to continuously analyze the feedback from participants, resource personnel, and people helping deliver training. This constructive feedback can be used to plan a future session and remove or add new sessions based on attendee needs.1 After each training, all resource persons should analyze the strength of the course and highlight-positive points, limitations, and difficulties, and correct and reinforce them in the subsequent sessions. In addition, more and more participant feedback should be analyzed, which should be fed into future courses so that such courses are attended and valued. This feedback and review of each training session should be continuous and systematic, and the process should be evaluated. Similarly, feedback on how the FDP has influenced mentoring in natural classroom settings and self-assessment of own mentoring techniques should be regularly evaluated among faculty who have attended training courses to assess the translation of training into teaching skills. 18

PERIODIC REFRESHER TRAINING FOR THE NEW **GENERATION OF TRAINER**

In Nepal, there are no formal medical education programs or degrees. Most educators have been trained abroad, and the knowledge is then passed on to young educators. Therefore, these training courses should involve young faculty as observers who have completed their teacher training so that they have the opportunity to learn from the medical educators and the participants. This opportunity helps produce a new generation of medical educators. 1 Nepalese University should also include partand full-time medical education academic programs in their curricula. A strategy adopted in India is a two-year part-time Foundation for Advancement of International Medical Education and Research (FAIMER) fellowship that supports a faculty development program. 1 A similar fellowship can be started in Nepal. Regular refresher courses should be held frequently to reinforce skills learned in the past and add newer teaching techniques. Furthermore, topics on medical education should be included in the continuing medical education program held in all medical schools, along with regular medical cases and clinical problems.1

ASSESSMENT OF FACULTIES AS A FACILITATOR

Many medical schools have faculty who have a particular interest or are trained in medical education; however, teachers' abilities to implement educational activities based on sound pedagogical principles vary greatly.4 Traditionally, clinical work, research publications, and clinical training take precedence over a teacher's performance as a teacher. 1,16 On the other hand, teacher performance as a facilitator is primarily taken for granted, and teaching competence is generally not evaluated. 16 Therefore, teaching-learning activities must be given due credit, and performance as a teacher should be part of a faculty evaluation. 1,16 A feedback loop should be in place to enhance teacher performance, and mentors who help students learn more should be rewarded.^{1,16} The exchange of teaching-learning experiences should be part of departmental and interdepartmental discussions, grand rounds, and journal clubs. 1,16 Universities should play an essential role in recognizing publications related to medical education and innovative teaching techniques. The medical education articles should get equal credits similar to the original articles published on clinical subjects for faculty promotion. Furthermore, medical teachers' contributions to teaching should be recognized with an academic promotion or academic leadership.1

RECOMMENDATIONS FOR THE FUTURE

The authors recommend adding and strengthening existing faculty development training for postgraduate students, which will help create a new generation of student-centered facilitators and resource personnel for the faculty development program. All medical schools and universities should require faculty to complete this training as soon as they enroll in medical school. The Nepal Medical Council should include faculty development training in continuous professional development courses for the medical professionals involved in undergraduate and postgraduate supervision. The medical education department of the medical college is to be further strengthened. Additionally, there should be a governing board responsible for developing and standardizing the curriculum of these faculty development programs. Advanced courses in medical education emphasizing faculty development programs should be initiated to strengthen the program further. Training for master trainers for programs should be initiated to sustain the program and to add quality to existing workshops. Furthermore, the university should include full and part-time academic degrees/fellowship programs to strengthen Nepal's medical education.

CONCLUSIONS

The faculty development program facilitates the achievement of learning objectives through systematic and organized teaching approaches with the effective use of audiovisual aids. Therefore, these workshops are the first step to becoming a student-centered facilitator.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

ACKNOWLEDGEMENTS

The authors would like to acknowledge Dr. Divya KC for her help reviewing the manuscript.

REFERENCES

- 1. Bhatnagar K, Srivastava K, Singh A. Is faculty development critical to enhance teaching effectiveness? Ind Psychiatry 2010;19(2):138-41. Epub 2010/07/01. doi: 10.4103/0972-6748.90349
- 2. Bilal, Guraya SY, Chen S. The impact and effectiveness of faculty development program in fostering the faculty's knowledge, skills, and professional competence: A systematic review and meta-analysis. Saudi Journal of Biological Sciences. 2019;26(4):688-97. doi: 10.1016/j.

sjbs.2017.10.024

- Childs E, Remein CD, Bhasin RM, Harris AC, Day A, Sullivan LM, et al. How to Launch and Continually Enhance an Effective Medical Campus Faculty Development Program: Steps for Implementation and Lessons Learned. J Healthc Leadersh. 2021;13:147-56. Epub 2021/07/16. doi: 10.2147/jhl.S308608
- Adhikari RK. Evolution of Medical Education in Nepal: Personal Reminiscences. 1st National Conference of Association of Health Professions Educationists of Nepal (AHPEN); December 2-4, 2017; Kathmandu, Nepal: AHPEN. p.7-10.
- Nepal Medical Council. Accreditation Standards for the MBBS (Bachelor of Medicine and Bachelor of Surgery) Program-2017.2017 [cited 2022 Aug 15]:[1-34 pp.] [Download PDF]
- Zodpey S, Sharma A, Zahiruddin QS, Gaidhane A, Shrikhande S. Faculty development programs for medical teachers in India. J Adv Med Educ Prof. 2016;4(2):97-101.[Article]
- Tenzin K, Dorji T, Choeda T, Pongpirul K. Impact of faculty development programme on self-efficacy, competency and attitude towards medical education in Bhutan: a mixedmethods study. BMC Med Educ. 2019;19(1):468. Epub 2019/12/23. doi: 10.1186/s12909-019-1904-4
- Shah JN, Shah J, Shah J, Shrestha A, Pradhan NMS. Postgraduate medical education: The history and development of competency-based training program in Nepal. Journal of Patan Academy of Health Sciences. 2021;8(1):102-12.doi: 10.3126/jpahs.v8i1.36243
- National Centre for Health Professions Education (NCHPE). TU Institute of Medicine; 2017 [cited 2022 Aug 22]. Available from: https://www.nchped.org.np/index. php/faculty-development-program/
- 10. Baral N, Paudel BH, Das BK, Aryal M, Das BP, Jha N, et al. An evaluation of training of teachers in medical education in four medical schools of Nepal. Nepal Med Coll J. 2007;9(3):157-61. [Download PDF]
- 11. Joshi M, Shrestha I, Bhandary S. Evaluation of core faculty development workshop: experience from Patan Academy of Health Sciences, Nepal. Journal of Patan Academy of Health Sciences. 2016;3(2):36-40. doi: 10.3126/jpahs. v3i2.20275
- 12. Piryani RM, Dhungana GP, Piryani S, Sharma Neupane M. Evaluation of teachers training workshop at Kirkpatrick level 1 using retro-pre questionnaire. Adv Med Educ Pract. 2018;9:453-7. Epub 2018/06/29. doi: 10.2147/amep. S154166

- 13. Piryani RM, Piryani S, Khanal R, Chaudhary N, Sahi A, Karn A, et al. Perception of the Faculty Participants Participated in First Teachers' Training Workshop Conducted at Universal College of Medical Sciences Bhairahawa Nepal. Biomedical Journal of Scientific & Technical Research. 2019;21(2):15804-7. doi: 10.26717/ BISTR.2019.21.003587
- 14. Joshi S, Pradhan A, Dixit H. Faculty opinion survey following attendance to teacher training workshop in Kathmandu Medical College. Kathmandu Univ Med J (KUMJ). 2004;2(3):244-51.[Article]
- 15. Joshi M, Shrestha I, Bhandary S. Training tutors for implementing problem-based learning at a private medical college of Nepal. Journal of Patan Academy of Health Sciences. 2015;2(2):7-12. doi: 10.3126/jpahs.v2i2.20323
- 16. Sood R, Adkoli B. Medical education in India-problems and prospects. J Indian Acad Clin Med. 2000;1(3):210-2.
- 17. Nepal Medical Council. Regulations for Postgraduate Medical Education (MD/MS)Programs-2017.2017 [cited 2022 November 19]:[9-12 pp.]. [Download PDF]

- 18. Baral N, Nepal AK, Paudel BH, Lamsal M. Effect of Teachers Training Workshop Outcomes on Real Classroom Situations of Undergraduate Medical Students. Kathmandu Univ Med J (KUMJ). 2015;13(50):162-6. Epub 2015/12/09. doi: 10.3126/kumj.v13i2.16791
- 19. Gautam N, Dhungana R, Gyawali S, Dhakal S, Pradhan PMS. Perception of Medical Students Regarding Tribhuvan University-Institute of Medicine MBBS Curriculum and Teaching Learning Methods in Nepal. Kathmandu Univ Med J. 2022;20(78):229-34.doi: 10.3126/kumj. v20i2.51404
- 20. Zafar M, Yaqinuddin A, Ikram F, Ganguly P. Practical Examinations OSPE, OSCE and SPOT. In: Ganguly P, editor. Education in Anatomical Sciences. New York: Nova Publishers; 2013. p. 223-37. [Google Scholar]
- 21. Bhandary S. Problem-based learning curriculum and process assessment system for the undergraduate competency-based medical education: Experiences from Nepal. Archives of Medicine and Health Sciences. 2021;9(2):331.10.4103/amhs.amhs 282 21