



Net Consensus Statement

How to improve dermatology teaching and learning at the postgraduate level: Recommendations by a faculty panel of Kerala state branch of the Indian Association of Dermatologists, Venereologists, and Leprologists

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ABSTRACT

The perception about dermatology as a specialty has considerably changed over time, and this change has to be reflected in post-graduate (PG) curriculum and teaching methods. To keep up with the changing times and advancements in medical education, a four-member committee was constituted by IADV L (Indian Association of Dermatologists, Venereologists and Leprologists) Kerala to propose modifications in the existing PG teaching program. The enclave identified five core areas in PG teaching of dermatology and suggested changes in the existing model. Academics and teaching-learning (TL) methods, research and publishing, quality of life of PG students, assessment, and structural changes in PG departments were the areas where suggestions were made. A holistic approach to dermatology teaching incorporating newer TL methods was proposed. The importance of better capacity building and provision of opportunities for research was emphasized. The need to modify the prevailing methods of assessment was identified. It was also acknowledged that amendments need to be made at the faculty level too, and propositions were made in that aspect as well. It would require a coordinated effort among the universities, institutions, teachers, and professional organization to further fine-tune and implement these suggestions.

Keywords: Kerala, Dermatology, Teaching, Postgraduate, Recommendations

INTRODUCTION

As a specialty, dermatology has been widening its scope over the past few decades. The methods and dynamics of teaching-learning (TL) in general have also changed in the country in recent years. Such changes should be reflected in the post-graduate (PG) curriculum and teaching methods as well. Although discussions in public forums about periodic modifications in curriculum are common in developed countries, such discussions are limited to universities in India.^[1-6] As a response to this, the Kerala branch of the Indian Association of Dermatologists, Venereologists, and Leprologists (IADV L-K) planned to collect opinions from the dermatology teaching faculty across the state, and formulate proposals for modifications in the current curriculum and training in dermatology at PG level. We aimed to propose recommendations to improve the standard of PG training in dermatology, venereology, and leprology (DVL) and other allied fields of knowledge. This document discusses the issues to be addressed, the necessary actions to address them, and the appropriate agencies to effect these modifications.

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Objective

The objective of the study was to draft an advocacy document including recommendations to improve the standard of PG training in DVL in Kerala state.

MATERIALS AND METHODS

A four-member panel (including a coordinator) was constituted by the state president of IADVL-K for this purpose. All four members were actively involved in teaching PG students in DVL. Originally, there were plans to conduct focus group discussions, key informant interviews, and conclaves. However, due to the unexpected coronavirus disease 2019 (COVID-19) pandemic, we could not implement this original plan. Instead, the panel prepared a draft document by internal consultations, which was circulated among selected experts. The draft document was modified incorporating suggestions received from these experts. Later, the draft was circulated among all members of IADVL-K, and suggestions were invited. The final document included suggestions received from them.

RESULTS

The panel identified six core areas in PG TL of dermatology, and suggested the following changes in the existing model.

Academics and TL methods

TL methods

Small group teaching methods as currently followed in the outpatient department (OPD) and wards were identified to be very effective. Problem-based learning may be further strengthened. For effective implementation of this, the faculty-student ratio may also have to be improved. There is a need to incorporate dermoscopy and dermatosurgery in teaching sessions, as these fields are gaining more importance now.

Newer methods of learning, including e-learning and other digital platforms, can be explored. Both synchronous and asynchronous methods of e-learning could be developed and incorporated into PG teaching. The COVID pandemic presents us an opportunity to incorporate online teaching in PG training. Virtual platforms with interactive teaching can be useful for comprehensive e-learning.^[7,8] Webinars and digital repositories can be used as resources.

Although PG students are already considered as undergraduate (UG) teachers by National Medical Commission (NMC), more supervision and appropriate guidance by faculty would improve their teaching skills.

Procedural and basic laboratory skills training

In tune with the changing profile of the specialty, PG students should receive adequate training in cosmetology, lasers, and dermatosurgery. This can be achieved by ensuring sufficient facilities in the teaching departments, as well as by encouraging the students to attend focused workshops and continuing medical education (CME) programs [Table 1]. Such topics should be included in the curriculum. The minimum standard requirements in these topics should be formulated to standardize TL in these areas.

The group felt that it is necessary to specify the timing of such training, and the total time to be allotted to impart procedural skills, to bring about more uniformity in training among various institutions in the state and the country. Relatively simple procedures should be introduced in the first year of training, while those that require deeper knowledge and greater skills should be taught later. Learning of skills can be divided into different phases – observing, assisting, and performing. A minimum number of procedures should be observed and assisted before the student becomes eligible to perform them.

Collaboration with other departments

Training in basic life support, medical emergencies, preventive and rehabilitative measures, fluid management, management of common medical co-morbidities, and handling of pandemic situations should be incorporated in the curriculum. As suggested by NMC, dermatology PG students should be posted in the departments of general medicine/emergency medicine for at least 2–4 weeks to train them in these subjects.^[1] Orientation programs and teaching sessions involving other non-clinical and clinical departments such as microbiology, pathology, plastic surgery, physical medicine and rehabilitation and rheumatology would help better training and skill building in these areas. Appropriate phases of training in which these are to be carried out, should be identified.

Efforts to address attitude, ethics, and communication (AETCOM) skills

The panel felt that as suggested by NMC in the new syllabus, there is a need to focus more on the improvement of physician behavior, empathy, communication skills, and leadership skills during the training. This could be done by incorporating role-plays, simulations, feedback, and reflection in the TL methods, especially in the early phases of training. Close supervision of the students by faculty members and by senior residents, is important. It was felt that such close mentoring and supervision, would improve quality of clinical skills and patient care. PG students should be trained to face uncomfortable situations which arise

Table 1: Recommendations by a faculty panel of IADVL-K to improve academics and teaching learning methods in dermatology at the PG level.

| No. | Issue to be addressed | Suggested actions | Remarks, if any | Agency for implementation |
|-----|---|--|---|--|
| 1. | Better physician behavior | To introduce role plays, simulation, feedback and reflection in teaching learning method Train to face real uncomfortable high-risk situation | These should help to improve analytical thinking and judgment and improve confidence | University, Curriculum implementation committee, PG teachers |
| 2. | Improve communication skills | Work as a team Introduce appropriate AETCOM modules for PG | | University, Curriculum implementation committee, PG teachers |
| 3. | Improve empathy and patient relationship | Introduce appropriate AETCOM modules for PG | | PG Departments |
| 4. | Leadership and management skills | Introduce appropriate AETCOM modules for PG | | University, Curriculum implementation committee, PG teachers |
| 5. | Sensitize regarding medico-legal aspects and importance of proper documentation and maintenance of medical records | Can be included as a part of orientation program | | University, Curriculum implementation committee, PG teachers |
| 6. | Greater awareness and involvement in national health programs | Integration with NHM, DHS, Department of community medicine | | University, Curriculum implementation committee, PG teachers |
| 7. | Training in basic life support, medical emergencies, preventive and rehabilitative measures, emergency care, fluid management, common medical co-morbidities, handling a pandemic situation | Basic introductory course in PG; Posting in General medicine Casualty and ICU | These should be included in curriculum in a structured manner with definition of competencies | University, Curriculum implementation committee, PG teachers |
| 8. | Training in the use of lasers, cosmetology and dermatosurgery procedures | Facilities for training should be made available in each institution Encourage participation in focused workshops and CMEs | | PG Teachers and Departments, IADVL K |
| 9. | Online teaching | Alteration of present teaching modules to incorporate online-teaching learning methods | More virtual learning Case scenarios rather than actual patients for case discussions | Departments, universities |

AETCOM: Attitude, ethics, and communication, PG: Postgraduate, NHM: National health mission, CME: Continuing medical education, ICU: Intensive care unit, DHS: Directorate of health services, IADVL-K: Kerala branch of the Indian Association of Dermatologists, Venereologists, and Leprologists

during the practice. This could be done by exposing them to such situations, under supervision. Overall restructuring of the training program in tune with AETCOM modules may be done by the university, and implemented by the respective departments.

Exposure to community dermatology

Participation of PG students in medical camps and school health programs should be encouraged. Exposure to the activities of national health mission (NHM) would be helpful for PG students. University, curriculum committees, and individual departments may take initiative for this. Educating the public and creating awareness

about skin diseases can be included in such camps. This will also help the PGs to get exposed to the real issues in the community. The district residency program for junior residents, recently introduced by NMC is a welcome step in this regard.^[1,9]

Training in medico-legal aspects

Since dermatology is a specialty which deals with topics with more medico legal implications such as drug reactions, cosmetology, and dermatosurgery, awareness regarding medicolegal aspects should be inculcated among the students. Modules intended for the same should be included in the curriculum.

Research and publishing

There is an urgent need to improve the research environment in PG departments and efforts for capacity building in research. This can be done by including research training in the syllabus, making more research funding available, and by creating research topic banks at the university or college level. There should be sufficient exposure to courses on research methodology, data collection, data handling, and statistical analysis. The basic course in biomedical research by the Indian Council of Medical Research has presently been made mandatory for post-graduates, which will be helpful in these aspects. There should be active efforts to encourage residents to publish their research works (PG thesis) during the training period itself as permitted by Kerala University of Health Sciences.

It is currently mandatory for each student to present a poster, make an oral presentation, and to have a study that should be sent for/accepted for publication to be eligible to appear for the final examination. This has to be supported by the PG departments.

There is a need to increase awareness regarding support to research including funding by agencies such as the Indian Council of Medical Research. IADVL itself could introduce more steps to promote research among PGs. Research methodology training, and mentorship started at UG level can be carried forward to the PG training period. Possibilities for interdepartmental collaborations should be explored to improve research. More rewards for research may be considered [Table 2].

Quality of life of PG students

Providing emotional support to PGs was identified as a necessity by the panel. Having a functional mentorship program in the department would aid in this aspect. Considering the limited exposure to the subject of DVL during the UG period, an orientation programme for at least one week, for newly joining PG students was proposed [Table 3]. This may include observation of ward rounds, OPD and dermatosurgery, and cosmetology procedures.

Assessment

The panel suggested to introduce 360° assessment for the PG students – receiving inputs from teachers, other residents, nursing staff, administrators, and patients. Logbooks and daily activity books should be regularly maintained and verified by the faculty at least once a week [Table 4]. Portfolios including reflective assignments may be introduced. It would be good if the university introduces a model format for logbooks which may be uniformly followed in all colleges.

Table 2: Recommendations by a faculty panel of IADVL-K to improve research and publishing in dermatology at the PG level.

| No. | Issue to be addressed | Suggested actions | Remarks, if any | Agency for implementation |
|-----|---|---|---------------------------------------|----------------------------|
| 1. | More support in selecting thesis topics | Research topic banks, Panel of guides | To improve quality of research output | University, Departments |
| 2. | Financial support | SBMR support subject to regulations, institutional funding, scholarships | | College managements, DME |
| 3. | Develop teaching skills | Supervised UG and paramedical teaching and evaluation | | PG teachers and department |
| 4. | Encourage research | Research methodology training Training in data collection and entry Statistical analysis Encourage publishing in indexed journals during residency | | PG' Departments |

PG: Postgraduate, UG: Undergraduate, DME: Directorate of medical education, SBMR: State board of medical research, IADVL-K: Kerala branch of the Indian Association of Dermatologists, Venereologists, and Leprologists

A comprehensive modification of the evaluation system was suggested. The recommendations included greater use of objective structured clinical examination and multiple choice questions in examinations. Providing more importance to longitudinal, workplace and competency-based assessment of PG students than resorting to a single summative assessment was also suggested. Online exams can be considered for formative assessment of PG students.^[7,8] Co-ordination among the university, government and the institutions are needed to implement these changes.

Infrastructural and human resource support in PG departments

It was proposed that education and academics should be given as much priority as patient care in PG departments. This can

Table 3: Recommendations by a faculty panel of IADVL-K to improve the quality of life of the PGs in dermatology.

| No. | Issue to be addressed | Suggested actions | Remarks, if any | Agency for implementation |
|-----|--|--|---|-----------------------------------|
| 1. | Emotional support and behavioral stability | Mentorship program with faculty/ senior PGs/ senior residents may be helpful | This should be addressed in a multi-pronged fashion | PG Departments |
| 2. | Easy induction to specialty | One week orientation | Classes by faculty Observation of ward rounds, conduct of OPD, procedures | Colleges, University, Departments |

PG: Postgraduate, IADVL-K: Kerala branch of the Indian Association of Dermatologists, Venereologists, and Leprologists; OPD: Outpatient department

Table 4: Recommendations by a faculty panel of IADVL-K for comprehensive assessment of postgraduates in dermatology.

| No. | Issue to be addressed | Suggested actions | Remarks, if any | Agency to be addressed |
|-----|------------------------------------|--|---|------------------------|
| 1. | Longitudinal work place assessment | Strict maintenance of log book and daily activity book to be assessed weekly | Uniform format of log book in all colleges Competency based assessment to be emphasized | University, Department |
| 2. | Online exams | Curriculum dictating conductance of online exams | Modification of present exam patterns and marking systems. | University |

IADVL-K: Kerala branch of the Indian Association of Dermatologists, Venereologists, and Leprologists

be achieved by increasing the PG teacher to student ratio and improving physical infrastructure in the departments. An active involvement by the university and NMC, by stipulating the minimum requirements, is necessary to realize these objectives [Table 5]. It was also suggested to provide better clerical support to departments so that PG students and

teachers are relieved from clerical work, thereby providing more time for TL activities. Improved access to journals is an important and immediate need, which could be achieved by a concerted effort of IADVL, and the managements of the institutions.

Capacity building of the faculty

Faculty development in medical education deals with the sensitization and training of teachers in the newer developments in the specialty including the TL methods. This, in turn, would contribute to improve the competence of the next generation of health professionals.^[6] Medical education units of the institutions may be requested to take a lead in the capacity building of teachers. In-service training of teachers should be made mandatory. IADVL-K and its academy can also contribute to capacity building of the teachers. The possibilities of e-learning courses for capacity building of faculty could be explored further.

More interdepartmental exposure would improve the quality of the faculty. It was also suggested to maintain faculty portfolios with the reflection component. Introducing sabbatical leave to faculty would expose them to other centers of excellence – national and abroad – without causing break in service. Research by faculty should be given more incentives. Access to more research funding and an institutional research support system may aid in this aspect. More institutional support for faculty research through state board of medical research and funding agencies can be helpful.

DISCUSSION

This document attempts to compile the recommendations by the dermatology academic community of Kerala to improve the PG teaching of dermatology in the state.

It is the primary responsibility of the university to modify the existing TL methods, though the academic community also has an important role in it. There is a need to modify the TL methods according to the changing needs and emerging trends in educational technology. Instructions from university to all teaching institutions in the state regarding a university-mandated, identical teaching schedule, can be the first step in the change. Modifying the assessment methods has become imperative to meet the challenges of the present age. Integrating more research-oriented modules into the curriculum, and providing more structured guidance to perform as well as publish research are other areas where the university can contribute.

While deciding the staff pattern and infrastructure, the managements of institutions – government and private alike – should consider not only the NMC stipulated minimum standards for recognition of PG courses, but also the clinical

Table 5: Recommendations by a faculty panel of IADVL-K to improve the infrastructure and human resource in the postgraduate departments of dermatology.

| No. | Issue to be addressed | Suggested actions | Remarks, if any | Agency for implementation |
|-----|--|---|-----------------------------------|----------------------------------|
| 1. | Education and academics should be given equal priority as patient care | Have better PG teacher to PG student ratio Improvements in physical infrastructure | Efficient redistribution of staff | NMC, Government, University |
| 2. | Improve online platform teaching methods in the current scenario | More efficient connectivity More online interactive sessions like panel discussions More efficient teleconsultations and management | | Medical colleges, PG departments |

PG: Postgraduate, NMC: National medical commission, IADVL-K: Kerala branch of the Indian Association of Dermatologists, Venereologists, and Leprologists

and teaching requirements of the departments. Provision of adequate infrastructure is the prime responsibility of the management and should be monitored and ensured by the university and the government. Training of the students in basic life support and management of other emergencies in collaboration with other departments would equip them better to deal with complicated diseases. Workshops for the same may be organized at the institutional level. Co-ordination between different institutions and departments must be enhanced to provide PGs greater exposure to specialized areas of knowledge which may be available only in some institutions.

The last links in the implementation of the proposed modifications are the individual PG departments. It is the responsibility of the departments to ensure that the students are trained at the highest possible standards and that they derive maximum benefits out of the changes being implemented.

Our professional organization, IADVL, is already taking significant steps to improve PG teaching, such as online seminars and case presentations under the guidance of eminent faculty from all over the country. These have become more frequent during the COVID pandemic. Such events provide unprecedented opportunities to the students to get a broader view of the subject. They are now exposed to a larger pool of teachers. The research grants and scholarships endorsed by IADVL also help the PG students to improve the standard of their training.

The present document has some limitations. The raging pandemic prevented any physical meetings, and the discussions were confined to electronic platforms. Another limitation was that there were no PG students, who are important stake holders in the subject, in the panel.

CONCLUSION

This document is a consensus document on the proposed changes in the post graduate training in dermatology venerology and Leprology drafted by IADVL-K.

We hope, this document shall act as a kindling to ignite changes for the better, and to improve the level of training received by future generations of PG students in dermatology. More suggestions from experts all over the country, and judicious adoption of methods and processes from world class teaching institutions elsewhere, could improve the standards of our PG curriculum and TL methods, further.

Declaration of patient consent

Not required as there are no patients in this article.

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Nil.

Conflicts of interest

Dr. Neelakandhan Asokan was President of IADVL-K when this project was implemented. Dr. S Rahima, Dr. Kidangazhiathmana Ajithkumar and Dr. Neelakandhan Asokan are on the editorial board of the Journal.

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