

Short communication

Current status of dermatology residency training in Saudi Arabia: trainees' perspectives

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الوضع الراهن للتدريب في الإقامة في طب الجلد في المملكة العربية السعودية: وجهة نظر المتدربين
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الخلاصة: أجرى الباحث مسحاً مستعرضاً للتعرف على الجوانب المختلفة للإقامة في برامج طب الجلد في المملكة العربية السعودية من وجهة نظر المقيمين، وقد وزع على المقيمين استبيانات تُستكمل ذاتياً حول الخطط المستقبلية والأنشطة الأكاديمية والإمتحانات والتدريب وعبء العمل والإجراءات الجراحية وحقوق المقيمين ورضاهم. وبلغ عدد المقيمين 27 مقيماً يتوزعون في جميع مراكز التدريب في ما بين شهري آذار/مارس وأيار/مايو 2004، وأجاب 22 مقيماً منهم (81%). ودل المسح على أن 50% من المقيمين غير راضيين عن تدريبهم وهم يشعرون بأنهم يدرّبون تدريباً قاصراً؛ وكانت خبرات أداء بعض الإجراءات أقل لدى المقيمين مما كان لدى دراسة مشابهة أجريت في الولايات المتحدة الأمريكية حيث لم يتلق 50% من المقيمين أي تدريب جراحي في طب الجلد. أضف إلى ذلك أن 36% من المقيمين قد تلقوا إهانات شفوية خلال التدريب، وقد نسبوا ربع هذه الإساءات إلى الاستشاريين.

ABSTRACT A cross-sectional survey was conducted to look at different aspects of dermatology residency programmes in Saudi Arabia from the residents' perspective. Self-administered questionnaires about future plans, academic activities, examinations, training, workload, surgical procedures, residents' rights and satisfaction were distributed to all 27 residents in all training centres during March–May 2004; 22 (81%) responded. The survey found that 50% of residents were not satisfied with their training and felt they were inadequately trained. Experience of performing certain procedures was much less than for residents in a similar study in the United States of America, and 50% of residents had not received any dermatologic surgery training. Moreover, 36% of residents had been verbally humiliated during their training.

Situation actuelle de la formation des internes en dermatologie en Arabie saoudite : point de vue des intéressés

RÉSUMÉ Une étude transversale a été réalisée pour étudier différents aspects des programmes de formation des internes en dermatologie en Arabie saoudite du point de vue des intéressés. Des questionnaires à remplir soi-même sur les projets d'avenir, les activités universitaires, les examens, la formation, la charge de travail, les actes chirurgicaux, les droits et la satisfaction des internes ont été distribués aux 27 internes répartis sur l'ensemble des centres de formation pendant la période mars-mai 2004 ; 22 (81 %) y ont répondu. L'enquête a révélé que 50 % des internes n'étaient pas satisfaits de leur formation et estimaient ne pas être suffisamment formés. Ils avaient une expérience de la réalisation de certaines interventions nettement moins importante que les internes suivant un programme d'études similaire aux États-Unis d'Amérique et 50 % d'entre eux n'avaient reçu aucune formation à la chirurgie dermatologique. De plus, 36 % de ces internes avaient fait l'objet d'humiliations verbales pendant leur formation.

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Introduction

Dermatology residency training in Saudi Arabia is relatively recent, having only started a decade ago. It comprises 4 years after completion of an internship. The 1st year consists of 6 months internal medicine, 3 months paediatrics and 3 months clinical elective (usually 2 months plastic surgery and 1 month laboratory medicine). The remaining 3 years are clinical dermatology, including inpatient dermatology, general outpatient dermatology, phototherapy and recently, in some centres, laser surgery rotations. Didactic sessions in dermatopathology are given on a regular basis. Residents become promoted through end-of-rotation evaluations with annual promotion examinations. After successful completion of training, the candidate will be eligible to sit for the final examinations (written, clinical and oral). Candidates passing the final board examination are awarded the certificate of the Saudi Board of Dermatology [1].

The rapidly increasing pace of advances in knowledge and practice in dermatology has resulted in the recent expansion of subspecialties in this field. As a consequence, training programmes are not always able to maintain a standardized level. Monitoring of training is crucial to guarantee that trainees achieve an adequate level of competence [2]. For these reasons it is very important to evaluate the quality of dermatology training and to establish whether programmes differ from one country to another or, indeed, within the same country.

This study aimed to explore the perceptions of dermatology residents in Saudi Arabia about various aspects of their training.

Methods

The author designed a questionnaire in collaboration with another physician at King Saud University who has significant experi-

ence in this field (Dr A. Awatif). The self-administered questionnaire in English was composed of 99 questions. All but a few questions were closed-ended with multiple-choice answers. The aim was to explore what residents thought about their training from all aspects. The issues included were personal data, future plans, academic activities, examinations, training, workload, surgical procedures, residents' rights and satisfaction. The final question was open-ended for the residents' comments and suggestions. The questionnaire was pilot tested on 4 residents at different levels to check for comprehension before the final version was produced.

The questionnaire was distributed to all of the 27 residents in training in all the training centres in Saudi Arabia from March 2004 to May 2004. First-year residents were not included because they had not started clinical dermatology training. The distribution and collection of the questionnaire was by hand if possible (for 20 residents during a national conference); for the remaining residents the questionnaire was sent and returned by mail.

Responses to the survey items were tabulated with *SPSS* software, version 10.01. Quantifiable items without a response were assigned a value of 0. The percentages of "Yes" or "No" responses were also obtained, with blank responses regarded as "No". Written responses to quantifiable answers were assigned to the nearest survey choice. Other non-quantifiable items without responses were regarded as "Missing".

Results

A total of 22 out of 27 questionnaires were returned (81%), representing all 4 dermatology residency training centres in the country; 7 residents were from the 2nd year, 7 from the 3rd year and 8 from the 4th year.

Future plans

Almost all the residents (91%) expected to maintain some involvement in academic dermatology after graduation and were planning for subspecialty fellowship (91%), including 37% in dermatologic and cosmetic surgery and 14% in laser surgery. The remainder indicated plans for paediatric dermatology and dermatopathology; none indicated plans to specialize in photodermatology, basic research, allergy/contact dermatitis or dermatologic pharmacology.

Academic activities

The 3 most commonly used dermatology textbooks were: "Fitzpatrick's" [3] (59% of residents), "Andrew's" (18%) [4] and "Rook's" (1 resident) [5]; the remaining residents used other textbooks. A high proportion of consultants (81%) supervised book review sessions.

All of the residents participated in a journal club as part of their training, either weekly (55%) or biweekly (45%), and 95% believed that these were quite beneficial. Consultants participated in discussions in 91% of journal clubs. The median number of journals reviewed was 3 per month. The most commonly reviewed journals were *Journal of the American Academy of Dermatology* (19%), followed by *Archives of dermatology*, *British journal of dermatology*, and *International journal of dermatology* (4.5% for each). More than 28% were reviewing a combination of *British journal of dermatology*, *Pediatric dermatology*, *Journal of the American Academy of Dermatology*, *Archives of dermatology* and *International journal of dermatology*.

The mean time allocated for basic science teaching per month was 2.6 hours; 18% of residents were given 6 hours per month while 36% were given 4 hours. More than one-third of the residents (36%) agreed that the amount of basic sciences teaching

was too much. The residents' response to whether the basic sciences lectures were related to clinical applications were as follows: always 9%, sometimes 55%, rarely 27% and never 9%.

Examinations and publications

Half of the residents believed that the written examinations were mainly concerned with simple information recall rather than clinical judgement. The mean number of mock clinical examinations taken per year was 0.9; 55% of residents never had any mock examinations during such training.

Most residents (82%) were not required by their programmes to publish an article or case report.

Workload

Workload varied from 5.0 to 10.5 hours per day with a mean of 6.9 hours per day. The number of patients admitted per month varied from 1 to 15 with a mean of 5.7 [standard deviation (SD) 3.4]. The number of half-day clinics run by residents varied from 2 to 6 per week with a mean of 3.7 (SD 1.8). The on-call days per month varied from 4 to 20 with a mean of 8.7 (SD 4.5). The number of hospitals in which residents were getting training varied from 3 to 6 with a mean of 4.3 (SD 1.0).

The number of hours during work time (08:00 to 17:00 hours) set aside from clinical responsibilities and academic activities (i.e. free slots) for self-education ranged from 0 (for 27% of residents) to 8 hours (14% of residents) with a mean of 3.5 hours per week.

Training

More than 81% of residents agreed that not every consultant should be given the chance to train residents. A total of 70% of residents believed that they received inadequate supervision by their training consultants.

While 95% of residents agreed that evaluation of consultants by residents is essential, 64% had never had this chance. All of the residents agreed that it is essential to let the resident see and discuss his/her evaluation to get feedback. However, 40% of those who had received evaluations had never had the chance to discuss their evaluations with their training consultant. Furthermore, 86% agreed that by the end of each training year, residents should vote on whether each of the current training consultants might continue training residents for the coming year or not.

In the questions about residents' rights 36% stated that they had been humiliated verbally by training consultants; a quarter of consultants were accused of such behaviour.

A majority of residents had never been sponsored by their departments to attend a dermatology conference, either locally or abroad (75% and 90% respectively) and 95% and 100% had never been sponsored by drug companies to attend a dermatology conference either locally or abroad respectively.

More than half of the residents (55%) felt that the amount of surgical training they were getting was not enough, while 45% felt that they were getting nothing in this particular field. The overall percentage of Saudi residents performing at least 1 procedure per year was much less than their American counterparts in the study done by Webb et al. in the United States of America [6] (Table 1).

Overall satisfaction

While 50% of residents were satisfied with their training, the other 50% were not, however none had considered quitting. All were happy being in a dermatology residency training programme and 95% would choose dermatology again if they were given the chance.

Half of the residents thought that dermatology training in Saudi Arabia is inferior to training abroad. They believed so because they thought that training abroad comprised more dermatologic surgery training, greater respect for residents' rights, more facilities, good encouragement and support for research.

In the final question residents were asked to give their comments and suggestions regarding their training. Most of them asked for more laser and dermatologic surgery training, frequent mock in-training examinations, more supervision by training consultants and more respect for residents' rights.

Discussion

This is the first report about dermatology residency training in Saudi Arabia. As in most surveys the response was incomplete (81% response rate). However, it has been possible to reach some preliminary conclusions.

Due to the small sample (22 residents), it was not possible to statistically correlate the satisfaction or dissatisfaction with different aspects of training.

However, our survey gives a broad idea about residents' satisfaction and indicates elements of dermatology training programmes that require modification. A good percentage of residents (91%) expected to maintain some involvement in academic dermatology after their graduation, which predicts a bright future for our training programmes. This is higher than the percentage of American residents who expected to maintain some involvement in academic dermatology (24%) [6].

Also, 91% of our residents were planning for subspecialty fellowship. The favoured subspecialties were dermatologic and cosmetic surgery (37%) and laser sur-

Table 1 Percentage of dermatology residents in Saudi Arabia performing at least 1 procedure per year in comparison with their American counterparts (Source: Webb et al. [4])

Procedure	Saudi residents (n = 22)		American residents (n = 248)	
	As surgeon	As assistant	As surgeon	As assistant
	%	%	%	%
Simple excision	50	50	92	48
Flaps	0	10	36	42
Grafts	0	24	30	33
Mohs surgery	0	10	19	44
Sclerotherapy	0	10	50	23
Chemical peel	10	28	46	24
Hair transplant	0	5	6	12
Laser surgery	36	68	40	36
Liposuction	0	0	2	6
Filler injection	0	0	9	7
Nail surgery	5	2	–	–

– = not mentioned.

gery (14%). This contrasted with American residents; only 24% indicated plans for fellowship training, 35% of them for Mohs micrographic surgery and 20% for dermatopathology, with the remainder for other subspecialties [6].

The most commonly used textbook was Fitzpatrick. This is the same as the American study [6]. All of our residents participated in a journal club, while 97% of the American residents did so. The median number of journals reviewed in our study was 3 per month while in the American study it was 3–4.

Basic science lectures should be more clinically oriented as only 9% of residents believed that those lectures were always related to clinical applications. Some residents (36%) believed that the number of basic science lectures they were getting was too great. Integration of basic science and clinical knowledge should be the aim. The

desired goal of modern medical education is not simply to learn basic science in isolation, but to apply it [7]. According to adult learning theory, the learning process should closely relate to understanding and solving real-life problems [8].

The majority of our residents (82%) were not required by their programmes to publish a paper, while 76% of American residents were not required to do so [6]. Written examinations should focus more on clinical judgment rather than simple information recall, but 50% of our residents believed that they were mainly concerned with simple information recall. Similarly, in the USA the main frustration among residents was not the level of difficulty *per se*, but the perception that major portions of the examination continued to focus on information not pertinent to the “real” principles and practice of dermatology [9].

Many of our residents requested more mock examinations to improve their skills.

Internationally, dermatology has changed dramatically over the past 50 years. Decades ago, medical dermatology and sexual transmitted diseases were a major component of dermatologists' practice. Later, dermatopathology and immunodermatology became distinct subspecialties. In the past 20–30 years, dermatologic surgery, including laser surgery, has become more prevalent. As a consequence, it is the responsibility of training bodies to modify their programme requirements to reflect these major changes.

In 2002, Todd et al. [10] showed that there was more dermatologic surgery training during residency programmes in the USA compared with 1996 [6]. While Webb et al. [6] in their survey in 1996 found that 8% of residents had some experience with liposuction, Todd et al. found it to be 55% [10]. In 1996, 18% of residents reported experience with hair transplantation compared to 45% in 2002. Moreover, the number increased from 16% to 63% for collagen injections. In our survey it is evident that there was a major deficiency in surgical training, with 45% of residents receiving nothing in this field and 55% feeling that the amount was inadequate. This can be explained by the lack of faculty members who have had advanced training in dermatologic surgery.

Residents' rights are crucial for exemplary training. Surprisingly, 36% stated that a quarter of their training consultants had humiliated them verbally and only 4.5% denied such humiliation. Inadequate supervision is a real threat to the training process, as 70% of our residents believed that they received inadequate supervision by their consultants. Certainly 64% of our residents had never had any chance to evaluate their consultants, whereas in the American study 61% of residents had this opportunity [6].

The majority of residents believed that only interested and competent consultants should participate in training and asked for a vote at the end of each training year to choose consultants for training for the coming year.

All of the residents wished to discuss their evaluation with their consultants; however only 40% of them had this chance. It should be emphasized that one of the most frequent reasons for failure by residents to act correctly is inadequate feedback [9]. Feedback should aim at improving and encouraging specific performance, rather than simply criticising [11]. It should be timely, specific, not embarrassing, constructive and relevant [12]. Furthermore, bi-directional feedback can improve the performance of both trainees and faculty members.

Half of our residents were not satisfied with their training. It is crucial therefore to re-evaluate our programmes and take residents' input seriously to improve the quality of training. Likewise, it would also be interesting to know the opinion of the training consultants regarding dermatology residency training in Saudi Arabia. Modern principles of adult learning should be embedded in residency training to improve it. Knowles introduced the term "andragogy", which is the art and science of helping adults learn [8,13], and derived 7 guidelines of andragogy:

1. Establish an effective learning climate, where learners feel safe and comfortable expressing themselves.
2. Involve learners in mutual planning of relevant methods and curricula contents.
3. Involve learners in diagnosing their own needs, which will help to trigger internal motivation.
4. Encourage learners to formulate their own learning objectives, which will give them more control of their learning.

5. Encourage learners to identify resources and devise strategies for using the resources to achieve their objectives.
6. Support learners in carrying out their learning plans.
7. Involve learners in evaluating their own learning, which will lead to development of their skills of critical reflection.

From this survey, it is clear that dermatology residency training needs to be re-evaluated, with input from both trainers and trainees in order to provide effective programmes that satisfy the needs of the residents.

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