

# Original Article

## Dermatological literacy among medical graduates

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**Abstract** *Background* Patients with skin ailments are frequently mismanaged at primary care level. One reason might be inadequate knowledge of medical graduates about skin diseases.

*Objective* Evaluation of dermatological literacy of our medical graduates.

*Methods* 198 doctors graduating in year 2000 & onwards during 1<sup>st</sup> year of house job serving in various hospitals of Lahore having no post-graduation clinical experience in dermatology were enrolled. They attempted a questionnaire consisting of matching, true/false, and single best response pertaining to common dermatoses. Those securing more than 50% marks were considered successful.

*Results* Of 198 medical graduates, only 52 (26%) could get more than 50 % marks. Misconceptions were frequent, 54% thought marriage cures acne, 60% considered that calcium deficiency causes pityriasis alba.

*Conclusion* Dermatological knowledge of medical graduates is highly inadequate. Furthermore, misconceptions are frequent.

**Key words**

Dermatological literacy, medical graduates

### Introduction

Skin diseases are widespread in the community. In USA and UK the prevalence of skin diseases is estimated as 33% and 25%<sup>1</sup> respectively. Pakistan is a developing tropical country and due to poor hygiene, over crowding and poverty certain skin diseases especially various cutaneous infections and infestations are more common. Though the exact statistics are not available the prevalence of skin diseases is likely to be much higher than the developed world. Misdiagnosis and

mismanagement of even common skin diseases is not infrequent at primary health care level. This prolongs the sufferings of patients, wastes their precious working hours and financial resources. It also puts extra burden on the secondary and tertiary health care facilities. One reason of this scenario might be inadequate knowledge and skills of primary health care physicians about dermatology. To objectively assess this issue a study was planned to evaluate dermatological knowledge of fresh medical graduates.

### Methods

This cross-sectional and descriptive study was conducted in dermatology department,

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Allama Iqbal Medical College and Jinnah Hospital, Lahore in August 2003. A questionnaire consisting of matching (02), true/false (06) and single best (15) questions of easy to moderate difficulty index, pertaining to common dermatoses was devised by a panel of three teachers of dermatology. One hundred and ninety eight house officers of various hospitals of Lahore (Jinnah, Mayo, Services, Ganga Ram and Lahore General Hospitals) were included in the study. Those graduated before the year 2000 or having any experience in dermatology were excluded. The questionnaire was solved by all the enrolled doctors. The answers were checked according to the key and marks awarded. The same questionnaire was given to 30 non-doctors. There was no negative marking but the hit and trial benefit was compensated by subtracting 50% of the average score obtained by non-doctors from the marks of doctors. Those securing more than 50% marks were considered successful. All the data was tabulated and analyzed in a database.

## Results

Majority of the enrolled doctors graduated in the years 2002-03 (**Table 1**). Most of them graduated from the medical colleges of the Punjab (**Table 2**). Only 67(34%) and 71(36%) participants have adequate attendance ( $\geq 75\%$ ) in dermatology lectures and ward training during their graduation, according to their response in the questionnaire (**Table 3**). Only 52 (26%) could get passing marks (more than 50%) [**Table 4**]. Scores of individual items showed gross misconceptions and inadequacy of basic dermatological

**Table 1** Graduation year of medical graduates

Year	No of medical graduates (n = 198)
2003	113
2002	58
2001	20
2000	07

**Table 2** College of graduation (n=198)

Name of the College	No of medical graduates
Allama Iqbal Med. College, Lahore	49
Fatima Jinnah Med. College, Lahore	44
King Edward Med. College, Lahore	23
Punjab Med. College, Lahore	22
Nishtar Med. College, Multan	17
Quaid-e-Azam Med. College, Bahawalpur	15
Miscellaneous Colleges	28

**Table 3** Dermatology attendance (n=198)

Attendance %	Lectures No. (%)	Ward No. (%)
0-24 %	42 (21)	67 (34)
25-49 %	34 (17)	24 (12)
50-74 %	55 (28)	36 (18)
75-100 %	67 (34)	71 (36)

**Table 4** Scores of medical graduates

Score %	Number of medical graduates	
	No.	%
0-25	31	16
26-50	115	58
51-75	51	26
76-100	1	< 1

knowledge. For example, in response to questions “Papule is a fluid filled lesion”, “Plaque is palpable”, “Scales are dried exudates”, and “In scabies fomites are more important than direct contact”, 48%, 58%, 77% and 68% doctors replied incorrectly. Majority thought that marriage cures acne (54%) and calcium deficiency is the cause of pityriasis alba (60%). Regarding treatment of acne, a big

majority (78%) considered corticosteroids as treatment for acne.

## **Discussion**

In a questionnaire survey conducted in Karachi by Rathi *et al.*<sup>2</sup> only 36% of general practitioners had a satisfactory level of awareness about various aspects of scabies, highlighting inadequate knowledge of general practitioners about one of the most common skin diseases in Pakistan. Results of our study also showed that knowledge of fresh medical graduates about common dermatoses was highly inadequate (only 26% could secure >50 % marks). The reasons of this scenario are multifold. Dermatological teaching and evaluation is highly inadequate both in content and methodology in all the medical colleges in Pakistan. Number of lectures and duration of clinical attachment is much below the minimum requirements. There is no compulsory question pertaining to dermatology in theory paper in final year examination and dermatologist does not frame the question. Students are not assessed clinically in dermatology through either short or long cases and/or clinical slides. Furthermore attendance in dermatology is not given due weightage. Due to this, many students never attend dermatology lectures and wards. This is also evident in our study where majority of the doctors had unsatisfactory attendance in dermatology during their graduation (**Table 3**). Also problem-based learning (PBL) and other modern learning methods have not been introduced in dermatology teaching. In contrast to this scenario, in the new curriculum for undergraduate medical

education in UK,<sup>3</sup> PBL methodology has been adopted for teaching dermatology and active contribution of dermatologists in teaching of basic science has been stressed. Students get opportunities to see dermatology patients even in 1<sup>st</sup> and 2<sup>nd</sup> year of their training. They have to pass theory paper in final year examination and clinical examination in dermatology at the end of clinical attachment. Burge<sup>4</sup> also stressed in his article about curriculum planning in dermatology that medical undergraduates should have opportunities to actively participate in dermatology clinics under appropriate supervision.

In our study, participant's knowledge of dermatology was highly inadequate e.g. 78% considered corticosteroids as treatment for acne. Misconceptions about skin ailments were frequent. 54% felt that marriage cures acne, and 60% had the feeling that calcium deficiency causes pityriasis alba. The impact of inadequate knowledge and misconceptions ultimately affects the rights of skin patients. Misery and suffering of patients is enhanced due to inadequate primary care. This also leads to increased load on tertiary health care facilities.<sup>5</sup> A study by Brajac *et al.*<sup>6</sup> in Croatia shows that overall knowledge of family physicians pertaining to the causes, natural course and therapy of acne was very low. The overall score of correct answers was 15%, 6%, and 21%, respectively for questions pertaining to causes, natural course and antibiotic therapy of acne.

To address this devastating situation of dermatologic literacy among medical graduates, it is need of the time to improve

dermatology teaching in medical colleges in the best interest of skin patients.

### Conclusion

Dermatological knowledge of medical graduates is highly inadequate and misconceptions are frequent. Decision makers should pay attention to address this situation. Further studies are required to highlight this situation & its impact on patients suffering from skin ailments. Suggestions are also required about ways & means to enhance dermatology literacy among medical graduates.

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