



ACADEMIA ESPAÑOLA
DE DERMATOLOGÍA
Y VENEREOLÓGIA

ACTAS Dermo-Sifiliográficas

Full English text available at
www.actasdermo.org



CASE AND RESEARCH LETTER

[Translated article] What Do Medical Students Think About Dermatology? A Prospective Observational Study



¿Qué opinan los estudiantes de medicina sobre la dermatología? Un estudio observacional prospectivo

To the Editor,

Dermatologic diseases are one of the most common reasons for referral from primary care.¹ Similarly, since almost one third of medical students become family physicians,² training plans must be designed based on specific and precise objectives that identify the actual areas physicians should cover in their professional activity and future care work. While the number of hours devoted to dermatology is increasing in training programs,³ it is important to reach an appropriate balance in order to avoid a very extensive curriculum offering such an abundance of information from that the student finds it difficult to identify the key areas of the subject.⁴ The objective of the present study was to determine the opinion, expectations, and evaluation of fourth-year medical students with respect to dermatology as a specialty, as a subject, as a career option, and as a learning experience throughout an academic year.

We designed a prospective observational study including students taking dermatology at the School of Medicine of the University of Granada, Granada, Spain during the academic year 2018–2019. The students completed a survey at the start of the course (Annex 1. See Supplementary Material) and at the end of the course (Annex 2. See Supplementary Material). The surveys were anonymous and voluntary and were conducted in-person, respectively, during the first and last dermatology classes of the course.

Dermatology as a Subject

The study population comprised 100 students (66 women and 34 men). The mean grade of the participants was 7.29/10. Only 23% of the students initially thought that it was important to attend class, whereas on completing the course, 69% thought that attendance was important. The difference was statistically significant ($P < .001$). Two-thirds (66%) had favorable expectations before taking dermatology, and in the end-of-study survey, 92% felt that their expectations had been met satisfactorily. The areas of the subject that students liked most were the teaching methods used and staff (65%). The areas they liked least were the distribution of interim examinations (16%) and the lack of practical training (13%).

Dermatology as a Specialty and the Figure of the Dermatologist

More than 90% of students felt that dermatology was a key part of the overall training of a physician. Before beginning the subject, 43% considered dermatology as a future career option. This percentage increased significantly to 78% ($P < .001$). The students were asked about their notions and stigmas with respect to dermatology (Table 1) and their opinion on dermatologists (Fig. 1). The initial survey revealed that the main reasons dermatology is in high demand as part of the official training of a medical resident were the absence of on-calls (27%), quality of life (19%), and salary (17%). On completing the course, the students had changed their minds ($P < .001$), considering that the main reason for choosing dermatology as a specialty was because it was very interesting and varied (27%), followed by quality of life (12%) and absence of on-calls (12%).

Official residents' training programs have revealed that residents would prefer closer follow-up by their tutors.⁵ Similarly, in universities, it is important to know the expectations and experiences of students before and after taking the subject because current guidelines recommend that university lecturers act as the link between students and their training.⁶

More than half of medical graduates work as family physicians. Given that patients often consult for dermatologic conditions, students must be well trained in the discipline, with emphasis on and in-depth study of dermatology, both

DOI of original article:

<https://doi.org/10.1016/j.ad.2021.10.015>

<https://doi.org/10.1016/j.ad.2021.10.025>

0001-7310/© 2022 AEDV. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Table 1 Students’ Opinions on Dermatologic Conditions.

	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
	Start	End	Start	End	Start	End	Start	End	Start	End
They are a common presenting complaint, %	0.00	1.00	17.00	3.00	32.00	5.00	36.00	88.00	15.00	3.00
They are difficult to control, %	7.00	11.00	25.00	32.00	44.00	41.00	19.00	12.00	5.00	4.00
Most conditions are incurable, %	23.00	29.00	42.00	47.00	24.00	17.00	11.00	7.00	0	0
They usually only affect the skin, %	32.00	61.00	31.00	23.00	29.00	11.00	4.00	5.00	4.00	0
They are very contagious, %	13.00	22.00	39.00	41.00	33.00	29.00	12.00	7.00	3.00	1.00
Most itch and sting, %	6.00	5.00	25.00	21.00	36.00	47.00	26.00	21.00	7.00	6.00
They are associated with considerable psychologic involvement, %	4.00	4.00	16.00	12.00	23.00	15.00	29.00	23.00	28.00	46.00
Clinical diagnosis is complex, %	2.00	8.00	15.00	18.00	26.00	26.00	45.00	31.00	12.00	17.00
Most conditions are trivial except for skin cancer, %	35.00	37.00	38.00	32.00	15.00	19.00	8.00	9.00	4.00	3.00
Lifestyle plays a role in skin diseases, %	4.00	1.00	1.00	6.00	9.00	8.00	38.00	29.00	48.00	56.00
Many conditions can be managed by nonspecialists, %	14.00	16.00	36.00	32.00	31.00	29.00	16.00	18.00	3.00	5.00
Many conditions can be managed by specialists in similar areas, %	48.00	56.00	25.00	21.00	14.00	11.00	11.00	5.00	2.00	7.00
I would find physical examination unpleasant, %	33.00	43.00	25.00	28.00	18.00	18.00	18.00	7.00	6.00	4.00

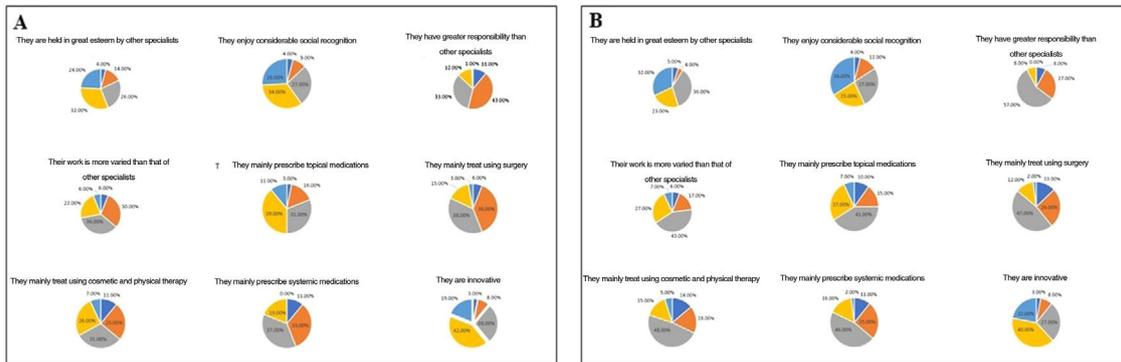


Figure 1 Opinion on dermatologists before starting the course (A) and after completing the course (B).

during training and during specialization: some studies on the preparation of family physicians show that training in dermatology could be improved.⁷⁻⁹

Of note, students’ perception of dermatologic diseases and dermatology itself changes after taking the subject. Students’ satisfaction with dermatology has also been shown in similar studies performed in California, USA.¹⁰ There is an erroneous belief that dermatologists only diagnose skin diseases superficially and that dermatology patients only experience itching or burning sensation. After taking the subject, the students discover that dermatologic conditions are really the external expression of many diseases, since many abnormalities manifest through the skin.¹¹ Moreover, unlike other diseases, skin conditions are visible, and patients with dermatologic disease experience considerable stigmatization, with a considerable impact on their quality of life.^{12,13}

In conclusion, the present study shows that students’ opinions on dermatology as a subject, as well as their perception of this specialty and the figure

of the dermatologist, improve after completing the course.

Appendix A. Supplementary Data

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.ad.2021.10.025](https://doi.org/10.1016/j.ad.2021.10.025).

References

- Rodriguez Alcala FJ, Chacon Fuentres J, Esteban Tudela M, Valles Fernandez N, Lopez de Castro F, Sanchez Ramiro A. Motivos de interconsulta entre atención primaria y el segundo nivel. *Aten Prim.* 2005;36:137–43.
- Boletín Oficial del Estado, Sábado 11 de septiembre de 2021, núm. 218; 2021. Available at: <https://www.boe.es/boe/dias/2021/09/11/pdfs/BOE-A-2021-14809.pdf> [accessed 12.08.21].
- Hu A, Vender R. Undergraduate dermatology education in Canada: a national survey. *J Cutan Med Surg.* 2018;22:31–7.

4. Estrach MT. Dermatología y Universidad. *Actas Dermosifiliogr.* 2009;100:251–2.
 5. Montero-Vilchez T, Molina-Leyva A, Martínez-Lopez A, Buendia-Eisman A, Ortega-Olmo R, Serrano-Ortega S, et al. Specialized dermatology training in Spain: opinions of 53 third-year dermatology residents surveyed in 2019. *Actas Dermosifiliogr (Engl Ed).* 2021;112:287–90 [article in English, Spanish].
 6. Casanova JM, Pujol RM, Ferrandiz C, Betlloch I, Bosch RJ, Fernández V, et al. Contenidos fundamentales de la Dermatología en el grado de medicina en España. Recomendaciones del grupo de profesores de la Academia Española de Dermatología y Venereología. *Actas Dermosifiliogr.* 2016;107:125–32.
 7. Gonzalez-Lopez G, Descalzo-Gallego MA, Arias-Santiago S, Molina-Leyva A, Gilaberte Y, Fernández-Crehuet P, et al. Derivación de pacientes en consulta de dermatología y de teledermatología en España. Estudio DIADERM. *Actas Dermosifiliogr.* 2019;110:146–52.
 8. Castillo-Arenas E, Garrido V, Serrano-Ortega S. S Motivos dermatológicos de consulta en atención primaria. Análisis de la demanda derivada. *Actas Dermosifiliogr.* 2014;105:271–5.
 9. Casanova JM, Baradad M, Soria X, Marti RM. Una web docente para el aprendizaje de la Dermatología en el pregrado. *Actas Dermosifiliogr.* 2009;100:866–74.
 10. Davari P, Millsop JW, Johnson MAN, Takahashi SR, Peng DH, Badger J, et al. Dermatology medical education: a multicenter survey study of the undergraduate perspective of the dermatology clinical clerkship. *Dermatol Online J.* 2017;23:13030/qt8bs7f6d5.
 11. Nordlind K, Azmitia EC, Slominski A. The skin as a mirror of the soul: exploring the possible roles of serotonin. *Exp Dermatol.* 2008;17:301–11.
 12. Martínez-García E, Arias-Santiago S, Valenzuela-Salas I, Garrido-Colmenero C, García-Mellado V, Buendia-Eisman A. Quality of life in persons living with psoriasis patients. *J Am Acad Dermatol.* 2014;71:302–7.
 13. Cuenca-Barrales C, Montero-Vilchez T, Szepietowski JC, Matusiak L, Molina-Leyva A. Sexual impairment in patients with hidradenitis suppurativa: a systematic review. *J Eur Acad Dermatol Venereol.* 2021;35:345–52.
- T. Montero-Vilchez, M. Molina-Cabrerizo, R. Ortega-Olmo, S. Serrano-Ortega, S. Arias-Santiago*, A. Buendia-Eisman
- Departamento de Dermatología, Facultad de Medicina, Universidad de Granada, Granada, Spain*
- * Corresponding author.
E-mail address: salvadorarias@ugr.es (S. Arias-Santiago).