

# Learning in practice

## What should undergraduate medical students know about psoriasis? Involving patients in curriculum development: modified Delphi technique

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### Abstract

**Objective** To identify the content of a psoriasis curriculum for medical students.

**Design** Literature review and modified Delphi technique.

**Setting** Primary and secondary care in Oxfordshire and Buckinghamshire.

**Subjects** 19 dermatologists (7 teaching hospital consultants; 6 consultants in district general hospitals; 6 registrars); 2 general practitioner senior house officers working in dermatology, 5 dermatology nurses, 7 rheumatologists, 25 general practitioner tutors, and 25 patients with chronic psoriasis.

**Main outcome measures** Percentage of agreement by participants to items derived from literature and our existing psoriasis syllabus.

**Results** 71 (84.5%) of 84 questionnaires were returned. A 75% level of consensus was reached on key items that focused on the common presentations of psoriasis, impact, management, and communication skills. Students should be aware of the psychosocial impact of psoriasis, examine the skin while showing sensitivity, and be able to explain psoriasis to patients in a way that enables patients to explain the condition to others.

**Conclusions** The panels identified the important items for a psoriasis curriculum. The views of patients were particularly helpful, and we encourage educators to involve patients with chronic diseases in developing curriculums in the future. The method and results could be generalised to curriculum development in chronic disease.

### Introduction

Psoriasis is a chronic disease that affects about 2% of the population in the United Kingdom. Psoriasis is mentioned in the core of most undergraduate curriculums, but precisely what should students learn about psoriasis? Learning and teaching should equip medical students to work as junior doctors as well as prepare them for their future careers,<sup>1,2</sup> but psoriasis is a large topic encompassing pathogenesis, clinical presentations, psychosocial impact, differential diagnosis, and management. We aimed to identify what students

attending a 90 minute workshop should learn about psoriasis.

We used a modified Delphi technique to gain consensus on the content of the workshop. The Delphi technique may be used to determine the extent of agreement on an issue. A panel of experts are invited to take part in a series of rounds to identify, clarify, and finally gain consensus on the particular issue. This technique has been used to identify the content of a number of curriculums.<sup>3-7</sup> We consulted two panels, health professionals and patients with chronic psoriasis. The method and outcomes of our study are relevant to developing teaching and learning in other chronic diseases.

### Methods and participants

We searched the internet and Medline (1974-2003), using key words and terms including “curriculum”, “medical under-graduate education”, “problem-based learning”, “psoriasis”, “standardised patients”, “expert patients”. We were unable to find previous studies that had identified what medical students should learn about psoriasis or had asked patients with psoriasis about the content of the undergraduate curriculum.

To reduce the number of rounds in our Delphi study, we generated two questionnaires (one for healthcare professionals and one for patients) from our informal syllabus, the undergraduate curriculum published by the British Association of University Teachers of Dermatology (BAUTOD)<sup>8</sup> and the published literature on the impact of psoriasis.<sup>9</sup> We piloted one questionnaire with five consultant dermatologists and five general practitioners. The other, with simplified wording and more questions that focused on the psychosocial impact and management of psoriasis, went to five patients with chronic psoriasis attending the dermatology department at the Churchill Hospital, Oxford. We invited these panels to comment on the content of the questionnaires and their clarity and reworded the questionnaires in response to their comments.

The final questionnaire for healthcare professionals contained 37 items. This went to a panel that



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BMJ 2005;330:633-6



The full questionnaires are on [bmj.com](http://bmj.com)

included the doctors who had participated in the first round. The panel comprised 19 dermatologists (7 teaching hospital consultants; 6 consultants in district general hospitals; 6 registrars), 2 general practitioner senior house officers working in dermatology, 5 dermatology nurses, 7 rheumatologists, and 25 general practitioner tutors who taught medical students. The final questionnaire for patients contained 30 items. Some were similar to those in the healthcare professionals' questionnaire, but additional items related specifically to the patient's experience of living with psoriasis. This questionnaire went to 25 patients with chronic psoriasis attending the dermatology department at the Churchill Hospital, including those who had participated in the first round.

We explained in a covering letter that we aimed to determine the content of a 90 minute workshop for medical students on "psoriasis." Each participant was asked to accept, reject, or question the inclusion of each item and was encouraged to provide comments. Items for which at least 75% consensus was reached would be accepted or rejected. Items for which acceptance reached 50-74% might be included in the workshop if time allowed.

## Results

We sent out 84 questionnaires, and 71 (84.5%) were returned. Completed questionnaires were returned by 18 of 19 dermatologists, 4 of 5 dermatology nurses, 6 of 7 rheumatologists, both general practitioner senior house officers, 21 of 25 general practitioners, and 20 of 25 patients. (Two patients did not complete the reverse side of the questionnaire, omitting 11 items.) Sufficient consensus on the content of the workshop was achieved after one round of questions.

A 75% level of consensus was reached by healthcare professionals and patients on the items listed in box 1. These tackle the common presentations of psoriasis, impact, management, and communication skills. Healthcare professionals agreed that students should know when to refer a patient with psoriasis, and patients agreed that students should know where to ask for more help or information.

### Box 1: Items accepted by 75% or more of both healthcare professionals and patients

Students should:

- Know about the different forms of psoriasis
- Know what makes psoriasis worse
- Know how to recognise and describe the common physical signs of psoriasis
- Understand the importance of determining the impact of the disease on the patient
- Be aware of the physical and psychological impact of psoriasis on patients
- Know the importance of explanation and reassurance
- Understand in broad outline the available treatments and their limitations
- Know treatment of common forms of psoriasis
- Examine the skin in a sensitive and courteous manner

### Box 2: The patient's experience—items accepted by 75% or more of patients

Students should:

- Know that different types of psoriasis need different treatments
- Know the importance of asking patients about their hopes from treatment
- Be aware of interference of psoriasis with daily living (style of hair, clothes)
- Be aware of issues such as pain, itching, burning, and dry skin
- Be aware of the need to provide time for patients to ask questions
- Be aware of the need to find out the patients' views about their disease  
(Results have been adjusted for two incomplete questionnaires.)

### Box 3: Areas of divergence (items in both questionnaires)

Students should:

- Know about the role of dermatology nurses (selected by 85% of patients and all the nurses, but only 43% of doctors)
- Be aware of financial and other practical aspects of living with psoriasis (selected by 75% of patients but only 38% of doctors and nurses)
- Know about complementary and alternative therapies (selected by 50% of patients but only 4% of doctors and nurses)

A 75% level of consensus was reached by patients on additional items related to living with psoriasis (box 2). Students should be aware of the effect that psoriasis may have on many aspects of daily living and the importance of tailoring treatment to the individual.

We also looked at the responses of patients, nurses, and doctors separately to identify areas of divergence, and these data are given in box 3.

Informative comments are listed in boxes 4 and 5.

## Discussion

Although psoriasis is included in most undergraduate curriculums, we did not find any previous studies that have defined the content of a curriculum covering psoriasis. The panels reached consensus without difficulty, agreeing that learning should focus on the common presentations of psoriasis, impact on the patient, and management. Students should understand the importance of empowering patients, by providing them with enough information to explain their condition to others and by enabling them to take responsibility for their own management. Students should learn to explore patients' concerns, explain diagnoses and treatment, discuss approaches to management, and provide reassurance. Good communication enables doctors and patients to work in partnership to achieve control of the disease<sup>10</sup> and

**Box 4: Comments from patients**

- Please be careful when using the word disease. It brings to mind a contagious catching ailment. We spend a lot of time telling people it [psoriasis] is not
- Patients want to know how best to treat psoriasis, but we get turned off if the treatment is worse than the psoriasis. So please express [sic] the advantages and disadvantages of cream, pills, light, alternatives
- Patients and their families need to know where they can go for support. Psoriasis is an antisocial complaint. Because we do not look good, we do not feel good, and this should be understood by the students
- Patients need to know enough about the complaint to tell family, friends, and those at work
- Psoriasis, at least in the general practice setting, is a relatively simple disorder. The danger is that students learn only about the physical aspects at the expense of the often most important social and psychological aspects. There is a world of difference between a general practitioner knowing that psoriasis will probably not go away and presenting that information in a sensitive and positive way. All too often the necessary motivation to adhere to treatment is shattered by poorly thought out, throwaway comments in general practitioners' surgeries, long before any treatment has been given a chance to work
- I think it should be emphasised to students that, although in many cases the physical symptoms of psoriasis seem to be mild, psoriasis can nevertheless have serious psychological effects. In the 30 years I have had psoriasis I have generally had very attentive and sympathetic treatment, but there have been cases when I felt my condition was not being taken as seriously as it might have been
- I find the cost a great drain as I use several different treatments at one time. I have now purchased a prepayment certificate, which cuts the cost dramatically
- I would like to attend the psoriasis seminar to learn more about psoriasis
- My feelings on what treatment I feel suits me and what I feel about side effects are not taken into consideration enough
- Psychological support as part of treatment. Alleviating anxiety and fears among children whose parent suffers from psoriasis
- Psoriasis is not an easy disease to live with, although I'm sure the effect of it varies from person to person. However, for doctors treating individuals, the chronicity of the disease and how much of the skin is blighted by it would obviously inhibit the patient's ability to cope. The more doctors can ease the situation with understanding and care, the better. Personally I think the ability to treat oneself properly is very important; this way it can at least be kept under control

may be practised with actors, but the importance of communication should be reinforced every time students observe interactions between doctors and patients in clinics.

**Divergence**

Eighty five per cent of the patients and all the nurses agreed that students should learn about "the role of dermatology nurses," but only 43% of the doctors identified this as important. Perhaps some doctors are not aware of the learning opportunities that may

be created by specialist dermatology nurses who support and care for patients with chronic skin diseases. Most dermatology departments have such nurses, but few work in the community, although many practices have nurses who specialise in chronic diseases such as diabetes or asthma. We agree with the patients and nurses that medical students should have opportunities to work with and learn from specialist nurses.

Seventy five per cent of patients, but only 38% of doctors and nurses, agreed that students should be aware of "financial and other practical aspects of living with psoriasis." For example, prescription costs may be high if different medicaments are needed for different body sites, and patients need to know that prepayment certificates can reduce the costs of prescriptions. Although doctors and nurses ranked these issues less highly than patients, we believe that students should know the importance of exploring these and related issues with patients.

Fifty per cent of the patients, but only 4% of doctors and nurses, agreed that students should "know about complementary and alternative therapies." We did not find this result surprising. Students should be aware that many patients pursue complementary and alternative medicine, sometimes in parallel with conventional medicine, and should recognise the potential for adverse events including drug interactions. Students should also be able to discuss complementary and alternative medicine with patients and the risks or benefits of stopping conventional treatments without appearing judgmental. But detailed knowledge of specific complementary and alternative medicines is not part of a psoriasis curriculum. The wording of this question could have been more specific.

**The panel**

We gave the content of the curriculum validity by consulting non-dermatologists as well as dermatologists and dermatology nurses. We sought the views of general practitioners because most patients with psoriasis are treated in primary care, and much of the undergraduate curriculum is delivered in the community. We selected local general practitioners who were medical school tutors because they were familiar with the issues surrounding curriculum development, teaching, and learning. We involved rheumatologists because students working in rheumatology meet patients with psoriasis and psoriatic arthropathy.

Most importantly, we asked people with chronic psoriasis what medical students should know about psoriasis. The "consumer approach" has been suggested as an aid to curriculum planning,<sup>11</sup> and some

**Box 5: Comments from doctors or nurses**

- Emphasis on acknowledging disease, not "Oh it is a skin disease; learn to live with it" (dermatology nurse)
- Key areas: patients' concerns, management options, social impact, and work impact (general practitioner)
- Patients' problems or dislikes of treatment not prominent enough (general practitioner)

**What is already known on this topic**

Psoriasis is a common chronic disease that is mentioned in most undergraduate curriculums, but it is not clear what students should learn about psoriasis

No previous studies have attempted to identify what students should learn about psoriasis. The Delphi technique may be used to determine the extent of agreement on an issue

This technique has been used to determine the content of curriculums in several disciplines

**What this study adds**

Patients in the study highlighted the importance of making students aware of the impact of psoriasis on daily living

Involving patients in curriculum development is beneficial

The method and outcomes are of general relevance for curriculum development in chronic medical conditions

schools have asked the public for their views about medical education,<sup>12</sup> but we have not found any previous studies in which people with a chronic illness were asked specifically what students should learn about that condition.

The General Medical Council states that medical graduates must know about the care of people with chronic illness,<sup>1</sup> and much has been written about the role of people with chronic diseases as teachers and assessors.<sup>11 13 14 15</sup> These expert patients can also make valuable contributions to curriculum development, but it seems that their views are sought rarely. Shaw explored how three curriculums prepared students to respond to people with chronic illness but noted that “patients did not have an obvious role in any of the programmes to comment on the process or content of the learning . . .”<sup>16</sup>

Teaching and learning should tackle the person’s subjective experience of illness as well as the bioscience underpinning its diagnosis and management. Someone with a chronic illness such as psoriasis is in the best position to know about its impact, the practicalities of treatment, and the attitudes of other people, including the medical profession, to the condition.<sup>17 18</sup> The patients provided us with valuable insights into what medical students should learn about living with psoriasis.

**Conclusions**

Patients should be at the centre of teaching and learning about chronic disease. Expert patients can influence and enhance the educational experience for students. An estimated 17.5 million adults in Great Britain have a chronic illness,<sup>19</sup> and we encourage educators to involve some of those people in curriculum planning. The method and results of this study can be

generalised to provide guidance to curriculum development in chronic disease.

We thank all those who helped to define the psoriasis curriculum, especially the patients.

Contributors: AA designed the study, collected the data, and participated in analysing the data and writing the paper. SB conceived the study, guided the study design, and participated in analysing the data and writing the paper. SB is guarantor.

Funding: None.

Competing interests: None declared.

Ethical approval: Not required.

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