



PAUL COOPER

## Q&A Christopher Griffiths

# Under their skin

*Psoriasis can have a profound impact on patients' emotional and social lives. Christopher Griffiths, a dermatologist at the University of Manchester in the United Kingdom, discusses the disease's psychological fallout and its links with stress.*

### **What kind of social and psychological problems do people with psoriasis have?**

They have higher levels of depression, anxiety and suicidal ideation than the general population. It's terribly sad. So while people correctly point out that psoriasis is not life-threatening, the disease certainly ruins lives. It was only in the early nineteenth century that leprosy and psoriasis were recognized as separate conditions. Unfortunately, 200 years on, the general public still views psoriasis as contagious. Psoriasis is highly visible, and the immediate response of a lot of people when they see someone with psoriasis is not empathy or sympathy, but to recoil. The average age of onset is in the late teens or early twenties. To have a disease

that carries such a stigma when someone is trying to make their way in life and forge relationships is extremely disabling. And paradoxically, the greater the psychosocial disability the patient suffers, the less likely they are to comply with treatment. It's like a self-fulfilling prophecy. We need to understand why that is the case.

### **Does psoriasis affect patients' careers?**

People believe that psoriasis on the hands or face limits their career choices. They feel that they are judged on their appearance, and therefore may not be put on a front desk as a receptionist, or be allowed to work directly with the public or to serve food. And it's not just a matter of perception. Some people with

severe psoriasis on their hands have difficulty writing and typing, and that might affect their ability to perform in exams or to do their job. The condition can also lead to time off work or school for treatment. All those little increments can add up to a less-than-perfect ability to achieve the heights they would have without the disease.

### **How do patients deal with the stigma and rejection?**

They often practise something called avoidance coping. They will consciously, or subconsciously, avoid situations where others might comment negatively about their psoriasis. For example, a person with psoriasis won't go to a public swimming pool because he or she has heard stories about — or might even

have experienced — being asked to leave by poorly informed members of the public, or even swimming pool staff, who believe that psoriasis is contagious.

There are also profound differences in the way psoriasis patients process other people's responses. We did a study<sup>1</sup> where we took volunteers who had psoriasis and volunteers who didn't and asked them to assign gender to photographs of faces while we scanned their brains using functional magnetic resonance imaging. That task was just a ruse, though. In fact, what we were doing was showing them pictures of disgusted or fearful facial expressions, and ascertaining how they processed them. The interesting thing was that there was no difference between the volunteers with and without psoriasis for expressions of fear, but if they were shown disgust there was a very marked difference — and it was actually the opposite of what we had predicted. In the volunteers with psoriasis, looking at a photo of a disgusted expression was accompanied by reduced blood flow in the anterior insula, the part of the brain that processes disgust. We interpret this as their way of coping, as a shut-off of their response to that disgusted facial expression. And the longer they had had psoriasis, the greater the blood-flow reduction. It's almost a subconscious way of managing the hostile responses of other people.

#### Do these neurological differences show up in other ways?

We took the same subjects from that first study, sat them in front of a computer screen and showed them pictures of actors simulating different levels of fear or disgust — so, maybe 20% or 30% fear, and so on. We asked the volunteers to press a button when they were certain of the facial expression. With fear, there was no difference between volunteers with and without psoriasis. With disgust, however, a non-psoriatic individual would recognize the expression at about 20% intensity. But even though the volunteers with psoriasis knew what they were looking for, it still took them to about 70% before they were sure they were looking at a disgusted facial expression. So it's a very hardwired coping mechanism.

We see something like this in clinical practice as well. When patients clear their psoriasis outbreaks, their level of tolerance of even small amounts of visible psoriasis in a relapse is far less than it was before. It's as if clearing their psoriasis breaks their coping mechanisms.

#### How do doctors care for people with a disease that affects so many aspects of their lives?

There has been a revolution in the management of patients with very severe psoriasis, thanks in particular to the development of so-called biologic therapies, such as antibody drugs (see 'Silencing psoriasis', page S58). It's a good example of translational medicine — where understanding the molecular pathways

and immune pathways in a disease has helped us to recognize key targets for these new biologic therapies. The paradox is that you've got fantastic, science-led translational research helping this group of patients with severe disease, but there's a disconnect in understanding how to manage the patient as an individual.

We interviewed<sup>2</sup> people about what it's like living with psoriasis, and what their concerns are about the management of their condition. In the United Kingdom, there's a lack of engagement between doctors and patients with psoriasis.

#### **"People believe that psoriasis on the hands or face limits their career choices."**

For the most part, doctors look at just the skin and not the disease's effect on the patient as a whole — the links with depression, suicidal ideation and, of course, the emerging evidence of links with cardiovascular disease (see 'Don't be superficial', page S55). The patients do not believe that their doctors understand psoriasis or are willing to give the time to treat the condition properly. I suspect this situation is not unique to the United Kingdom.

#### **The psychosocial problems you've talked about are fairly well established. Aren't doctors aware of the literature?**

Doctors know about it, but we're not set up properly to do anything about it. A physician in the UK National Health Service, for example, can only allot about ten minutes to a primary care consultation. That's simply not enough time to determine whether a psoriasis patient is depressed, or to work out what to do about it.

#### **What needs to change?**

Doctors need to adopt a holistic approach to psoriasis, to manage it as a complex, long-term condition, in the same way that they now handle higher-profile chronic diseases such as diabetes, rheumatoid arthritis and chronic lung disease. Towards this end, we have launched a five-year study called IMPACT (for Identification and Management of Psoriasis Associated Comorbidity), funded by the UK National Institute for Health Research. The goal of this study is to help healthcare professionals manage psoriasis more effectively — not just treating the skin, but recognizing depression and anxiety better and picking up cardiovascular disease earlier. Our findings will also allow us to develop packages of care — essentially education and counselling — that healthcare professionals can deliver to patients.

#### **What form might psoriasis education and counselling take?**

We have developed a cognitive behavioural therapy (CBT) programme for people with psoriasis. It is based on one designed for people coping with pain, disfigurement, social anxiety and stigma. Our CBT programme

educates patients about their condition and gives them cognitive techniques to handle negative beliefs that others might have about them. It teaches coping skills and stress reduction and relaxation techniques, including muscle relaxation.

We have conducted a controlled trial<sup>3</sup> to ascertain the utility of the CBT programme. At the end of a six-week intervention, we found that patients who received CBT in addition to their regular topical or systemic therapy had less severe psoriasis than the patients who didn't have the CBT. But, even more importantly, six months after the intervention, that group still had better-controlled psoriasis.

We're also looking at the best way to deliver this kind of holistic care. Does it need to be doctors who do it, or psychologists or counsellors? Or can other healthcare workers deliver this package, and more cost-effectively? One method we've used to deliver this kind of care in a less expensive, less time-consuming way is through an internet-based CBT system funded by the Psoriasis and Psoriatic Arthritis Alliance, where patients with psoriasis can access modules in their own time at home. We have a paper soon to be published in the *British Journal of Dermatology* demonstrating that patients who followed the modules improved their quality of life compared with patients who did not. This improvement was measured using the Dermatology Life Quality Index, which asks a patient to rate how physically uncomfortable his or her psoriasis has been over the past week, as well as how much it has interfered with work, daily activities, relationships and the like.

There may also be an opportunity to use Facebook or other social media, particularly to engage younger people with psoriasis so they can discuss the condition and stay informed of new developments, such as treatments or clinical trials. There are all these different tricks we can use, particularly in the modern era, to manage patients better than we could have done in the past.

#### **How optimistic are you that care for psoriasis patients can be improved?**

I'm very optimistic. The reason I say that is because we're starting at a low baseline that offers little psychosocial support for patients. If we can make the management of psoriasis more complete, compelling and holistic, then I think patients are going to benefit. That could improve not just their skin disease, but their general health as well. ■

*Interview by Rebecca Kessler, a freelance science journalist based in Providence, Rhode Island.*

1. Kleyn, C. E. et al. *J. Invest. Dermatol.* **129**, 2613–2619 (2009).
2. Nelson, P. A. et al. *Br. J. Dermatol.* doi: 10.1111/j.1365-2133.2012.11217.x (2012).
3. Fortune, D. G. et al. *Br. J. Dermatol.* **146**, 458–465 (2002).