

# Disease Burden and Treatment Adherence in Psoriasis Patients

Steven R. Feldman, MD, PhD

## Practice Points

- Psoriasis is a chronic, life-altering disease that can impact a patient's quality of life.
- Patient perception of treatment success is defined by efficacy, safety and tolerability, frequency of administration, and duration of treatment.
- Physicians who treat patients with psoriasis need to build collaborative relationships to ensure patient adherence to treatment.

*Psoriasis can have a large impact on a patient's quality of life, yet adherence to psoriasis treatment often is poor. A large international study was conducted in adults with psoriasis and/or psoriatic arthritis to characterize the disease burden of psoriasis and its relationship to treatment adherence using a detailed, self-administered questionnaire. The results presented in this article represent the subset of US respondents who were currently taking prescription medication (N= 193). The impact of psoriasis was graded as moderate to extremely high by 71% of US survey respondents. Among the respondents who did not adhere to prescribed treatments, approximately 50% attributed their nonadherence to forgetfulness and reported using the medication when they deemed it necessary. Respondents expressed a strong willingness to adhere to medications that*

*were effective and to try multiple new treatments to find an optimal therapy. Of the respondents who were currently taking prescription medication, 88% were using topical therapies. The greatest unmet needs associated with topical psoriasis treatment were identified as fewer side effects, more rapid onset of action, and increased efficacy. The majority of respondents described positive relationships with their physician and a positive outlook with regard to physician communication, indicating an opportunity for the physician to directly influence patients' perceptions of disease burden and quality of life. When treating psoriasis with topical therapies, physicians should focus on improving and maintaining patients' quality of life, as this practice can be expected to improve treatment adherence and efficacy.*

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From Wake Forest Baptist Medical Center, Winston-Salem, North Carolina.

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Correspondence: Steven R. Feldman, MD, PhD, 4168 Country Club Rd, Winston-Salem, NC 27104 (sfeldman@wakehealth.edu).

The effects of psoriasis on quality of life are far reaching and frequently affect patients' physical, social, and psychological well-being.<sup>1,2</sup> Patients report depression, embarrassment, and difficulty with social interactions attributable to psoriasis, as well as dissatisfaction with treatment. The physical and mental burden of psoriasis is similar to or greater than the burden associated with other serious disease states, including type 2 diabetes mellitus, myocardial infarction, and cancer.<sup>3</sup>

The majority of psoriasis patients have limited disease that can be treated with topical agents.<sup>4,6</sup> A representative survey of medical practices in the United States found that approximately 67% of more than 10,000 dermatologists surveyed and more than 79% of approximately 2100 nondermatologist clinicians prescribed topical therapies for psoriasis as monotherapy.<sup>5</sup> Corticosteroids are the cornerstone of the topical treatment of psoriasis.<sup>5,7</sup>

Despite the availability of effective topical regimens, treatment adherence among psoriasis patients remains low. A study evaluating the rate of primary adherence to treatment of dermatologic conditions, measured by the rate of redemption of the initial prescription at a pharmacy, found that patients with psoriasis (N=322) had the lowest rates of primary adherence (approximately 45% nonadherence) among patients with chronic dermatologic conditions.<sup>8</sup> Rates of adherence diminished as the duration of treatment increased.<sup>9</sup> Participants cited various reasons for nonadherence, including being too busy, feeling fed up with the treatment, and finding the treatments too messy.<sup>10</sup> Other factors such as efficacy, frequency of application, side effects, and cost of treatment also contributed to nonadherence to topical treatments in psoriasis patients.<sup>4,11</sup>

To achieve better treatment adherence and enhance quality of life for patients with psoriasis, an understanding of the factors that motivate and discourage patient participation in treatment is needed. Data from a large international study were analyzed to gain a better understanding of these factors among patients with psoriasis and/or psoriatic arthritis.<sup>12</sup> A questionnaire was used to evaluate patient perspectives on psoriasis disease burden, treatment adherence patterns, and causes of patient dissatisfaction with treatment. Factors pertaining to the physician-patient relationship that may be relevant to treatment adherence in psoriasis patients also were explored. Results of the US subset analysis are presented here.

## Methods

A qualitative ethnographic pilot study was conducted among patients with psoriasis from Canada, France, Germany, Italy, Spain, the United Kingdom, and the United States to identify appropriate questions to be incorporated into a large-scale quantitative study.<sup>12</sup> For the qualitative study, patients were recruited from preexisting study panels, which were set up using convenience and snowball sampling, and then were observed and unobtrusively filmed and photographed over an initial 4- to 8-hour period. A 2-hour semi-structured interview was conducted within the initial observation period to explore the patient's psoriasis, perceived quality of life, and treatment needs. A more

in-depth follow-up interview was conducted in 25% (14/56) of the patients. Observations were recorded and coded using well-established qualitative research methods. Themes and common language that were noted in the interviews were used to develop a 68-item questionnaire to evaluate patients' perspectives on psoriasis and/or psoriatic arthritis.<sup>12</sup>

The 68-part questionnaire was administered to 3822 adults 18 years and older who had psoriasis and/or psoriatic arthritis.<sup>12</sup> Recruitment strategies included a mix of telephone and online methods, including Web banner advertisements and direct e-mail. Patients who agreed to participate in the study and confirmed they had psoriasis and/or psoriatic arthritis subsequently were invited to complete the online survey (December 2010–January 2011).<sup>12</sup> Analysis of data from the US subset of patients currently taking prescription medicine focused on the physical, psychosocial, and treatment burdens of psoriasis, as well as quality of life.

## Results

Overall, 3822 adult respondents with confirmed psoriasis and/or psoriatic arthritis were included in the international survey; the US subset consisted of 609 respondents. Among the US respondents, 193 reported they were currently taking prescription medicine for the treatment of psoriasis. The mean age (standard deviation) of these respondents (44% men; 56% women) was 49 (14) years.

*Psoriasis Disease Burden*—When asked to rate the impact of psoriasis on their lives using a 10-point scale (1=no impact; 10=extremely high impact), 71% of respondents indicated that psoriasis had a moderate to extremely high impact on their daily life (responses rated  $\geq 5$ ), while 29% described the impact as low to no impact (responses rated  $\leq 4$ ). The most commonly experienced symptoms reported by at least 50% of respondents included scaliness on skin, patches of red raised areas on the skin, dry skin, crusted plaque areas, and moderate itching (Figure 1).

Among the respondents who experienced itching (n=171), 54% reported having trouble sleeping due to their symptoms, and 57% reported difficulty concentrating. Among the respondents who worked (n=30), 46% missed a mean (standard deviation) of 12.0 (15.9) days of work per year because of psoriasis symptoms. Constant symptoms were reported by 43% of all respondents. The psychosocial impact of psoriasis was evaluated according to respondents' agreement or disagreement with attitudinal statements regarding the effects of psoriasis on their lives (data not shown).

*Psoriasis Treatment Burden*—Most of the respondents (83%) reported concurrent use of prescription and over-the-counter products. The majority of

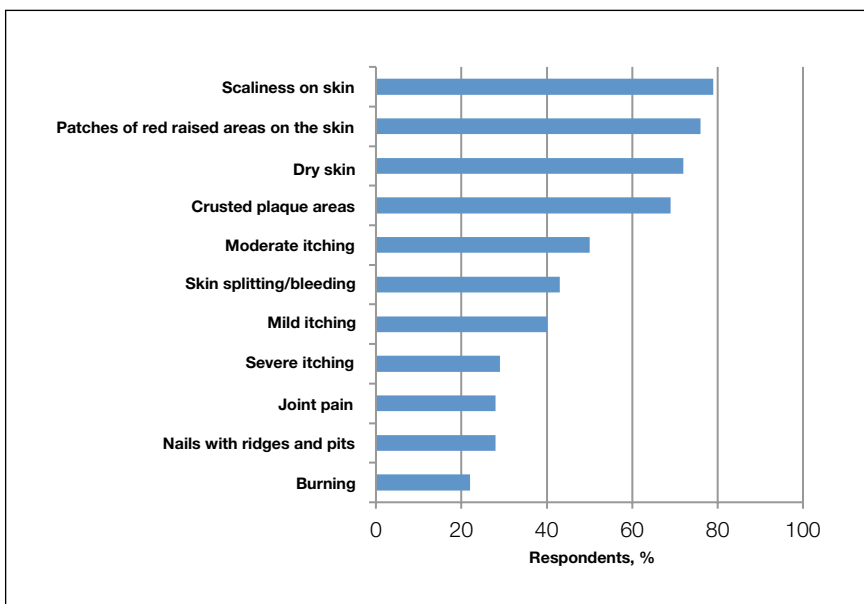
respondents (88%; n=169) were using prescription topical treatment. Of these respondents, 48% of the subset (n=167) responding to the question on whether they were taking their prescription topical medicine according to their physician's exact instructions reported being completely adherent. A large proportion of respondents agreed with positive attitudinal statements pertaining to treatment burden (Figure 2).

Expectations for medications were high, as indicated by respondents' agreement with the statements that their psoriasis treatments are expected to work

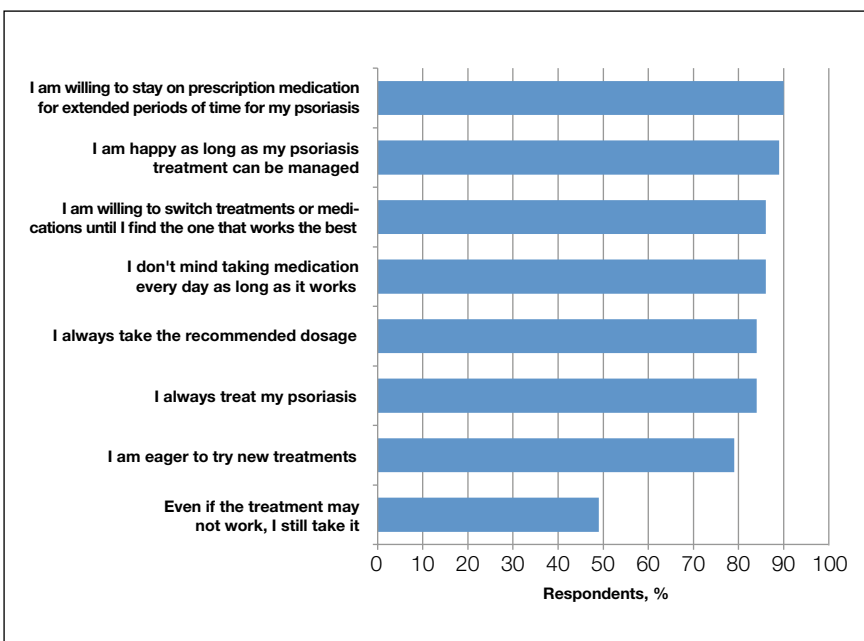
quickly (80%) and that a new medication should provide a cure (58%). Seventy-six percent of respondents disagreed with the assertion that all prescription or over-the-counter creams work the same. Twenty-three percent of respondents agreed with the statement that psoriasis treatments never work.

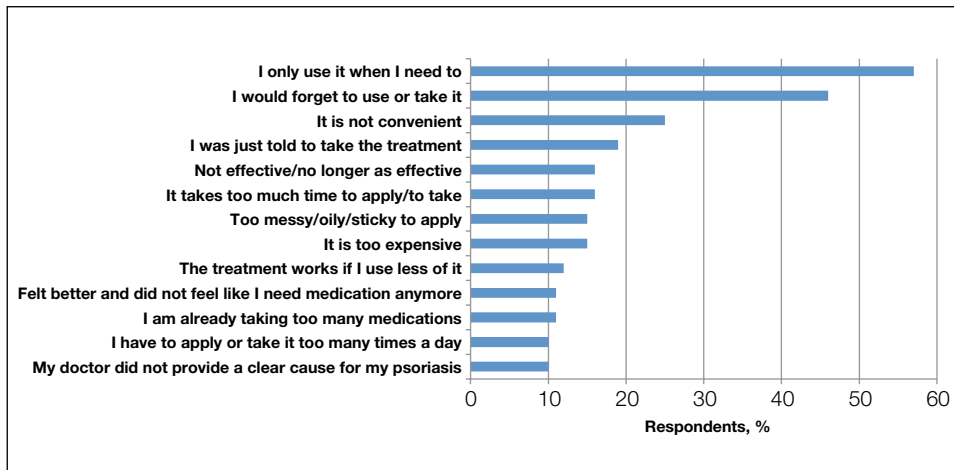
Among nonadherent respondents (n=86), the most common nonadherent behaviors included using the medication only when needed (57%) and forgetting to use or take the medication (46%)(Figure 3). A large percentage of respondents (60%) were fearful of side effects of prescription treatments, and 42%

**Figure 1.** Symptoms of psoriasis experienced at least occasionally in patients currently taking prescription medicine (N=193). Symptoms experienced less than 20% of the time are not shown.



**Figure 2.** Attitudinal statements pertaining to treatment burden (N=193).





**Figure 3.** Reasons for nonadherence to prescription topical psoriasis medication (n=86).

reported avoiding prescription medication unless it was absolutely necessary.

*Relationships With Health Care Professionals—* Among the respondents who answered the question about whether they were currently seeing a physician for their psoriasis (n=189), the primary reasons reported for the initial visit were to obtain a diagnosis (56%), to get symptomatic relief (54%), and to receive consultation about the spread of their psoriasis (50%). In some cases, the delay in seeking treatment could be attributed to patient-related factors such as mistaking psoriasis symptoms for another condition (reported in 44% of respondents).

The majority of respondents were currently under the care of a dermatologist (65%) and/or family practitioner (47%) for their psoriasis and returned for follow-up every 2 to 6 months (62% with dermatologists; 62% with family practitioners). The majority of these respondents (n=189) agreed that their physician gave them clear instructions on how to use their psoriasis medication (88%), that they felt comfortable discussing recommendations with their physician (84%), and that their physician had helped them a lot with managing their disease (75%). Additionally, 86% felt that their physician took the time to listen to what they had to say; however, approximately 29% of respondents said that no one helped them with their psoriasis, 26% felt that their physician did not tell them what to expect from treatment, 25% said that their physician did not take their psoriasis very seriously, and 18% found it difficult to talk to their physician about psoriasis.

## Comment

In this study, 71% of respondents reported that their psoriasis had a moderate to extremely high impact on their daily life. In a survey conducted by the National

Psoriasis Foundation in 2009 of 422 patients with psoriasis and psoriatic arthritis, up to 60% of respondents considered psoriasis to be a large problem in their daily life.<sup>13</sup> The greatest unmet needs associated with topical psoriasis treatment in this study included fewer side effects, more rapid onset of action, and increased efficacy.

Adherence to the prescribed treatment regimen is fundamental to optimal therapeutic outcomes.<sup>4,9,14</sup> A variety of factors contribute to successful adherence to prescribed psoriasis medications. Self-reported adherence is higher when patient satisfaction is strong and quality of life is improved.<sup>4,15</sup> In this study, respondents indicated they were willing to be adherent with their medications, as long as the treatment was effective and well tolerated and their psoriasis was well managed. Respondents were eager to try different medications or continue switching medications in pursuit of improved efficacy. Treatment adherence is influenced by factors such as efficacy and safety of the medication, type of treatment formulation, dosing frequency, and cost.<sup>4,11,16</sup> Respondents in this study identified use of their medication only when needed, forgetfulness, and inconvenience as the top 3 reasons for lack of adherence to medication. Approximately 50% of respondents cited using the medication only when they deemed it necessary and forgetfulness as reasons for nonadherence. Similar to prior reports,<sup>4,11,16</sup> this study identified efficacy, treatment application time, type of formulation, and cost as factors contributing to lack of adherence.

Topical medications for psoriasis are available in various formulations to accommodate patient preferences. Many patients prefer products that are less messy.<sup>11</sup> Traditionally, ointments have been considered to be more efficacious than creams, providing an additional benefit for dry cracked skin; however,

patients may consider the greasiness of ointments to be a drawback.<sup>11,17</sup> In this study, 15% of respondents attributed their lack of treatment adherence to a product that was too messy/oily/sticky to apply. It is prudent to prescribe a treatment formulation that the patient is satisfied with and that he/she is most willing to use.<sup>18,19</sup>

Treatment frequency and duration also are important factors in ensuring patient adherence. Frequency of application had an impact on treatment adherence among respondents in the current study. Ten percent of respondents reported that applying or taking a medication too many times a day contributed to their nonadherence. In a study of 294 patients who were being treated for psoriasis, those who were prescribed a once-daily treatment regimen were nearly twice as likely to adhere to treatment as those on a twice-daily regimen (82.3% vs 44.0%).<sup>20</sup> Treatment adherence also declines with prolonged duration of treatment.<sup>9</sup> New approaches are needed to facilitate better adherence as a regular behavior in patients' lives.

The financial burden of treatment also needs to be considered when choosing a treatment regimen. Cost-conscious patients may alter their medication administration in an effort to lower the expense by reducing the dosing frequency or stopping treatment altogether.<sup>6</sup>

This survey also provided insight into specific aspects of the physician-patient relationship that can affect patients' adherence to medication and their perception of the disease burden and treatment. This survey confirmed that psoriasis patients want to learn more about their disease and how to treat it. Treatment results may be improved if patients visit physicians whom they trust.<sup>16,21</sup> A physician's interpersonal skills (eg, ability to show empathy, answer questions, provide explanations) have been shown to promote trust and have a positive effect on treatment outcomes.<sup>21</sup>

This survey was limited by the subjectivity of the content, though a large volume of data was collected. The patient population was self-selected, which introduced the possibility of selection bias. Patients may have been motivated to participate in the study because they were dissatisfied with the relationship they had with their health care professional. The online format was convenient but did not permit respondents to obtain clarification regarding specific questions. The attitudinal statements that respondents were asked to agree or disagree with may have inherently led to recall bias. Finally, the survey activity did not include any follow-up questions, which might have helped to capture changing perceptions as the disease and its treatment persisted.

## Conclusion

The disease and treatment burdens of psoriasis that this survey revealed serve as a reminder to clinicians of the factors they should try to address in managing their patients. When prescribing topical treatments, it is important to encourage patients to use the medications correctly and consistently, which will likely contribute to effective and sustained control of the psoriasis.<sup>9</sup> It also is important to set realistic expectations about treatment outcomes and to educate patients about possible adverse events. These efforts will likely help improve the results of treatment, as well as encourage adherence and foster a positive physician-patient relationship. Building a collaborative relationship with patients entails setting and meeting patient expectations in the selection of an effective treatment regimen.<sup>15,22</sup>

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