



# The Disruptiveness of Itchiness from Psoriasis: A Qualitative Study of the Impact of a Single Symptom on Quality of Life

## ABSTRACT

**BACKGROUND:** Pruritus is the most common symptom of psoriasis, with a significant impact on patient quality of life. In spite of this, the severity, persistence, and overall impact of itchiness has only been rarely formally assessed during standard psoriasis clinic visits. **OBJECTIVES:** We sought to understand the far-reaching impacts of itchiness on the lives of those with psoriasis and their families. **METHODS:** We conducted a qualitative study with five focus groups and 10 semi-structured interviews from August 2018 to January 2019. We enrolled 25 individuals with a diagnosis of at least moderate plaque psoriasis and 11 family members (primarily significant others). Views and experiences were analyzed thematically via content analysis. **RESULTS:** Itchiness considerably impacts those with plaque psoriasis and their families. Our narrative analysis produced three main themes relating to itchiness: the triggers of itchiness, including climate, emotions, and behaviors; the physical consequences of itchiness, including disruption of emotional well-being, sleep disturbance, and daily activities; and the prevention and treatment strategies used to alleviate itchiness. **CONCLUSION:** Itchiness impacts the quality of life in those with psoriasis and their family members. We strongly urge clinicians to inquire about and monitor the severity and impact of itchiness in psoriasis patients.

**KEY WORDS:** Psoriasis, itchiness, pruritus, qualitative analysis, relationships, quality of life, therapeutics, focus groups, biologics, symptoms, triggers, prevention

by VANINA L. TALIERCIO, MD, MS; ASHLEY M. SNYDER, MPH; LISA B. WEBBER, BS; ADELHEID U. LANGNER, BS; BIANCA E. RICH, BS; ABRAM P. BESHAY, MD; DOMINIK OSE, MPH, DRPH; JOSHUA E. BIBER, MS, MBA; RACHEL HESS, MD, MS; JAMIE L. W. RHOADS, MD, MS; and AARON M. SECREST, MD, PhD

*Drs. Taliercio, Beshay, Rhoads, and Secrest, Ms. Snyder, and Ms. Webber are with the Department of Dermatology at the University of Utah in Salt Lake City, Utah. Ms. Langner and Ms. Rich are with the School of Medicine at the University of Utah in Salt Lake City, Utah. Mr. Ose is with the Department of Family and Preventative Medicine at the University of Utah in Salt Lake City, Utah. Drs. Hess and Secrest, Ms. Snyder, and Mr. Biber are with the Department of Population Health Sciences at the University of Utah in Salt Lake City, Utah. Dr. Hess is also with the Department of Internal Medicine at the University of Utah in Salt Lake City, Utah.*

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Psoriasis is a chronic inflammatory disease affecting 2 to 3 percent of the American population.<sup>1,2</sup> Psoriasis mainly affects the skin and joints and is associated with comorbidities like cardiovascular disease and metabolic syndrome. Psychosocial comorbidities, including psychological distress, stigmatization, social isolation, and physical dysfunction, are also well recognized by the literature.<sup>3–5</sup>

The prevalence of itchiness in psoriasis is greater than 70 percent.<sup>6–9</sup> Dermatology textbooks and residency programs identify itchiness as a common symptom of psoriasis, but the debilitating nature of this symptom is often not discussed. Recent work on the quality of life of psoriasis has identified itchiness as a critical negative factor of overall well-being.<sup>6,10</sup>

Despite its near ubiquitous presence in psoriasis, the degree of itchiness and its consequences on patients and their families is incompletely assessed in daily practice, if at all. The severity of itchiness is not strongly

correlated with overall clinical disease severity.<sup>6,11,12</sup> To date, most studies on itchiness have been quantitative, lacking a qualitative aspect when assessing patients' experiences with itchiness. Our study aims to capture the experiences of patients suffering with this symptom and to understand the impact of itchiness on quality of life and relationships in both patients with psoriasis and their loved ones.

## METHODS

**Study design.** Using the skills of a trained facilitator (D. O.), we carried out five focus groups and 10 semi-structured one-on-one interviews with patients with psoriasis and their family members between August 2018 and January 2019. The study was approved by the University of Utah institutional review board (#102556).

**Participants and setting.** Participant numbers were determined *a priori* and selected

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**CORRESPONDENCE:** Aaron M. Secrest, MD, PhD; Email: aaron.secrest@hsc.utah.edu

to provide a sample size large enough to reach thematic saturation. Of 61 individuals invited to participate, 36 accepted, including 25 patients with psoriasis and 11 family members. We reached thematic saturation from these groups, whereupon no further new information was gained. All participants were at least 18 years of age, spoke English, and were recruited from the University of Utah Health Psoriasis Clinic either through referring physicians or by review of the electronic medical record. Those identified were then called on the phone and invited to participate. To broaden the representativeness of participants, we selected patients of varying ages, sexes, sexual orientations, and current disease status (ranging from no active disease [on treatment] to severe disease). The family members recruited were ideally a spouse/significant other (n=9), but also included two parents, one adult daughter, and one adult sister—each of whom lived under the same roof as their loved one with psoriasis.

All participants provided verbal consent for study inclusion to one of the investigators (V. L. T.) during recruitment and were subsequently provided with written consent forms to sign and the opportunity to ask questions prior to starting the focus group/interview. Anonymity and confidentiality were preserved throughout the study. All psoriasis patients had received a diagnosis of moderate-to-severe plaque psoriasis and many were exhibiting good disease control at the time of participation.

**Data collection.** Two lead investigators with experience in qualitative methods and psoriasis developed a semi-structured interview guide with open-ended questions, intending to explore participants' experiences with itchiness, pain, sleep quality, and personal relationships due to psoriasis in greater depth. Themes and interview questions were based on theoretical considerations, expert discussions, and an extensive literature review in accordance with the principle of theory-driven qualitative research. Based on Carl Rogers' person-centered approach,<sup>13</sup> the investigators used an integrative model of patient-centeredness to guide the development of the guidelines.<sup>14</sup>

All focus groups and interviews were audio-recorded and transcribed verbatim. Interviews lasted 15 to 35 minutes, and focus groups lasted 60 to 70 minutes. Sociodemographic data were collected via paper survey.

**Data analysis.** Qualitative content analysis was centered around the following general request: "Tell me about the itchiness of your (or your loved one's) psoriasis" (Table 1). Data were pulled from the transcribed texts, coded, and analyzed using a systematic content analysis approach for categorizing questions asked by moderators. Initially, a preliminary category system (search-grid format) based on themes and questions from the interview guide was created. Next, transcripts were analyzed independently by two researchers to identify relevant key issues within each preliminary category. Thereafter, key findings were discussed within the research team to discuss whether a new code found during analysis should be added to the codebook, and the preliminary category system was adapted according to the nature of additional information not fitting into the initial category system. Next, all critical issues were labeled as codes, organized into main categories and subcategories. Each code was clearly defined and linked with samples from the transcriptions. Within our multiprofessional research team, all aspects were discussed and further modified until a consensus of the final category system was achieved. Final quotes included in this paper were edited for better clarity to remove potential errors produced in the original transcripts. No changes were made to the meaning of the quotes. Category labeling was performed using the NVivo version 12 software program (QSR International, Doncaster, Australia).

## RESULTS

Ten interviews and five focus groups were conducted involving the 25 patients with psoriasis and 11 family members. Participants with psoriasis ranged in age from 22 to 82 years (median: 46 years) and relatives ranged in age from 28 to 72 years (median: 38 years) (Table 2). Ten participants with psoriasis identified as female and 15 identified as male, while seven family members identified as female and four identified as male. We found itchiness to be one of the most common and bothersome symptoms of active psoriasis. From the interview data, we identified three main categories/themes: 1) triggers of itchiness, 2) physical consequences of itchiness, and 3) prevention and treatment of itchiness.

**Triggers of itchiness.** Participants

**TABLE 1.** Interview questions about itchiness in psoriasis

Please tell me more about the itchiness of your psoriasis.
What time of day is your psoriasis most itchy or bothersome?
What helps when itchiness is the worst? What provides relief?
Who helps treat your psoriasis? How often do family members help apply creams/ointments?
How does itchiness affect your sleep? The sleep of your significant other?
How does it affect your bedroom (sexual) relationship? Have you had to sleep in a separate bed from your significant other due to itchiness?
How does itchiness affect your mood? How does it affect the mood of your loved ones?
Which other areas of your life are affected by your psoriasis's itchiness?

identified several factors that were perceived as exacerbators or triggers of itchiness, which we subcategorized into the following four themes: climate, self-care, lifestyle activities, and mental and behavioral (Table 3). Climate referred to arid conditions and hot weather, which both increased itchiness. Participants mentioned how moving to a state with high temperatures and low humidity, such as Utah, worsened the symptoms of their psoriasis: "Since I've been here, it's been terrible because of the dry climate. When I lived in the East and the South, I didn't have as big a problem because there's so much moisture in the air, but this is terrible." Constant indoor heating used during winters in the western United States leads to increased hot and dry indoor air, which can exacerbate the itchiness: "I think the winter is worse because you're indoors more with the heaters going and the air is drier inside."

The other three trigger subthemes related to activities of daily living. Participants recognized that normal daily activities of self-care, like bathing/showering, exacerbate their itchiness: "I've noticed it, like if I get out of the shower [and] it's really dry, [my skin will] start to burn." Fragrance-containing products, which are increasingly ubiquitous, were also identified as a trigger. Conversely, failing to persevere with a daily skincare routine also exacerbated itchiness.

For our participants, the simple act of getting dressed is not always so simple. Participants frequently altered their daily clothing choices to prevent itchiness, often at the expense of

**TABLE 2.** Demographic characteristics of the study participants

DEMOGRAPHIC CHARACTERISTICS	PERSONS WITH PSORIASIS	FAMILY MEMBERS
Basic characteristics		
Number	25	11
Age in years at time of interview/focus group, median (min–max)	46 (22–85)	38 (28–72)
Female sex, n (%)	10 (40)	7 (64)
Psoriasis duration in years, median (interquartile range)	18 (13–30)	---
Race/ethnicity, n (%)		
White or Caucasian	23 (92)	9 (82)
Asian, Pacific Islander, and Other	1 (4)	0 (0)
Latino/Hispanic	1 (4)	2 (18)
Education, n (%)		
High school	12 (48)	8 (73)
Some college	4 (16)	0 (0)
Bachelor's degree	8 (32)	0 (0)
Master's degree or higher	1 (4)	3 (27)
Marital status, n (%)		
Married or domestic partnership	13 (52)	10 (91)
Single, widowed, or divorced	12 (48)	1 (9)
Employment status, n (%)		
Employed	17 (68)	6 (55)
Unemployed/stay-at-home parent	1 (4)	4 (36)
Unable to work	4 (16)	0 (0)
Retired	3 (12)	1 (9)

maintaining their style: "One of the things that drives me crazy is when I take off my socks at the end of the day and the itchiness goes. It's really odd." Certain fabrics (e.g., wool) aggravated the itchiness, so many participants chose natural cotton as their preferred fabric. Itchiness also interrupted patients' ability to exercise, as exercise made them hot and sweaty, which led to itchier skin: "When I'd go to the gym or exercise or something like that, it's like my scalp...or somewhere that I have spot on...is super itchy until I take the clothes off and take a shower."

Regarding mental and behavioral triggers, emotional stress both caused and exacerbated itchiness as well as contributed to psoriasis flares. Many patients found that stress was associated with psoriasis flares and worsening itchiness: "When I'm stressed, I feel much more itchy." In an attempt to relieve itching, patients frequently got caught in itch-scratch cycles, which could last for days.

**Consequences of itchiness.** Participants commonly reported several reasons why their itchiness was so bothersome (Table 4). First,

itchiness leads to physical damage. Scratching the itch often caused bleeding, flaking, and open sores; worsened existing wounds; and increased the chances of skin infection. Moreover, self-consciousness about blood-stained clothing and flakes everywhere as well as scratching in front of others all negatively influence emotional well-being, relationships, sleep, and daily activities.

Itchiness leads to mood instability, anger, and depression and prevents patients from relaxing. Family members reported that those with psoriasis would become much more sensitive to comments when they were itchy and were "unpleasant to be around." Having a social life was an "uphill battle" for many of them. Some expressed frustration about a loved one's criticism of their scratching, which psoriasis sufferers felt was out of their control: "S\*\*t gets everywhere, like armchairs—it's worse than a dog shedding. [My wife] asks me why I [scratch] it, but it's because it f\*\*\*ing itches. Why can't you just understand? I'm sorry I'm making a mess. She asks, 'Why don't you go to the doctor?' I have! Nothing works."

To cope with embarrassment, several participants with psoriasis chose to isolate themselves and even avoid intimate relationships: "If I am itching and sore and embarrassed, I do not socialize with anybody, not even my daughter and my grandson. I lock myself in a room." Patients and significant others both stated that, along with being self-conscious of active psoriasis on the skin, especially in the genital area, the physical discomfort and embarrassment from scratching decreased both the libido and frequency of sex. However, most family members were empathetic and supportive.

Itchiness not only limited or halted healthy social relationships but also restricted daily activities. Itchy psoriasis participants did not feel comfortable leaving the house; many stopped exercising, quit swimming or going to the gym, and did not enjoy being outdoors anymore. Other daily activities, such as laundry and vacuuming, became more frequent and time-consuming.

Those with more severe itchiness also had greater difficulty sleeping: "it seems to me, instead of getting eight hours [nightly], I might get three hours here and then come home and take a nap. And yeah, it seems like I can't remember the last time I slept eight hours in a row." Itchiness sometimes affected family members' sleep as well. For example, a mother of a child with psoriasis stated that her daughter woke her up 3 to 4 times nightly screaming due to itchiness. Insomnia was common among those with severe itchiness and often disrupted planned daily activities. For example, a young man with psoriasis had difficulty sleeping and struggled with concentrating in school when he was itchy.

**Prevention and treatment of itchiness.** Several focus group participants highlighted the importance of preventative measures (Table 5). One strategy was consistency with a daily skincare routine of emollients throughout the day. Some started taking short showers/baths and changing to "natural" skin products to minimize the itchiness. Several individuals removed foods from their diets that they associated with flares and/or decided to follow a new diet to try to minimize symptoms. To cope with stress, mindfulness and anxiolytics were commonly employed.

Family members were frequently enlisted in psoriasis management to apply moisturizers

**TABLE 3.** Triggers of itchiness in patients with psoriasis

CATEGORY	RESULTS	QUOTES
Climate	Dry	"The itchiness? He might get it sometimes, like in the winter, part of that dry winter itch thing." FG5 FM1 93–94*
	Hot	"I do not know if it's the blankets, the sheets, or what it is; it gets hot and is worse." IT1 P 53–54
Self-care	Showers	"Yeah, I couldn't shower at night. I'd have to do it in the morning because, if I did it at night, my skin would dry out and I'd be up all night scratching." FG2 P1 162–163
	Decreased self-care	"You really need to dress warm and always put lotion on, multiple times a day [. . .] If I do not take care of [my skin], it gets very itchy." IT3 P 28–29
	Chemicals (fragrance, products)	"If you use any kind of fragrance, it will make [the itch] worse." IT4 P 46
Lifestyle/activities	Sweat	"I don't itch now, but when I did [. . .] like, after you sweat or whatever you're doing, when your skin gets dry, then you itch really bad." FG1 P1 273–275
	Exercise	"It is more itchy throughout the day if I start sweating [. . .] or like if you are going out to exercise or something, it is more itchy to me." IT4 P 40–42
	Clothing fabrics	"I usually wear cotton [. . .] but I think the nylons probably do a little bit of [the itchiness]." FG1 P1 292–293
Mental/behavioral	Stress	"I feel like, when I'm stressed, I feel much more itchy." FG3 P3 160
	Self-induced via the itch-scratch cycle	"When he needs to scratch, he will start bleeding, and he will say, 'Oh, that's better.' And, within minutes, he is trying to scratch it even more while he is bleeding, and it itches so bad." FG4 FM1 214–215

FG: focus group; FM: family member; P: participant with psoriasis; IT: interview

\*Study nomenclature: Interview type, person speaking, transcript lines.

and topical treatments in hard-to-reach places. When the affected family member was a child, itchiness greatly disrupted family dynamics, as that child needed extra attention, creating sibling jealousy and exacerbating sibling rivalry.

Those with psoriasis described taking individualized approaches to stop their itching. Several regularly scratched their skin until it was painful, because the symptom of pain was easier to deal with than itchiness. Others used extreme shower temperatures to overwhelm the nerves and control the itchiness. Participants listed topical moisturizing creams, oils (coconut or hemp seed), quaking aspen powder, topical steroids, topical antihistamines, and oat baths as useful in treating itchiness. Proactively managing their psoriasis was a common theme. Those with psoriasis described a willingness to "do anything" to decrease itchiness. Self-control techniques, occupying/distracting their hands, and covering the plaques (with clothing or wraps) were all mentioned as strategies. Oral sleep aids, such as oral antihistamines, were regularly used by some.

However, the best treatments for itchiness were prescription medications with success at clearing psoriasis, particularly systemic agents like biologics, oral immunomodulators, and light therapy. With treatment success, those with psoriasis frequently dichotomized their lives into times before and after effective treatment.

## DISCUSSION

Understanding the impact of itchiness and how it disrupts so many aspects in the lives of psoriasis patients is fundamental to providing effective patient-centered care. Our study was designed to provide dermatologists with an in-depth look at the degree to which itchiness disrupts the lives and relationships of those with psoriasis and their families. When we asked those with psoriasis what bothers them most about their disease, itchiness was the most frequently cited symptom. Indeed, itchiness affects 70 to 90 percent of patients with psoriasis,<sup>5–9</sup> and relief from itchiness is a primary treatment expectation in patients with psoriasis.<sup>15</sup>

In our study, itchiness was described as a continuous state that fluctuates in intensity. In terms of triggers, climate (e.g., hot, dry weather), mental and behavioral factors (e.g., stress, self-induced itch-scratch cycle), lifestyle/activities (e.g., exercise, clothing), and self-care activities precipitate and exacerbate the itchiness. Identifying and avoiding triggers is a primary coping strategy for itchiness.

In addition, participants deal daily with the consequences of itchiness. We found that itchiness not only leads to physical damage of the skin but also negatively impacts patients' emotional wellbeing, relationships, daily activities, and sleep. Remröd et al<sup>16</sup> noted that patients with psoriasis and severe itchiness

have high depressive scores. However, the relationship is unclear—does itchiness cause depression, or does depression increase the perception of itchiness?<sup>17</sup> Sadness, anger, irritability, and emotional lability related to psoriatic itch were more commonly described in our study than depression was, but prior associations between these conditions have not been reported.

Prior work has shown that functional limitation and impaired social interactions are two of the most common concerns reported by patients with chronic itchiness<sup>18</sup>; however, little is known about how itchiness actually impairs these issues. We recorded physical and emotional reasons why patients experience functional limitation and social embarrassment related to itching. Patients reported itching causes the need to scratch often, visible skin flaking, blood-stained clothes, and mood instability and depression.

Sexual function and sexual desire decrease with more symptomatic psoriasis.<sup>8</sup> Participants stated that, along with self-consciousness from the visual appearance of active psoriasis and its presence in the genital area, itchiness significantly decreased the libido and frequency of sex. Physical discomfort and embarrassment from scratching also led psoriasis patients to have a more restrictive social life.<sup>12,19</sup>

Eghlileb et al<sup>20</sup> described how patients' psychological distress might influence their



**TABLE 4.** Consequences of itchiness in patients with psoriasis

CATEGORY	RESULTS	QUOTES
Physical	Bleeding/open sores from scratching	"She would, like, scratch herself so bad she'd bleed. She would, like, take a bath, and the bath would be covered in blood. It was bad." FG5 FM2 50–51*
	Infection	"If I scratch them [the plaques] a lot and they bleed, they would sometimes get infected." FG2 P6 160–161
Emotional well-being	Depression	"Honestly, [it makes me] very, very depressed [...] I guess you could say." IT2 P 60
	Labile emotions	"My wife gets mood swings bad. When she is itchy, it's like, 'Stay out of her way!'" FG5 FM1 176
	Anger/short temper	"[I've made] comments like, 'We really need to vacuum, you know [...], not realizing how sensitive he might be about it. And so now, I don't comment about that anymore, and if I see flakes [...]. I feel like I have to be cautious right now, because it's so bad in the house, making those kinds of comments.'" IT5 FM 89–90, 105–106
	Inability to relax	"When I am not active and not doing other things [to take my mind off the itchiness] and at home trying to relax and then I realize how much itching I have going on, and I can't stop, sometimes, the scratching." IT2 P 12–14
Sleeping	Difficulty sleeping	"It generally affects the sleep—it seems to me [...] instead of getting eight hours, I might get three hours here and then come home and take a nap. [...] It seems like I can't remember the last time I slept eight hours in a row. So it definitely [...] affects my sleep." FG2 P3 243–245
	Disturbs loved ones' sleep	"I can't sleep. I got to go to school [in the] morning. I wake up at six o'clock in the morning to be at school by seven. So if I'm up all night [from her scratching], it's kind of hard to go to school and concentrate." FG5 FM2 86–88
Daily activities	Decrease in regular activities	"There [are] a lot of things we used to do [that now] we just can't because she is having pain and itching and she is not comfortable going out with all of the sores and plaques all over her body and bleeding all over everything; and she is not comfortable leaving the house as much anymore, so that has been a big change. [...] We used to do things like taking the kids to a park, a pool, the movies, even going grocery shopping [...] even when we are doing grocery shopping [...], we do it late at night because there are no people there. She is not comfortable being around people, and I can't do it myself [cries]." FG4 FM2 36–39, 41–44
	Excessive cleaning	"You vacuum forever [laugh]." FG2 P2 198
Relationships	Intimate/sexual relationships	M: "Has [psoriasis] ever affected your sex life?" P5: "Only because it was embarrassing. You're like, 'Honey, rub my arm or my whatever.' I mean, it didn't bother him, but it's off-putting." FG1 P5 610–612
	Isolation from others	"If I am itching and sore and embarrassed, I do not socialize with anybody, not even my daughter and my grandson. I lock myself in a room." IT1 P 109–110
	Sadness, sympathy from others	What bothers me the most—I got used to seeing plaques of his psoriasis and everything—but to see him in pain and itching so much that he will bleed, it broke my heart." FG4 FM1 59–60
	Annoyance, anger from others	"C**t gets everywhere, like armchairs. It's worse than a dog shedding. [My wife] asks me why I itch it, but it's because it f***ing itches. [...] Why can't you just understand? I'm sorry I'm making a mess. She asks, 'Why don't you go to the doctor?' I have! Nothing works." FG3 P5 225–228

FG: focus group; FM: family member; P: participant with psoriasis; IT: interview

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loved ones' emotions and increase relationship stress. Their study focused on the disruption of family members' social lives due to the patient's embarrassment of having psoriasis and the time demands related to self-care.<sup>20</sup> While none of our participants expressed these concerns, they described decreased social activity due to those with psoriasis having a negative attitude toward going out and concerns their loved ones had about them contracting an infection from contact with sick people.

Treating the symptoms is as important as treating the skin disease when discussing disease management. Participants were often desperate to find any treatment to alleviate itchiness. Several mentioned that rubbing or scratching produced temporary relief.

However, scratching induces local inflammatory mechanisms, eventually exacerbates the itchiness, and induces new plaque formation.<sup>21</sup> Others preferred to inflict pain on themselves, including extreme water temperatures, as a means of overwhelming the nerves to control itchiness. This behavior can be explained with neurobiology, as itch appears to be under tonic inhibitory control of pain-related signals.<sup>22</sup>

Among the medications used to control itchiness, topical steroids and oral antihistamines (e.g., diphenhydramine) were commonly used. Topical corticosteroids inhibit cytokine activation, decreasing local inflammation and indirectly controlling itchiness<sup>23</sup>; however, their effectiveness varied in our participants. The introduction of

biologic medications for psoriasis was the most life-changing factor participants and family members noted for curbing itchiness, similar to as seen in prior reports.<sup>24,25</sup>

The strengths of this study include a large sample for qualitative research, providing rich, in-depth insights for future clinical interventions and research directions. To collect a wide range of experiences, we included those with a broad range of disease severities as well as their significant others to gain several aspects of the disease's impact. However, our study also has some limitations. Despite the range of patient and family member perceptions and experiences, the study population was recruited from a single tertiary center and might not offer the full diversity

**TABLE 5.** Prevention and treatment methods for itchiness in patients with psoriasis

CATEGORY	RESULTS	QUOTES
Prevention	Moisturizing skin	You want to keep your skin as hydrated as possible."IT4 P 66–67*
	Relaxing (nonmedical)	"Mindfulness of the present moment and just trying to chill out. It can definitely help." FG2 P7 390–391
	Relaxing (medical)	"Doctors just tell me to be less stressed [...] [or] to meditate, and I know I should but it's so hard. [...] I started using cannabis, which is not necessarily helpful in the sense that you can have allergic reactions, but in a larger sense, it has been a blessing to keep it at bay. Anything to keep my stress and anxiety down. [...] that's what I do when I'm trying to fix it on my own, and I'll do anything to see if it works." FG3 P2 159–160, 195–198
	Diet change	"I've cut a lot of things out of our diets just to try to see what will help keep it mellow or what will trigger an even worse flare-up than normal—you never know." FG2 P5 427–429
Coping strategies	Alternative treatments (oats, coconut oil, hemp seed oil, quaking aspen)	"I just put oats in a bag like Grandma used to and put that in a [...] fill a tub, start it with hot water." FG2 P2 625–626 "Coconut cream—so far, that's what she is carrying." IT10 FM 27–28 "Hemp seed oil, yeah. I'll rub it on my skin, and it helps sometimes [...] a little bit." FG2 P4 166–167 "The one other thing that kind of helped me a little bit too was quaking aspen trees. When you rub your hands on the outside of the bark, there is a white fine powder, and I used to put that on there when I was out in the field. [...] It kind of helped with the itching." FG2 P3 484–486, 488
	Inflicting pain	"But I would much rather hurt than itch, and so I do scratch until it hurts and then it doesn't itch anymore. [...] it's easier to deal with the pain." FG1 P1 508–509
	Self-control	"There's never a moment my scalp doesn't itch. I just control myself not to itch it." FG1 P5 294
	Showering (hot or cold water), overwhelming the neural response	"But you just start with a long, hot shower and then you turn it to ice cold, and then you deal with the dry skin from the shower." FG2 P2 331–332
	Keeping oneself busy	"I actually crochet so I don't itch [laugh]." FG2 P4 100–101
Medication to control itch	Antihistamines (hydroxyzine, diphenhydramine) (oral)	"I take Benadryl. Knocks me out. I don't itch for a little while [laughs]. That's what the doctor told me to do." FG2 P4 246–247
	Antihistamines (hydroxyzine, diphenhydramine) (topical)	"I do have a little bottle of spray Benadryl on my nightstand, and I will use that if it really gets intolerable." FG1 P7 513–514
	Steroid creams	"Some of the eczema lotions work pretty well. There is a psoriasis cream that they have over the counter now that works pretty well to take away the itchiness. It does not take [the rash] away completely, but it will take the itchiness away. Cortisone stuff works pretty well." IT4 P 48–51
	Systemic treatment (oral immunomodulators)	"But there's never a time my scalp doesn't itch [throughout the day], [...] which is why I'm doing the methotrexate. I do not want to be on that medicine." FG1 P5 296–297, 299–300
	Systemic treatment (biologics)	"I've had it really super bad, but I was going through a [biologic] study here. And the second time the study came, that's the one that was really good. I don't know what it was called. [...] Now I'm on Humira. But the second one was the one that really changed me. I didn't itch at all." FG1 P1 30–34
	Light therapy	"I am on light therapy now. I do it [twice] a week, and I take methotrexate. I am a different person now. It used to be so much pain and itching; it was really bad. [...] I am so happy. [...] I am 98% clear now." FG3 P3 23–27
	Coal tar shampoo	"[Coal tar shampoo]—it smells bad, [but] it stopped the itch." FG1 P2 326–327
Enlisting loved ones' help	Applying topical treatments	"I was putting creams on her, because she could not get her back mainly. She will close her eyes and start crying, saying, 'Just do it.' She stands up naked, and I am trying to be as fast as I can, just slathering her, you now, with these creams and stuff." IT9 FM 62–64
	Scratching	"She'll say, 'Itch me, scratch my back, scratch me.' I do not like that because there are skin cells all over me [laugh]. So I would find something to scratch her, because I do not like skin cells on me, so when she would say, 'Scratch me, scratch me,' I go find something like a brush." IT9 FM 43–45
	Restraint	"When I'm asleep, my husband will grab my hands [...] [to] stop me from itching when we're sleeping." FG2 P4 537–538
	Encourage adherence/offer support	"I feel so bad. If I could take it away, I would, but I can't. So all I can do is make sure she goes to appointments and she takes the medicine, you know, doing what I can do in a supporting role. With her going to college for the first time [...], I had to let her step up to the plate, be her own advocate, and be responsible for things that mom normally does. I feel my role is more supportive at this point. She calls me a nagger, but you know what, if it involves a medicine, I don't care; I will be a nagger. That's what moms do [laugh]." IT9 FM 76–81
Advice from others	Internet searches	I'll let her research it before she does it, you know, because researching is all about [...] because some treatment might work and sometimes might not work. Some bodies take it and some bodies won't." IT10 FM 103–105
	Soliciting advice from others with psoriasis	"So, these things you're talking about, the topical things you're putting on—is it just like a really thick Eucerin lotion or does it have steroids in it?" FG1 P3 540

FG: focus group; FM: family member; P: participant with psoriasis; IT: interview

\*Study nomenclature: Interview type, person speaking, transcript lines

of views of a broader psoriasis population, including those with milder psoriasis or nonplaque psoriasis.

## CONCLUSION

We found that itchiness negatively impacts the quality of life of both those with psoriasis and those with whom they live. In our experience, patients' perception of itchiness is not routinely assessed in clinical practice. Often, only physician assessments of psoriasis severity (e.g., body surface area, psoriasis area, and severity index) are conducted during the clinical visit, which can result in suboptimal management when patient-reported and physician-reported outcomes differ.<sup>26–28</sup> Evaluating and addressing the itchiness, quality of life impact, and psychological health of patients should be included systematically in daily practice to provide comprehensive care and improve the overall well-being of patients.<sup>29,30</sup>

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