BIODERMA
LABORATOIRE DERMATOLOGIQUE

BOSS QUESTIONNAIRE

A new perspective for the evaluation of the
Burden of Sensitive Skin

BoSS

burden of sensitive skin

EDITORIAL

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Sensitive skin syndrome (SSS) is a common skin condition, defined by the occurrence of **unpleasant sensory perceptions, such as stinging, burning, tingling, or itching** in response to physical, thermal, chemical, hormonal, psychological, or other stimuli that normally do not provoke such sensations. **As its symptoms are mainly subjective, sensitive skin may have a normal appearance or be accompanied by erythema.**

There is **no international consensus to date on how to assess and diagnose SSS**, as subjective methods are specific but show low reproducibility.

To overcome this issue, several questionnaires have been developed in recent years. These patient-reported scales aim to assess sensitive skin and how it affects patients' quality of life. Among those tools, only a handful have been validated. One of these validated questionnaires is the **Burden of Sensitive Skin (BoSS), developed in 2018 following a rigorously validated methodology**.

The BoSS questionnaire allows patients to self-assess the impact of their SSS on their daily life, which is **associated with the severity of the disease**. In consequence, studies conducted with it showed that **the BoSS questionnaire may also be considered as a good diagnostic tool for SSS**.

The present document explains **the development of the BoSS questionnaire**, as well as a **summary of its use during various interesting research conducted internationally**.

Additional investigations are needed in larger and more diverse populations to improve our understanding of SSS. The BoSS questionnaire is destined to evolve and adapt accordingly.

CREATION OF BoSS QUESTIONNAIRE

Development and validation of a new tool to assess the Burden of Sensitive Skin (BoSS).

The BoSS questionnaire was developed in 2018 in collaboration with Prof. Laurent Misery. The aim was to allow patients to self-assess the impact of their sensitive skin on their daily life.

To complete this task, a multidisciplinary working group was formed. They followed standardised methodologies relevant for quality of life assessment.

CONCEPTION

- Literature review + dermatologists and psychologists interviews with 16 patients with sensitive skin.
- Semi-structured preliminary questionnaire *(15 items)*.

DEVELOPMENT

- Patients with self-declared sensitive skin, from the Bioderma Club *(n = 6474)*.
- Refined version of the questionnaire *(14 items)*.

VALIDATION

- Patients with self-declared sensitive skin, drawn from a sample representative of the general population *(n = 4614)*.

BoSS QUESTIONNAIRE

14 items covering 3 dimensions of sensitive skin's impact: self-care, daily life and appearance.

Misery et al., JEADV, 2018

THE BoSS QUESTIONNAIRE

For each of the following statements, choose from one of the 5 answers given. Reply as spontaneously as possible by thinking of your own situation in the last week. There are no right or wrong answers.

	NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
I have to consider my sensitive skin when I buy my clothes and underwear.					
I have to consider my sensitive skin when I buy cosmetics.					
Having sensitive skin stops me from eating certain foods.					
I have given up hobbies, outings and holidays because of my sensitive skin.					
I find it hard to tolerate air conditioning because of my sensitive skin.					
I find it hard to cope with urban pollution because of my sensitive skin.					
Blushing for no reason or after I become emotional embarrasses me when I am with other people.					
My face often looks very red in photographs so I avoid appearing in them.					
It is impossible for me to wear jewellery (bracelets, neck chains or chain bracelets) that is not made of gold.					
My face turns red when I exercise, walk quickly or climb stairs.					
Wearing woollen clothes close to my skin is unbearable.					
I have to consider my sensitive skin when I choose my clothes in the morning.					
I have to choose my own washing powder because some washing powders can cause a skin reaction.					
When I sleep away from home, I take my own soap and toiletries with me because I cannot use other people's.					
**Rating of each question*	0	1	2	3	4
**TOTAL SCORE*					

**These lines do not appear on the questionnaire filled by respondents.*

TOTAL SCORE: IMPACT OF SENSITIVE SKIN ON THE PATIENT'S DAILY LIFE

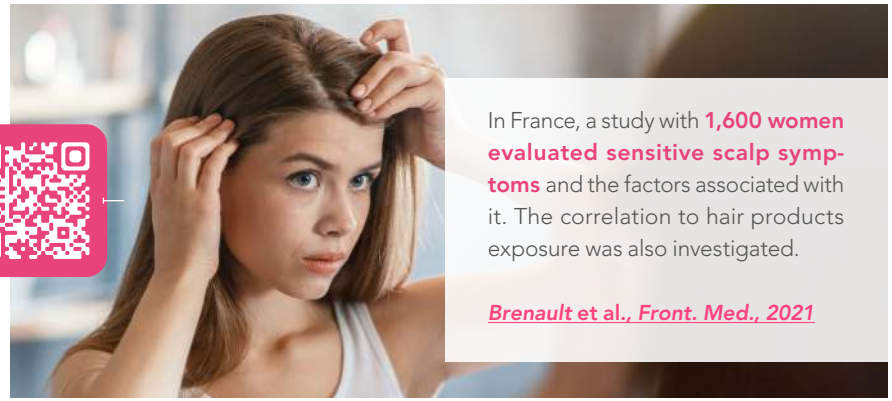
0: NO IMPACT ← → **56: MAXIMAL IMPACT**

BoSS IN USE

Since it was developed in 2018, the BoSS questionnaire has been used in several clinical studies:

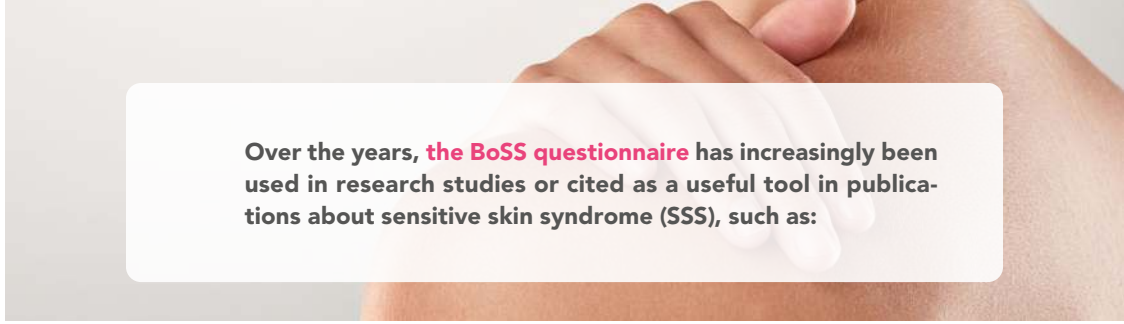
Two studies including a total of over **4,000 adults estimated the prevalence of sensitive skin in China**, its impact on the quality of life and several associated and/or triggering factors.

Chan et al., JEADV, 2020



In France, a study with **1,600 women evaluated sensitive scalp symptoms** and the factors associated with it. The correlation to hair products exposure was also investigated.

Brenault et al., Front. Med., 2021



Over the years, the BoSS questionnaire has increasingly been used in research studies or cited as a useful tool in publications about sensitive skin syndrome (SSS), such as:

A review of SSS, its pathophysiology, diagnostic and assessment tools available at the time, as well as of management or treatment options.
Do et al., Am. J. Clin. Dermatol., 2020

A study comparing the characteristics of 160 subjects with and without symptomatic sensitive skin, and using the BoSS to validate the Sensitive Scale-10 (SS-10) questionnaire.
Legeas et al., ActaDV, 2021

A study combining the BoSS questionnaire with an instrumental method, the current perception threshold, as diagnostic tools for SSS. The relationship between their BoSS scores and the 100 subjects' smoking status, phototype and skin type was also investigated.
Polena et al., ActaDV, 2021

An analysis of the psychological factors, both as causes (triggering and/or worsening) and as consequences of SSS.
Farage, Cosmetics, 2022

The BoSS questionnaire has also been used to evaluate the efficacy of dermocosmetics products:

A split-face study to assess the efficacy of a serum to reduce symptoms of rosacea associated with erythema and sensitive skin.

Berardesca et al., Clin Cosmet Investig Dermatol, 2020

A clinical study in China to assess the efficacy of a probiotic lotion to reduce sensitive skin symptoms and burden.

Cui et al., Sci Rep, 2023

BoSS FOR YOU

The BoSS questionnaire is now available in English, French, Spanish, Portuguese (Portugal and Brazil), Polish, Thai and Chinese.

DOWNLOAD A COPY OF THE QUESTIONNAIRE HERE
TO BETTER ASSESS YOUR PATIENTS QUALITY OF LIFE

WHAT'S NEXT FOR BoSS?

The BoSS questionnaire is designed as a tool to help you diagnose and assess the impact of sensitive skin syndrome (SSS) on your patients' quality of life.

As the understanding of SSS evolves, so does the BoSS questionnaire, to keep it relevant in your daily practice.

LET US KNOW HOW YOU WOULD USE IT FOR YOUR PATIENTS!
FOR FURTHER INFO, PLEASE CONTACT US AT

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