

Scalp pruritus in women: the situation in the United States versus the rest of the world

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1 Rational

Pruritus has been extensively investigated in various studies, consistently revealing a prevalence of around 40% in the general population and significantly higher rates among individuals with dermatological conditions.

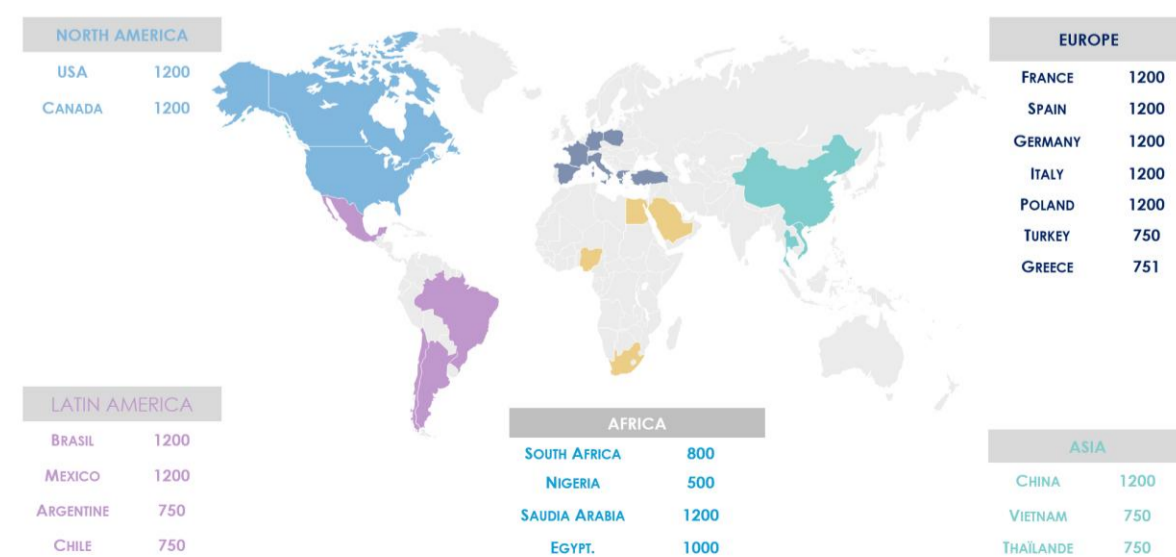
These studies have also indicated that the prevalence of pruritus tends to rise with the age of the population. However, scalp pruritus [SP] is likely to be underestimated and has not been thoroughly assessed in large international cohorts.

Our study aimed to address this research gap and focuses on American women [AW] compared to the Rest of the World [RoW]

2 Methodology

We surveyed a representative sample (constructed according to the quota method) of 20,000 women aged 18 to 55 in 20 different countries. We asked these women about the presence of pruritus on their scalp, but also about burning sensations and the possible presence of scalp pain. An assessment of sensitive skin was also carried out.

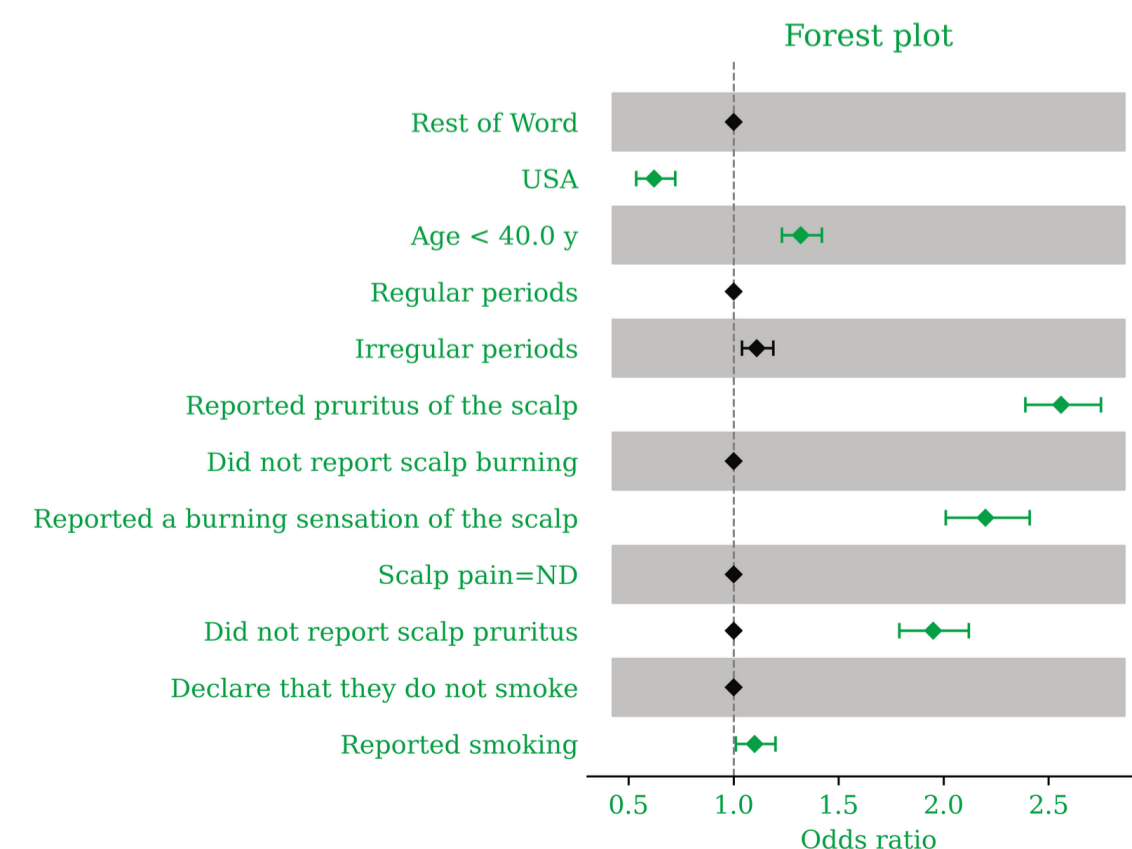
For the American Women, multivariate logistic regression was used to assess the relationship between the presence of scalp pruritus and other unpleasant sensations such as pain and burning, as well as age, the presence of sensitive skin



3 Results

A total of 1,200 AW were interviewed (18,801 in the rest of the world [RoW]). The AWs exhibited slightly elevated age (36.96 ± 10.68 vs. 36.14 ± 10.45 years), and 38.33% of them reported irregular menstrual cycles, compared with 37.8% in the RoW. The prevalence of SP was 41.92% for AW women, compared with 49.25% for RoW women ($p < 0.001$).

Among women with SP, there was no significant difference in mean age between the AW and RoW groups [AW: $35.25 (\pm 10.33)$ vs. RoW: $35.11 (\pm 10.22)$]. No difference was observed in the prevalence of self-reported sensitive skin. The prevalence of scalp pain or burning sensations associated with scalp pruritus was less frequent in the AW group (35.7% and 31.6%, respectively) compared to the RoW group (48.4% and 46.2%, respectively; $p < 0.0001$). In the American population, women with MS were younger than women without SP ($35.25 (\pm 10.33)$ years vs $38.2 (\pm 10.77)$ years) and were more likely to have irregular periods (43.94% vs 34.29%). One in two respondents (53.48%) indicated that they had sensitive skin, with one in three (33.14%) of those without SP also reporting this. The rate of depression was 53% versus 46% ($p < 0.0001$). The prevalence of scalp burning and pain was 31.61% and 35.79%, respectively (7.89% and 7.75% in the non-SP population). In the multivariate analysis, the presence of sensitive skin (OR=1.44, [1.08 ; 1.93], $p= 0.0135$), scalp burning (OR=2.24, [1.43 ; 3.52], $p= 0.0005$), and scalp pain (OR=3.8, [2.42 ; 5.97], $p < 0.0001$) were found to be significantly associated with a high prevalence of SP.



3 Discussion

Scalp pruritus (SP) is a common but often underestimated condition. The results show some interesting similarities and differences between these two groups. The prevalence of SP in AW was 41.92%, slightly lower than the 49.25% observed in women from the rest of the world ($p < 0.001$). This difference may reflect cultural or environmental differences, such as hair care habits, climatic variations or symptom perception and reporting. The average age of women with SP was similar in both groups (around 35 years), suggesting that this factor does not influence prevalence differently between regions. A key factor identified in this study is the role of sensitive skin. More than half of the AW surveyed reported having sensitive skin, and this characteristic was significantly associated with an increased prevalence of SP (OR=1.44, $p=0.0135$). Although this trend is present in the RoW, it appears to be particularly relevant to AW, highlighting the importance of appropriate management for this population. Another point of note is hormonal factors. AW with SP had a higher proportion of irregular menstrual cycles. These observations highlight the potential role of hormonal fluctuations in the development of SP, paving the way for future research into the interactions between the endocrine system and scalp health.

Scalp pruritus [SP] is likely to be underestimated and has not been thoroughly assessed in large international cohorts. Our study aimed to address this research gap and focuses on American women [AW] compared to the Rest of the World [RoW]

We surveyed a representative sample (constructed according to the quota method) of 20,000 women aged 18 to 55 in 20 different countries

A total of 1,200 AW were interviewed (18,801 in the RoW). The prevalence of SP was 41.92% for AW vs 49.25% for RoW-women ($p < 0.001$). The prevalence of scalp pain [SPn] or burning sensations [BS] associated with SP was less frequent in the AW-group (35.7% & 31.6%, respectively) compared to the RoW (48.4% & 46.2%; $p < 0.0001$). In the AW with SP were more likely to have IP (43.94% vs 34.29%). One in two respondents (53.48%) indicated that they had sensitive skin [SS], with one in three (33.14%) of those No-SP also reporting this. The risk of depression was 53% versus 46% ($p < 0.0001$). The prevalence of scalp burning and pain was 31.61% and 35.79%, respectively (7.89% and 7.75% in the non-SP)

In the multivariate analysis, the presence of sensitive skin [SS] (OR=1.44- $p=0.0135$), SB (OR=2.24- $p= 0.0005$), and SPn (OR=3.8- $p < 0.0001$) were found to be significantly associated with a high prevalence of SP.

The presence of SS, SB and SPn strongly associated with SP in AW, so it may be beneficial to examine their links in order to develop strategies to prevent and treat it.

The Essentials