

# PSORIASIS AND ALTERATIONS IN QUALITY OF LIFE AT WORK : A STUDY CROSS-REFERENCING REAL-WORLD DATA FROM TWO SOURCES - MEDICAL CONSULTATIONS AND SOCIAL NETWORKS

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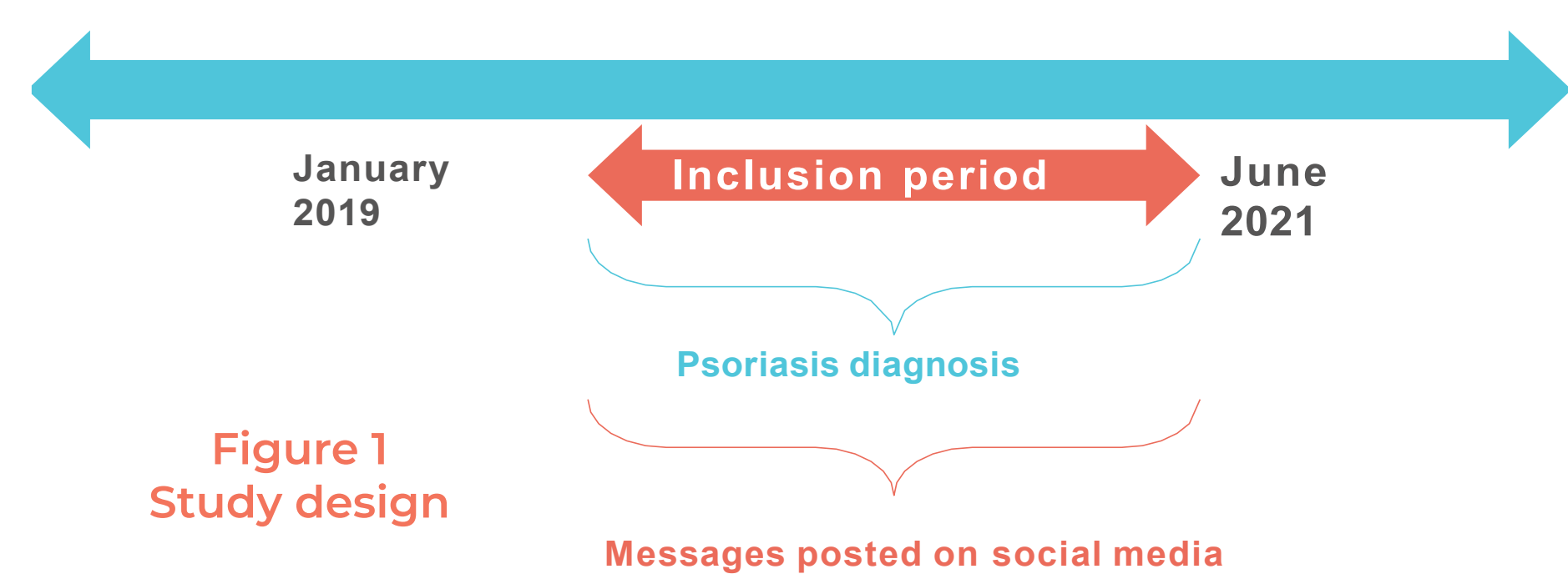
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# INTRODUCTION

Psoriasis is a chronic inflammatory skin disease that affects 2.5 million people in France [1]. Although the literature shows increasingly clear links between psoriasis and psychological disorders [3], the consequences of these comorbidities on patients' daily lives have been difficult to analyze extensively since this usually entails recruiting patients to answer a structured questionnaire [2,3]. This study therefore aimed to conduct a large-scale review of how psoriasis affects patients' quality of life at work by cross-referencing real-world data from two sources, including from social media.

## METHOD

We extracted a cohort of 52,482 patients from THIN®, an ambulatory, medicalized, real-world and GDPR-compliant database in France, that comprises health insurance claims data. We selected all the patients diagnosed with psoriasis (ICD-10 code: L40\*) between January 2019 and June 2021. We also built a control cohort matched by age, gender, and region, for a comparative study.



We used Brandwatch®, the GDPR-compliant, social media analytics tool, to collect messages about psoriasis posted on accessible French social media in the period January 2019 to June 2021. We used an automated language processing algorithm to select messages about real-life medical experiences described by patients and their families, and compiled a corpus of 2,383 messages by 2,036 internet users for our analysis.

## RESULTS

## EVEN THOUGH DIFFERENCES BETWEEN POPULATIONS, BOTH DATABASES ARE COMPARABLE

## Use of antidepressants and anxiolytics



Antidepressants and anxiolytics are among the top 10 medical treatments we detected in both data sources. This corroborates the conclusions of previous studies highlighting the link between

psoriasis and psychological disorders psoriasis and psychological disorders [3].

### Comparison of psoriasis flare-ups by frequency

**Figure 2** shows the most common flare-up locations, when they are mentioned (27.7%; 21%), and as listed in **table 1**.

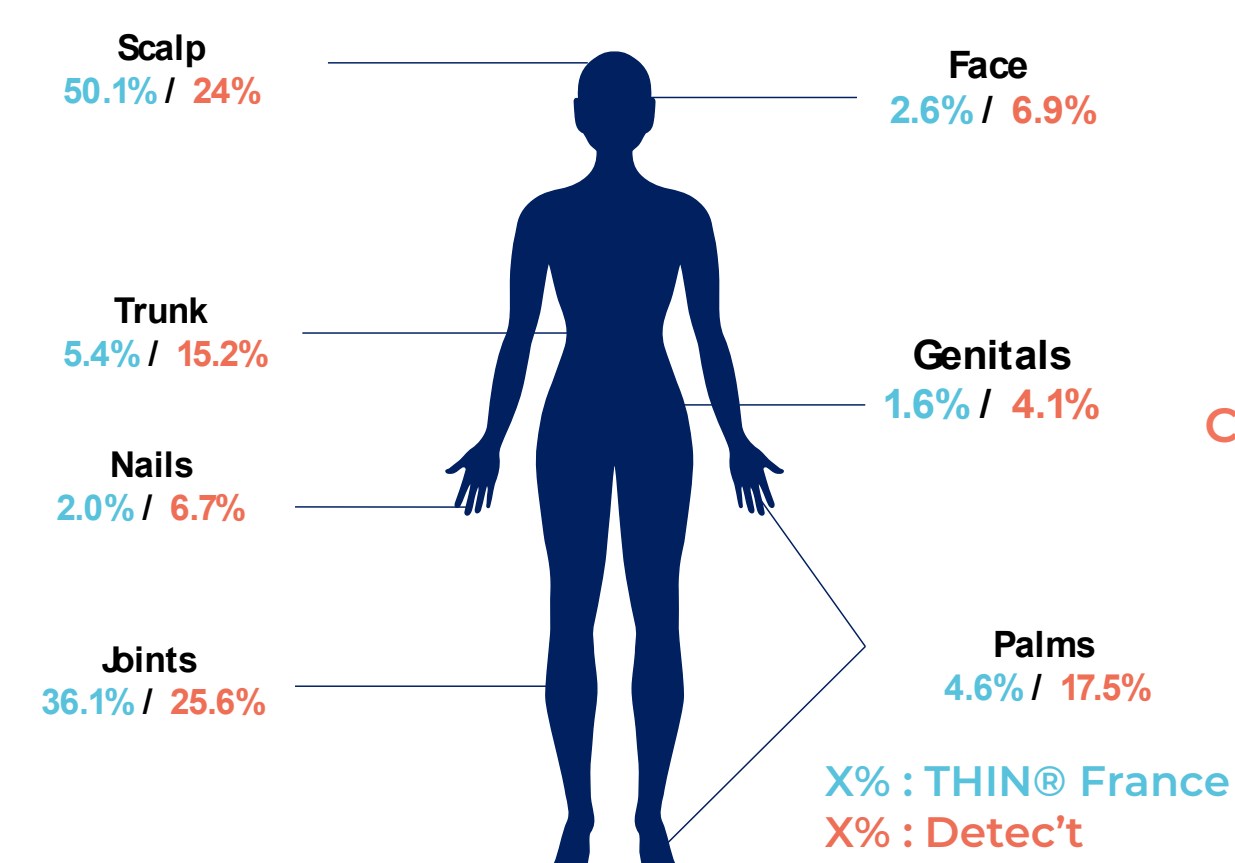


Figure 2  
Comparison of psoriasis  
flare-up locations

The psoriasis locations mentioned in both data sources are broadly consistent.

THIN® FR	Detect®
1. Scalp	1. Joints
2. Joints	2. Scalp
3. Trunk	3. Palms and soles
4. Palms and soles	4. Trunk
5. Face	5. Face
6. Nails	6. Nails
7. Genitals	7. Genitals

**Table 1**  
**Ranking of the most common psoriasis locations**

## ANALYSIS OF SICK LEAVE (THIN®) AND SOCIAL MEDIA POSTS (KAP CODE) HIGHLIGHTS THAT PSORIASIS DOES AFFECT BOTH MENTAL HEALTH AND WORK LIFE

We compared the medical data (THIN®) of the psoriasis patient and control cohorts and found that patients suffering from psoriasis are more likely to take sick leave for mental health reasons (ICD-10 codes F30-F39 and F40-F48). The difference is particularly striking for mood disorders (F30-F39), with an odds ratio of 1.43. What is more, we observed that the study cohort's average sick leave was longer than the control cohort's, at 17.6 days compared with 14.9 days (**figure 3**).

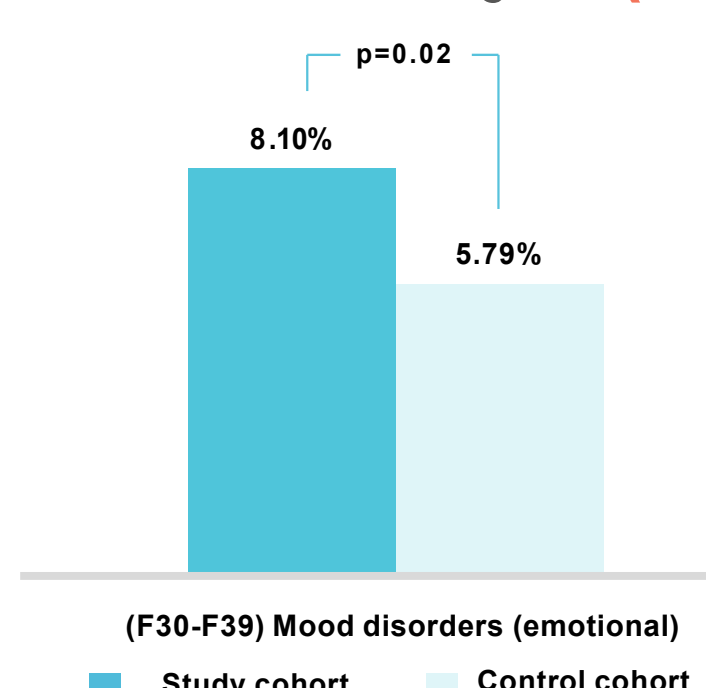


Figure 3  
Psoriasis related disorders

On social media, over 25% of psoriasis patients describe the disease as a burden or hindrance in the workplace (figure 4). They notably talk about the vicious cycle of job- and disease-related stress, which causes psoriasis flare-ups and exacerbates symptoms.

Reasons for taking sick leave	Study cohort	Control cohort
COVID-19	8%	6.7%
Depression	5.7%	4.6%
Asthenia	5.3%	5.5%
Anxiety	4.6%	4.3%
Job-related stress	2.4%	2.1%

**Table 2**  
Main reasons for taking sick leave in the study and control cohorts

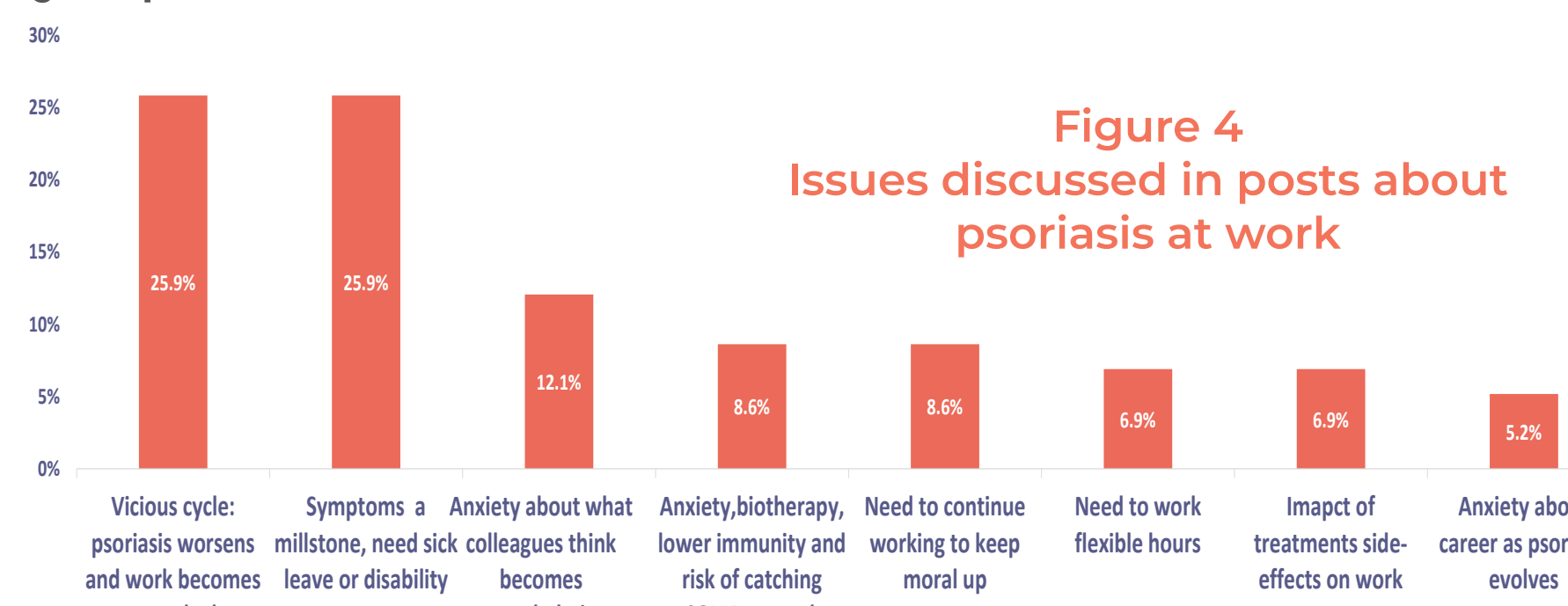


Figure 4  
Issues discussed in posts about  
psoriasis at work

Over half the internet users who posted messages about having to take sick leave, say they have psoriatic arthritis and complain about the discomfort and pain they experience.

**Figure 5** shows a word cloud of the 194 most frequently used medical terms detected in social media posts, as well as the diagnoses associated with sick leave. The more frequently words occur, the bigger and bolder they appear. The color code indicates the data source (blue: THIN FR, red: Kap Code social media).

Reference to “pain” or “pains” is particularly prevalent on social media. Reference to mental suffering and the workplace are also highlighted by the key words “work”, “anxiety” and “malaise” in purple, which indicates that they are used in both databases. While the reasons for taking sick leave underscore the prevalence of psychological and mental health disorders («depression“ and «burn-out“ in blue), combining these data with patient posts gives a better assessment of their true feelings («help me”, “shame”, “freaking out”, “fear” in red).



Figure 5  
Reasons for taking sick leave (Source: THIN\*) associated to qualitative  
messages (Source: Kap Code)

## CONCLUSION

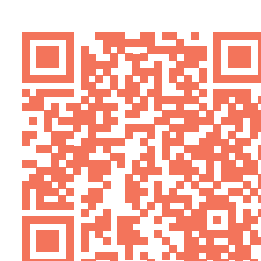
By combining two sources of real-world data—structured quantitative data from the THIN® database and unstructured qualitative data from social media—this study offers new insights into the nature of what psoriasis patients suffer. They describe being depressed and in pains, particularly in the workplace

This study's main limitations are: (i) social media posts only concern a small share of the psoriasis patient population (in this study, women account for 70% of the sample and the average age is 32.9) and are slightly skewed; (ii) the study period largely coincided with the Covid-19 pandemic, which prompted a sharp and widespread deterioration in mental health[4].

Consequently, future work will focus on analyzing a longer period and examining the temporal relationship between psychological disorders and psoriatic flare-ups. In addition to its findings, this study illustrates the value for decision-makers in the health space of cross-referencing two sources of real-world data—structured and unstructured—to give a more nuanced understanding of patients' lived reality.

## REFERENCES

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[2] Francesca Sampogna, Francesco Sera, Damiano Abeni. Measures of Clinical Severity, Quality of Life, and Psychological Distress in Patients with Psoriasis: A Cluster Analysis, *Journal of Investigative Dermatology*. <https://doi.org/10.1046/j.0022-202X.2003.09101.x>.  
[3] Raishan S. Bakar, Sharifah Z.S. Jaapar, Afiq F. Azmi, Yeoh C. Aun, Depression and anxiety among patients with psoriasis: A correlation with quality of life and associated factors, *Journal of Taibah University Medical Sciences*, Volume 16, Issue 4, 2021. <https://doi.org/10.1016/j.jtumed.2021.02.008>.  
[4] Results of the CoviPrev study : A survey of changing behaviors and mental health during the Covid-19 pandemic in France.



SCAN THE QR CODE TO ACCESS THE DIGITAL VERSION OF THE POSTER

