Introduction

Psoriasis is a chronic immune-mediated inflammatory skin condition that has a significant negative impact on the physical, emotional, and psychosocial well-being of those affected.

Psoriasis symptom severity can be assessed through a variety of measures, including the Psoriasis Area and Severity Index (PASI) score. The PASI is widely used in clinical trials and accepted by agencies and other decision makers.

Psoriasis severity and productivity are closely linked, however, the relationship between disease severity and productivity is not well understood.

At the time of this study, no published studies had been conducted to examine specifically the potential association between PASI score and productivity.

A cross-sectional patient survey and retrospective chart review was conducted to determine if patients with moderate to severe psoriasis experience a negative impact on productivity.

Methods

A cross-sectional patient survey and retrospective chart review was conducted at eight Canadian dermatology clinics.

Participants

• Adults with a physician-confirmed diagnosis of psoriasis, not in a clinical trial, and working for pay outside the home or not working for pay outside the home due to psoriasis, were recruited for the study.

• Participant recruitment was stratified according to PASI score, with a target of 40 participants per category:
  - Mild: PASI≤5
  - Moderate: 5<PASI≤10
  - Moderate/severe: 10<PASI≤20
  - Severe: PASI>20

Data Collection

• Participants completed a survey which included:
  - Demographic and clinical questions, including self-reported control of psoriasis.
  - Dermatology Life Quality Index (DLQI); 4
  - Hospital Anxiety and Depression Scale (HADS); 5
  - Work time missed due to psoriasis (absenteeism);
  - Impact of psoriasis on leisure time and the ability to perform other activities (activity impairment).

• Medical chart data from eligible participants were extracted to collect clinical measures, including the Psoriasis Area and Severity Index (PASI) score.

• The PASI was calculated as follows:
  - PASI score = (Area × Severity)
  - Severity is calculated as follows:
    - 100% = Moderate
    - 75% = Severe
    - 50% = Moderate/Severe
    - 25% = Light

Data Analysis

• Differences from the WPAI were summarized according to the scoring algorithm provided by the developers. 6

• The impact of psoriasis on productivity was quantified by estimating the mean (standard deviation): SD and median (interquartile range: IQR): Work time missed due to psoriasis (absenteeism); Percent of work time while working due to psoriasis (presenteeism); Percent overall work impairment (absenteeism plus presenteeism); and, Impact of psoriasis on leisure time and the ability to perform other activities (activity impairment).

• Estimates were stratified according to PASI category.

• Beta regression modelling estimated the impact of severity on impairment.

• Exploratory variables included: age, psoriasis duration, manual work activity (employed full time, employed part time, unemployed, full time unemployed/homemaker) current PASI score, age, weight, patient-reported control of psoriasis (controlled, uncontrolled, undecided), anxiety, depression and treatment type.

• Out of these exploratory variables, the final model included PASI score, control of psoriasis, anxiety and depression due to their significance in univariate beta regression models (β2.5 significance required), whereas treatment type was included in the final model based on clinical considerations.

• The recruitment of severe patients proved difficult; only 21 out of 40 targets were recruited in the PASI category > 20; therefore, this study was not powered to detect differences in work and activity impairment in severe and moderate/severe disease.

• No patients had moderate to severe psoriasis and were included in the final model.

Conclusion

• The data from this patient survey and retrospective chart review provide real-world evidence characterizing the impact of psoriasis and disease severity on productivity among affected Canadians.

• This study demonstrated a negative association between psoriasis severity and work productivity and daily activities.

• The impact of psoriasis on work absenteeism was minimal whereas increased overall work impairment and activity impairment were observed to be significantly associated with increased overall work impairment and activity impairment between patients with severe disease (predefined PASI category) and those with mild to moderate/severe disease.

• Two sites noted that more severe patients were often in encoded clinical trials, thus not eligible for this study. Additionally, many of the patients with severe disease were from one study site; therefore, these results may not be generalizable to all severe patients.

References


