



QUALITY OF LIFE, QUALITY OF CARE, AND PATIENT SAFETY

POSITIVE SENTIMENT FOR BIOLOGIC THERAPIES AMONG PSORIASIS PATIENTS ON SOCIAL MEDIA

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Introduction: Psoriasis is a chronic inflammatory disease affecting the skin and joints. Though no cure exists, there are multiple biologic agents that can significantly impact patients' quality of life. Many patients rely on social media to gather insight into the efficacy of medications, share personal experiences, and commiserate/network with other psoriasis patients. Using social media analysis, we can better understand patient experiences with these therapeutics and facilitate the delivery of population-based care.

Objective: To identify trends in patients' perspective of psoriasis treatments on social media between 2008-2018.

Materials and Methods: Approximately 4.8 million posts containing the word "psoriasis" were searched. Of those, posts created by patients from 2008-2018 were compiled using Crimson Hexagon. Sentiment analysis was performed on the posts using machine learning algorithms and EmoLex, a dictionary for emotion and sentiment classification.

Results: From 2008-2018, expressions of joy increased 6% while expressions of disgust decreased 6%, with fear also decreasing. This change in expression began in the latter half of 2009 and has been stable since 2013 through 2018. There were multiple new biologic therapeutics that became available during this time, which may have contributed to this increase in expression of positive feelings. Ustekinumab was approved in 2009 for psoriasis and increased clearing potential to well above 70%, the mean reduction of Psoriasis Area and Severity Index (PASI) for anti-TNFs at the time. Other promising therapeutics included secukinumab and ixekizumab, achieving PASI-75 in 82% and 90% of the patients, respectively, as well as certolizumab, achieving PASI-90 in 60% of patients.





Conclusion: Social media post analysis is an efficient way of identifying patients' concerns regarding medications. Learning the efficacy of treatment from the patients' perspective can help guide physicians and pharmaceutical companies to provide patient-centered care and drive population-based care, thereby increasing evidence-based recommendations and lowering the cost of care.

