

Longitudinal Psychological Impact of Psoriasis: A Comparative Study Between Adults and Children in Canada and the United States

Authors : Jenny Carpenter, Josh Chan, Persephone MacKinlay, Madeline Chiang, Devlyn Sun, Hiba Syed, Jana Lau, Mariam Arshad, Joy Xu

Abstract : Introduction: Psoriasis is a chronic inflammatory skin condition that affects 1 million Canadians and over 8 million Americans. It is associated with psychosocial challenges exacerbated by the presence of visible lesions, which can lead to feelings of embarrassment and social discomfort. Children often experience bullying and lower self-esteem, while adults face workplace discrimination, impaired productivity, and higher rates of comorbid mental health conditions. Understanding these impacts across age groups is vital for tailored interventions. Objective: The main objective is to compare the longitudinal psychological impact of psoriasis between adults and children in Canada and the United States. Methods: This systematic review was conducted following PRISMA guidelines and a PROSPERO-registered protocol. Studies were identified from PubMed, Scopus, ProQuest, PsycINFO, Dermatology Online Journal, JMIR Dermatology, and Embase. The included studies were published between 2014 and 2024, measured standardized psychological outcomes, and had a longitudinal design with at least a one-year follow-up period. Methodological quality was assessed using the GRADE tool. Results: Fifteen studies encompassing 67,964 participants (mean age 49.1 years, 53.3% female) were included. Adults with moderate-to-severe psoriasis demonstrated significant impairments in Dermatology Life Quality Index (DLQI) scores, with a mean baseline score of 9.0 to 10.2 for severe cases, reflecting moderate-to-severe quality of life (QoL) impairments. Treatment with biologic therapies significantly improved outcomes, with DLQI scores decreasing by an average of 7 points (from 9.6 to 2.6; $p < 0.001$). Key areas of improvement included social functioning, reduced physical symptoms, and increased work productivity. In severe cases, DLQI scores were 7.95 points higher compared to mild cases ($p < 0.05$), indicating a disproportionate burden of disease severity. Anxiety and depression were common in adults, affecting 16-23% and 18-22%, respectively. These conditions were linked to visible lesions, social stigma, and comorbidities such as hypertension and metabolic syndrome. Children with psoriasis also exhibited similar impairments in QoL, as assessed by the Children's Life Quality Index (CLDQI). Visible lesions negatively affected school participation and peer interactions, with bullying and stigma consistently reported as major contributors to social isolation and emotional distress. Although biological therapies improved CDLQI scores, children faced persistent challenges in psychological well-being, including lower self-esteem and stigma, which often persisted in adolescence. Disease severity was quantified using the Psoriasis Area and Severity Index (PASI). Among adults, severe cases had a mean baseline PASI score of 13.9, improving by 87.1% (to 1.8, $p < 0.0001$) following biologic therapy. Canadian cohorts showed greater PASI improvements, with biologic-naive adults achieving a 95.1% reduction (from 16.3 to 0.7, $p < 0.0001$). Canadian patients also had higher biologic continuation rates (89.9%). Conclusion: Psoriasis significantly impacts quality of life and psychological well-being across age groups, with notable differences in outcomes between adults and children. Regional differences further highlighted greater work-related impairments in U.S. adults and more pronounced psychological challenges in Canadian children, where bullying and stigma delayed recovery. These findings emphasize the need for age- and region-specific strategies to address both the physical and psychosocial dimensions of psoriasis and support long-term well-being.

Keywords : psoriasis, psychological impact, mental health, quality of life, self-esteem, autoimmune, chronic skin condition

Conference Title : ICDDs 2025 : International Conference on Dermatology and Dermatologic Surgery

Conference Location : Toronto, Canada

Conference Dates : February 10-11, 2025