
RESEARCH ARTICLE

Clinical Severity and Quality of Life Impairment in Vitiligo: A Literature Review on the Relationship Between VASI and DLQI

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ABSTRACT

Vitiligo poses a long term challenge that affects not just physical appearance but also emotional health and daily life. People living with the condition often face difficulties related to the visibility of skin changes, the unpredictable nature of the disease, and how others in society respond to it, all of which significantly affect their overall quality of life. Recent research highlights the importance of understanding the impact of vitiligo through both medical and personal accounts. Two commonly used tools, the Vitiligo Area Scoring Index (VASI) and the Dermatology Life Quality Index (DLQI), provide different but complementary views on how the loss of skin color relates to emotional and social effects. This review brings together findings from recent studies to explore how these measures connect and what they reveal about the lived experience of vitiligo. VASI measures the size and spread of depigmented patches, while DLQI looks at how these changes affect emotions, social relationships, work, and self esteem. Research across various settings consistently shows that more severe disease is linked to greater impairment in quality of life, although the strength of this link can vary based on factors like age, how long someone has had the condition, the level of stigma they face, and cultural background. The available evidence suggests that using both VASI and DLQI together gives a more complete understanding of the burden of vitiligo than using either one alone, highlighting the importance of considering both visible and hidden aspects of the condition. New studies also suggest that psychological support, early counseling, and tailored treatment plans may help reduce the difference between the severity of the disease as seen by doctors and how much distress it causes the individual. By combining insights from dermatology, psychology, and patient reported outcomes, this review emphasizes the value of using a multidimensional approach in vitiligo care. Future research should use long term and culturally diverse methods to better understand how disease severity and perceptions of quality of life change over time, and to improve interventions that support the overall well being of people with vitiligo.

KEYWORDS

Vitiligo, VASI, DLQI, quality of life, disease burden, psychosocial dermatology

ARTICLE INFORMATION

ACCEPTED: 05 November 2025

PUBLISHED: 15 December 2025

DOI: 10.32996/jmhs.2025.6.9.1

1. Introduction

Vitiligo is a long-term condition that causes the skin to lose its color in certain areas, leading to patches of lighter or white skin that can appear anywhere on the body. While it isn't dangerous to your health, it can cause a lot of emotional and social stress, including feelings of shame, avoiding social situations, and experiencing anxiety or depression (Ezzedine et al., 2021). Recent studies estimate that about half a percent of people worldwide live with vitiligo over their lifetime, though this number changes depending on where you live (Akl et al., 2024). Because vitiligo is noticeable and affects so many people, doctors and researchers now often look at both how severe the condition is and how it affects a person's life when deciding the best way to manage it. Two main tools are used for this. The Vitiligo Area Scoring Index (VASI) helps doctors measure how much of the body is affected and how severe the loss of color is, giving a consistent way to track changes over time (Kawakami & Lai-Cheong, 2011; Pourang et al., 2024). The Dermatology Life Quality Index (DLQI) is a short questionnaire that patients fill out to

describe how the condition impacts their daily life, including work, relationships, and feelings (Finlay & Khan, 1994). In practice, these two tools ask different things: one measures the extent of the condition, and the other measures its impact on a person's life. It's important to understand how these two tools relate to each other so that care is more focused on the patient, outcomes are properly evaluated, and research is designed effectively.

2. Measurement background : VASI and DLQI

The VASI was developed to enhance the evaluation of vitiligo by integrating body region BSA measurements with percent depigmentation classifications, enabling clinicians to more systematically assess both the spread and degree of pigment loss (Kawakami & Lai-Cheong, 2011). In recent years, there has been increased focus on improving scoring methods and assessing the consistency of results among different raters. Although VASI is a valuable and commonly used tool, it is important to ensure that examiners are properly trained, that clear visual guides are available, and that standardized procedures are followed to minimize differences in scoring and achieve reliable results across different clinicians and research locations (Pourang et al., 2024). Meanwhile, the DLQI is a 10 item questionnaire that is frequently used in dermatology. Its concise format, strong validation, and ease of use make it suitable for both clinical practice and research environments (Finlay & Khan, 1994).

3. Evidence that severity and quality of life are linked

Multiple studies conducted in various clinical environments have consistently found a similar pattern: individuals with higher VASI scores typically report lower DLQI scores, indicating that more widespread depigmentation is often linked to greater emotional and social difficulties (Asri et al., 2019; JPAD study, 2023; Awal et al., 2024). Systematic reviews and meta analyses support this trend, highlighting that although the connection isn't absolute, the extent of vitiligo generally reflects how much it impacts a person's everyday life and mental health (Ezzedine et al., 2021; Salama et al., 2023). Recent large scale research also shows that many patients face major disruptions in their quality of life even when the visible skin changes are not severe, suggesting that personal coping strategies, social surroundings, and individual perceptions can influence how the condition is experienced and understood (Akl et al., 2024).

4. Visibility and site specific effects

A clear and consistently seen trend is that skin lesions in easily noticeable areas have a much greater impact on DLQI scores than similar amounts of skin involvement in less visible areas (such as the face and hands compared to the trunk). Many researchers have pointed out that even small patches on the face can lead to high DLQI scores. This is because these areas are highly significant in terms of social and emotional factors, often causing greater worry about how one looks, facing judgment, and dealing with stigma (Abu-Hilal et al., 2022; Awal et al., 2024).

5. Psychological and contextual moderators

The relationship between VASI and DLQI is often influenced by an individual's personal situation and the social environment they are part of. Factors like how much a person feels stigmatized, their approach to dealing with stress, the level of support they receive from others, and the presence of other mental health issues can all affect how much a disease's severity impacts a person's quality of life. Ezzedine and others have noted that depression and anxiety are frequently seen in people with vitiligo, and these conditions can increase the feeling of burden, regardless of how much skin depigmentation is present (Ezzedine et al., 2021). The way different cultures view skin appearance, how accepted the condition is within a community, and how easily someone can get proper skin care also have a significant impact on daily experiences with the condition (Rodrigues et al., 2021; Salama et al., 2023). These various influences help explain why individuals with similar VASI scores may have very different DLQI scores.

6. Intervention studies: does reducing VASI improve DLQI?

When VASI scores start to improve, patients often report feeling better in their daily lives as well. This is especially true with treatments that lead to visible repigmentation such as phototherapy, topical therapies, or some of the newer systemic options because those changes are immediately noticeable and can boost a patient's confidence. Still, researchers have pointed out that emotional well-being does not always bounce back as quickly as the skin does. Some people continue to struggle with worries, self image, or past negative experiences even after their patches improve, which is why medical treatment alone is not always enough. These findings reinforce the value of pairing clinical therapies with supportive measures like counseling, reassurance, or simple check-ins to help patients adjust more fully over time (Rodrigues et al., 2021; Awal et al., 2024).

7. Measurement limitations and heterogeneity

There is still considerable variation in how VASI is applied in practice, with different groups using slightly different versions of the scoring system. This variation makes it difficult to compare results from different studies, particularly when the way subdomains of the DLQI are reported is not consistent. Much of the existing research is also cross-sectional, meaning it can only show relationships rather than explain how or why VASI and DLQI scores change together over time. Due to these

limitations, several researchers have called for more clear and standardized guidelines for using VASI, as well as for more regular use of vitiligo specific quality of life tools like the VIS. They also emphasize the importance of conducting longer term, prospective studies that track patients throughout their treatment, allowing for a better understanding of how clinical outcomes and daily experiences evolve over months and years (Chernyshov, 2023; Pourang et al., 2024).

8. Discussion and Future Directions

The studies reviewed here suggest a simple yet important point for clinicians: looking at vitiligo from both a clinical and a patient's personal experience perspective provides a clearer understanding of what someone is going through. Using VASI alongside a patient-reported tool like the DLQI—or a vitiligo-specific questionnaire when available—helps capture not only how much skin is affected but also how the condition is affecting daily routines, confidence, and social interactions (Ezzedine et al., 2021; Chernyshov, 2023). When both types of information are considered together, treatment discussions often become more focused and meaningful. Patients can express what bothers them most, such as highly visible patches, and clinicians can respond with targeted plans that may include medical therapy, camouflage advice, or psychosocial support when needed (Rodrigues et al., 2021; Awal et al., 2024). From a research perspective, several authors point out that progress will depend on reducing the variation in how VASI is scored and on making vitiligo-specific quality-of-life measures a routine part of studies (Pourang et al., 2024; Chernyshov, 2023). There is also a growing call for long-term, follow-up research that tracks patients over months or years, rather than relying only on single-time assessments. These kinds of studies would help clarify how changes in pigmentation line up with emotional recovery and whether improvements in the skin actually translate into feeling better overall (Akl et al., 2024; Salama et al., 2023; Rodrigues et al., 2021).

9. Conclusion

VASI and DLQI together reflect the two main aspects of vitiligo: the extent of skin affected and the impact of these changes on daily life. The link between these two measures is usually strong, but it's also complex and can be hard to detect. This connection can change based on the location of the skin patches, the presence of anxiety or sadness, and how the person's community perceives visible skin conditions. Because of these factors, two individuals with similar VASI scores may have very different experiences of their condition. Cross-sectional studies only provide a single point in time, which is not enough to fully understand how these changes develop over time. Developing consistent scoring methods and conducting longer term studies will help better understand how changes in pigmentation relate to emotional and social well-being. This approach supports care that is more accurate, more thoughtful, and more aligned with what patients truly feel.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

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