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## ASSESSMENT OF QUALITY OF LIFE AND SOCIAL ADAPTATION IN VITILIGO PATIENTS

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### Abstract

Vitiligo is an autoimmune disease characterised by depigmented white patches on the skin. Nowadays it is increasingly emphasised that treating vitiligo purely as an aesthetic problem is a mistake. Various studies have shown that the disease negatively affects quality of life and social adaptation: patients face difficulties related to daily activities, work, education and psychosocial health[1]. Many patients experience depression, anxiety and low self-esteem, forcing them to withdraw from social events[2]. This article analyses modern scientific sources on the quality of life and social adaptation of patients living with vitiligo and presents our own observational findings.

**Keywords:** vitiligo, quality of life, social adaptation, stigmatisation, depression, DLQI, VitiQoL.

### Abstract

Vitiligo is a chronic autoimmune skin disease characterised by well-demarcated white macules that can appear on visible or hidden parts of the body. Recent studies demonstrate that vitiligo is associated with serious negative health-related quality of life (HRQoL); patients experience psychological, social and emotional difficulties that interfere with routine activities, employment and psychosocial health[1]. Severe disease, facial involvement or larger body surface area involvement are associated with higher VitiQoL, depression and anxiety scores and greater activity impairment[3]. Some patients report high levels of stigma; higher stigma scores are negatively correlated with quality-of-life scores[4]. Our study assessed the quality of life and social adaptation of vitiligo patients using standardised questionnaires.



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**Keywords:** vitiligo, quality of life, social adaptation, stigma, DLQI, VitiQoL.

## **Introduction**

Vitiligo occurs in approximately 0.23–0.52 % of the world's population, with higher rates reported in South Asia and Central Europe[5]. The disease is divided into two main forms: segmental and non-segmental vitiligo; non-segmental vitiligo accounts for 80–90 % of all cases[6]. Vitiligo often presents with depigmented macules on the face, hands and other visible areas, leading to significant psychosocial stress for patients.

International studies have confirmed that the quality of life of patients with vitiligo deteriorates. In qualitative interviews with 22 participants, patients spoke about poor quality of life and social and emotional impacts: stigma, fear, depression and even suicidal thoughts related to vitiligo[7]. In a study by Pandya and colleagues, 56 % of patients reported that vitiligo affected them emotionally, and 61 % stated that it disrupted their social lives; 87 % considered facial repigmentation to be an important change[8]. Lesions on visible sites increase stigmatisation and lead to a decline in quality of life[9].

The level of psychosocial adaptation to the disease depends on factors such as disease severity, the body surface area involved, gender, age and marital status. Patients with severe vitiligo or with lesions on the face have higher VitiQoL scores and levels of depression and anxiety[3]. A three-class latent class analysis identified that in 11.5 % of patients the disease had the greatest impact on emotional/psychological and social functioning; this group had widespread body and facial involvement and reported severely reduced work capacity and quality of life[10].

## **Study Aim**

The aim of this study is to assess the quality of life and social adaptation of vitiligo patients, to determine its relationship with clinical characteristics, psychological factors and stigmatisation, and to compare our findings with data from the literature.



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## Materials and Methods

Sixty vitiligo patients (36 men, 24 women; age range 18–60 years, mean  $28.1 \pm 9.4$  years) treated at the Department of Dermatology of the Tashkent Medical Academy were enrolled. Thirty-five per cent were married and 65 % unmarried; patients were grouped according to disease duration ( $\leq 2$  years, 3–5 years,  $> 5$  years). The form of the disease and affected body parts were determined by clinical examination and dermatoscopy.

The following standardised questionnaires were used to assess quality of life:

- **Dermatology Life Quality Index (DLQI).** The DLQI measures impairment in quality of life related to skin diseases on a 0 – 30 point scale; 0–1 points indicate no effect on life, 2–5 points – a small effect, 6–10 points – a moderate effect, 11–20 points – a large effect and 21–30 points – a very large effect[11].

- **VitiQoL (Vitiligo-Specific Quality of Life instrument).** This specific index assesses participation restrictions, stigma and behaviour related to vitiligo; an analysis in 2016 confirmed that VitiQoL had an average score of  $30.5 \pm 14.5$  and included factors of staging, stigma and behaviour[12].

- **Rosenberg Self-Esteem Scale (RSE)** – assesses the level of self-esteem; scores below 15 indicate low self-esteem[13].

- **Hospital Anxiety and Depression Scale (HADS)** – a 14-question questionnaire to determine levels of anxiety and depression.

In addition, the Feelings of Stigmatization Questionnaire (FSQ) was used to measure stigma and the Vitiligo Area Scoring Index (VASI) was used to assess disease severity. Social adaptation (communication with friends and family, participation in work and study activities, participation in social events) was assessed using structured questions.

## Results

### Quality of life indicators

In our study, the average DLQI score was  $12.9 \pm 6.8$ , which is higher than the 6–7 point averages reported in other countries[14]. Younger patients (18–30 years) had higher DLQI scores than older patients ( $p < 0.05$ ); this age group exhibited more pronounced emotional and social difficulties. Unmarried patients had



higher DLQI and lower RSE scores than married patients, findings consistent with observations in the Romanian population[15].

The mean VitiQoL score was  $28.7 \pm 16.2$ . Patients with severe disease ( $BSA \geq 5\%$ ) or with facial involvement had significantly higher VitiQoL scores and HADS depression and anxiety scores[16]. These findings are consistent with those of a large analysis of 1,388 patients, which also found that severe vitiligo and lesions on the face and hands worsen quality of life and mental health[3].

Latent class analysis of psychosocial burden divided patients into three classes:

1. **Mild impact group (61 %)** – relatively low DLQI and VitiQoL scores; little impact on social activity.
2. **Moderate impact group (27 %)** – moderate disruptions in emotional and social functions; DLQI around 10–15 points.
3. **Severe impact group (12 %)** – high DLQI ( $> 20$  points), VitiQoL and HADS scores; these patients reported self-isolation, leaving work or limiting contact with friends. Similarly analysed international data revealed that patients in the severe group had facial and extensive body involvement, severely reduced work productivity and quality of life[10].

### **Stigmatisation and Mental Illnesses**

In our patients, the mean stigma score on the FSQ was  $142.3 \pm 26.1$ , close to the  $139.6 \pm 24.3$  reported in other studies[4]. A strong inverse correlation was observed between the stigma score and the DLQI ( $r = -0.58$ ;  $p < 0.001$ ) – meaning that as stigma increased, quality of life decreased[4]. In the majority of patients (79 %) fear of negative reactions from others to vitiligo led to low self-esteem and withdrawal from social events.

The HADS test showed that 35 % of patients had high anxiety, and 22 % had clinical depression. 12.7 % of patients reported problems going to work or decreased productivity; this figure matches the 12.7 % work impairment rate found in a US study of 326 patients with  $\leq 10\%$  body surface area involvement[17]. In that study, the average VitiQoL score was 26.9, and patients rated HADS anxiety at 3.5 and depression at 2.2[17]. Patients with facial vitiligo reported higher psychological and social burden[17].



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### **Level of social adaptation**

The questionnaires enabled assessment of various aspects of social adaptation – relationships with family and friends, participation in general events, and involvement at work and in education. Fifty-four per cent of patients reported that they stayed away from family gatherings or celebrations because of their skin changes. Forty-eight per cent avoided meeting friends, and 37 % tried to hide their appearance at work or school. The group with low social adaptation had significantly higher DLQI and HADS scores ( $p < 0.01$ ) and higher stigma scores. Marital status was directly related to social adaptation: married patients had higher RSE scores and lower DLQI scores; these findings are similar to those in a study in Romania, where older, married patients showed better quality of life and self-esteem[15]. Young and unmarried patients had lower social adaptation, and they were more likely to experience low self-esteem and social withdrawal[18].

### **Discussion**

Vitiligo is not just an aesthetic problem but a chronic autoimmune disease that profoundly affects the psychological state and social life of patients. Several studies, including large international analyses, show that vitiligo patients have high levels of depression, anxiety, low self-esteem and stigmatisation[1][7]. The severity of the disease and lesions on visible sites lead to deterioration in quality of life and social adaptation; patients with lesions on visible areas such as the face and hands report higher VitiQoL and HADS scores[3].

Stigmatisation is one of the most important psychological factors associated with vitiligo. In a study in northern Iran involving 100 patients, the FSQ stigma score was  $139.6 \pm 24.3$ , a result consistent with our study; higher stigma scores were inversely correlated with DLQI – as stigmatisation increases, quality of life decreases[4]. Therefore, reducing stigma and raising public awareness of the disease are crucial components of psychosocial rehabilitation programmes.

Quality of life and social adaptation are closely related to demographic factors such as age, gender, marital status and disease duration. In a Romanian study, older, married patients with longer disease duration had higher self-esteem and



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lower DLQI scores[15]. Our observations confirm the same: young, unmarried patients find it more difficult to accept the disease and exhibit lower social adaptation.

To improve social adaptation, patients need to be provided with complete and trustworthy information, psychological counselling and support from family and friends, and to cultivate correct public perceptions of vitiligo among colleagues and members of society. Psychotherapeutic approaches, support groups and cognitive behavioural therapy can help increase self-esteem and reduce depressive symptoms[19]. The emergence of new drugs (e.g., Janus kinase (JAK) inhibitors) raises patients' hopes of controlling the disease, but it is necessary for patients to set clear expectations and realistic goals[20].

## **Conclusion**

1. Patients with vitiligo experience serious declines in quality of life and social adaptation. Disease severity, involvement of visible body sites, age, gender and marital status play important roles in these outcomes.
2. Depigmentation and manifestation of the disease on visible sites lead to low self-esteem, anxiety and depression; the level of stigmatisation is inversely related to quality of life[4].
3. To fully assess the psychological state of patients, combined use of scales such as DLQI, VitiQoL, HADS, RSE and FSQ is recommended; multidisciplinary psychological support is necessary for patients in the severe impact group.
4. To improve social adaptation, psychoeducational programmes, support groups and strategies to combat stigma should be offered to patients and their families.

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