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Vitiligo and The Effects on Quality of Life

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Abstract

Vitiligo is an acquired skin condition characterised by white macules that occurs as a result of skin depigmentation which has been shown to significantly impair quality of life (QoL) of patients. Some people take their white spots in their stride and even embrace them as uniquely beautiful, but studies have shown most people suffer with psychological distress, social stigmatization, and low self-esteem, thus having a negative impact on their QoL ^[1]. This review summarizes the current knowledge on vitiligo and attempts to identify the possible risk factors related to poor QoL in patients with vitiligo.

Keywords: Vitiligo, QoL, Autoimmunity, Psychological,



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Introduction

Vitiligo is an acquired chronic skin condition that affects skin pigmentation. Specifically, vitiligo causes a loss of skin pigmentation caused by the destruction of melanocytes in the skin. It is characterized by depigmented macules of different shapes on a person's body. ^[4]

Vitiligo has an estimated prevalence of 0.5-2% of the population worldwide. It can appear at any age from child to adulthood but peak incidence is reported in the second and third decade. The age of onset usually varies between the sexes. In recent years, considerable progress has been made in our understanding of the pathogenesis of vitiligo which is now clearly classified as an autoimmune disease.

Three types of Vitiligo exist, generalized, focal and segmental. Generalised Vitiligo is the most common, it takes the form of many spots and patches all over the body. These patches typically affect both sides of the body and tend to be symmetrical. Focal vitiligo is characterized by a few spots in a concentrated area. These spots can be stable for years at a time, and may not spread anywhere else. Segmental vitiligo is the least common of the three. This type of vitiligo is characterized by spots or patches that are isolated to one side of the body.

Diagnosis of vitiligo is made clinically and does not need any specific test in most cases. There is an increased rate of various autoimmune diseases in people with vitiligo, in particular thyroid diseases and alopecia areata.

^[4] For thyroid diseases and autoimmune thyroiditis, respectively, a



systematic review and a meta-analysis found mean prevalence rates of 15.1 % and 14.3 % [4].

The severity of the disease is scored by the body surface area affected. This can be using different scales, the leading one being the Affected Body Surface Area (BSA) which is based on the rule of nine. One percent corresponds approximately to the palm and volar aspect of the fingers of a patient; 0.1 % corresponds to the volar aspect of the thumb of a patient. Manifestation can be classified as severe (BSA > 30 %), moderate (BSA 10–30 %), and mild (BSA < 10 %) [4], although there is no general consensus. [15]

The course of the disease is often unpredictable and varies in response to the treatment. The treatment of vitiligo is still one of the most difficult dermatological challenges. Several treatments are available. Some can restore pigment but none can cure it or prevent its spread or recurrence. Medical treatments include topical corticosteroids and other topical treatments, such as antioxidants, tacrolimus and pimecrolimus, prostaglandin E, and vitamin D derivatives. Skin graft and surgery is rarely used. Non-medical treatments include covering up, use of Camouflage and psychological therapies. Support groups also play an important part in the management of vitiligo.



Review

QoL is a subjective measurement, however the Dermatology Life Quality Index (DLQI) is a dermatology-specific, patient-reported quality of life test which is commonly used to assess vitiligo patients' quality of life. It has ten questions that assess everyday tasks, recreation, symptoms, and emotions, as well as work and school and personal relationships. A score out of 30 is given to show how much of significance the skin condition has on the patients QoL. The higher the score is the more quality of life is impaired.

DLQI BAND (RANGE OF DLQI SCORES)	SIGNIFICANCE
0-1	No effect on patients life
2-5	Small effect on patients life
6-10	Moderate effect on patients life
11-20	Very large effect on patients life
21-30	Extremely large effect on patients life

Multiple studies using the DLQI have shown that people affected by vitiligo report symptoms of depression, anxiety and poor self-esteem. ^[14]

[4]

A meta-analysis of 29 studies of people affected by vitiligo (n=2530) found the pooled prevalence for depression and anxiety using validated questionnaires was 0.29 and 0.33, respectively, and these were the two most commonly reported psychological outcomes. ^[5]



In a majority of studies, women showed more QoL impairment than men. A study by Neena Savant et al. (2019) reported, the gender differences for depression in patients affected by vitiligo revealed a higher prevalence of 28 (63.64%) in females as compared to 24 (42.86%) in males which was statistically significant. ^[13]

Studies have shown females experienced significant social anxiety and avoidance as compared to males probably due to greater cosmetic awareness with avoidance due to feeling of looking unattractive or being stared at by others. This resulted in them avoiding meeting new people, withdrawing from family, being sexually inhibited, etc. ^[14]

Single patients were more likely to be affected mentally than older married people. ^[14] This could be due to factors such as concern about future prospects in finding a life partner, apprehension about intimacy and having to expose skin. Multiple studies have shown people often report an embarrassment when showing their skin and low self-esteem.

Studies have shown people with vitiligo on exposed areas such as the face or hands struggle with anxiety more than those with vitiligo that can be covered up. In a study by Ongenae et al. (2005) Vitiligo moderately affecting head, face or neck areas, trunk and feet localizations were found to correlate significantly with the overall DLQI score ^[11] People with Vitiligo in the covered areas were less concerned about social interaction and functioning, but were in contrast, quite worried about the social consequences of vitiligo spreading to the exposed areas. ^[12] ^[11]



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Hedayat et al. (2016) reported, many people try to hide their lesions by wearing full clothes. Those with darker complexions have also been shown to struggle more with their vitiligo, as depigmentation is more visible on darker skin. ^[12]

Certain cultural taboos and stigmas relating to vitiligo may cause embarrassment, social anxiety and depression. A study done by Felipie Cupertino et al. (2017) highlighted misconceptions and negative attitudes about vitiligo among the general public are prevalent. Thirty-three percent of individuals who answered a questionnaire believed that vitiligo is contagious or did not know that it is not. ^[3]

The cause of vitiligo was thought to be infectious by 20.4%, inherited by 40.5%, autoimmune by 41.2%, and due to a lack of hygiene by 22.5%. ^[3]

Historical accounts showed Vitiligo and other skin-lightening diseases, and the stigma from these lesions, were seen as a punishment by God for sins, or at least, moral and spiritual impurity (Kopera, 1997). People were stigmatised and treated as outcasts and even confused with leprosy in some countries. ^[15]

Another cause of mental distress in patients with vitiligo involves the unpredictability of the condition- which leads people with vitiligo to worry about their depigmentation worsening because the progression can be hard to predict.

Emotional distress of the condition and its negative impact on QoL can sometimes lead to patients resorting to alcohol abuse or even in severe



cases suicide attempts ^[6] Layegh P et al. (2010) reported suicide ideation and attempt are significantly prevalent in people affected with vitiligo. ^[7] Suicide can occur because of various risk factors including psychological, biological, genetic, cultural, social, environmental and physiological. ^[7]

The sad reality of the matter is that appearance of a person does impact people's opinions as it is the first impression and can have a negative effect on ability to seek employment in certain fields. Illustrated by a number of Studies that have shown a lower rate of employment in people with vitiligo, those that are already in employment and then develop vitiligo are not affected significantly.

Covering up the vitiligo patches could be time consuming and be a barrier to be able to do exercise such as swimming or jogging out of fear the camouflage will come off. Having to look for certain type of clothing- long sleeved is another factor that may impact quality of life. A persons clothing choice ay be restricted.

Children often lose vital days from school. Parents of children with vitiligo may have to take time off their work to regularly accompany them for hospital appointments.

Some individuals manage to focus on the positive aspects. They feel grateful that it is neither physically painful nor life threatening. They look for the beauty in their unique skin formation and some even creatively turn their white patches into body art.



More recently especially in some parts of the world there is a change in how vitiligo is perceived, awareness of the condition in the public domain has increased massively and there are numerous websites and social media platforms where vitiligo is portrayed positively with up to date, reliable information and inspiration. ^[6] This has for some, made living with vitiligo less distressing from a psychological perspective. UK television and magazines are not averse to using vitiligo models for some of the common high-street shops.

Another important factor in managing vitiligo is offering counselling to those affected. Papadopoulos et al. (1999) reported Psychological therapies such as cognitive behavioural therapy (CBT), a type of therapy that focuses on addressing thoughts and behaviours that have a negative impact on a person's well-being has been proven to help to improve body image, self-esteem and quality of life in people with vitiligo, also having a positive effect on course of the disease. ^[12]

Activities such as meditation, exercise and relaxation can help with reducing stress levels. Attending local vitiligo support groups can also help bring a sense of community and acceptance.



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Conclusion and Recommendation

Multiple studies have shown the profound negative affect vitiligo has on the QoL of patients affected. The level of acceptance of the condition can vary from person to person and place to place. It is however a known fact that vitiligo can lead to depression and anxiety in people affected. Awareness of the condition as well as public campaigns are useful in promoting acceptance of the disease.

Availabilities of psychological therapies such as CBT work well in conjunction with other forms of treatment. ^[14]

In conclusion, although progress in management of vitiligo has been made, understanding the various factors that affect QoL in patients plays an important role in patient management. Considering the stigmatization experience and coping in Vitiligo patients has to be emphasized in both future research and patient treatment.



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