

Social Appearance Anxiety and Its Impact on Patients with Verruca Vulgaris: A Comparative Study with Healthy Controls

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Abstract

Aim: Verruca vulgaris, commonly known as warts, is a benign skin condition caused by the human papillomavirus. These lesions can appear on visible parts of the body, leading to concerns about appearance and social interactions. This comparative study seeks to evaluate the social appearance anxiety experienced by individuals afflicted with verruca vulgaris on prominently visible body regions, employing the Social Appearance Anxiety Scale (SAAS) for comparative analysis with healthy counterparts.

Materials and Methods: A group of patients comprising 180 patients aged between 18 to 65 years, diagnosed with verruca vulgaris, alongside 170 healthy controls, participated in the examination. The participants undertook the SAAS, as well as the Hospital Anxiety and Depression Scales; supplementary assessments concerning dermatological quality of life and Visual Analog Scales (VASs) were also administered to the patient group.

Results: The average mean SAAS score for the patient group was 58.47, contrasting with the control group's mean score of 20.92, which signifies a markedly elevated level of anxiety among patients with verruca vulgaris ($P < 0.01$). A noteworthy positive correlation was identified between SAAS and VAS scores ($r = 0.325$, $P < 0.05$).

Conclusion: Visible verruca vulgaris lesions contribute to heightened social appearance anxiety. The findings suggest the need for integrating psychiatric care alongside dermatological treatment to address the psychological impact of the condition.

Keywords: Anxiety, human papillomavirus, skin diseases, verruca

INTRODUCTION

Verruca vulgaris, commonly known as warts, is a skin condition caused by the human papillomavirus. These benign lesions predominantly occur on hands, feet, and other visible areas of the body. The prevalence of verruca vulgaris varies, with higher rates observed in immunocompromised individuals and children.¹ Although generally benign, the presence of warts on visible parts can lead to psychological distress, particularly concerning body image and social interactions.²

The psychosomatic nature of dermatological conditions such as verruca vulgaris underscores the complex interplay between skin health and mental well-being.³ Psychological factors like anxiety and depression are known to exacerbate dermatological conditions, which in turn can worsen these psychological symptoms, creating a vicious cycle.⁴ Patients with visible skin lesions often experience a decline in self-esteem, leading to social withdrawal and impaired quality of life.⁵

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Social appearance anxiety, defined as the fear of being negatively evaluated based on one's appearance, is a significant concern for individuals with visible dermatological conditions.⁶ Despite extensive research on the psychiatric comorbidities associated with skin disorders, there is a paucity of studies specifically focusing on social appearance anxiety in patients with verruca vulgaris.⁷

This research seeks to assess social appearance anxiety among individuals exhibiting conspicuous verruca vulgaris lesions, juxtaposing these findings with those from a healthy control group.⁸ Furthermore, the investigation explores the relationship between social appearance anxiety, symptoms of anxiety and depression, the severity of the condition, and the quality of life, as it pertains to dermatological health.⁹

MATERIALS AND METHODS

This descriptive cross-sectional study was conducted among patients with verruca vulgaris, particularly those with visible lesions, at the Dermatology Department of Van Yüzüncü Yıl University Hospital. The study included volunteers who were aged 18-65 years, literate, and at least primary school graduates. Exclusion criteria included the presence of other psychiatric or skin conditions.

The Social Appearance Anxiety Scale (SAAS), the Hospital Anxiety and Depression (HAD) Scale, the Visual Analogue Scale (VAS), and the Dermatological Quality of Life Index (DLQI) were utilized in the assessment of the patient group. Conversely, the control group filled out the socio-demographic data form, along with the SAAS and HAD scales.

Ethical approval was obtained from the Van Yüzüncü Yıl University Hospital Ethics Committee (approval number: 2020/02-09, date: 21.02.2020). Informed consent was obtained from all participants.

Statistical analysis

Continuous variables were expressed as their mean, standard deviation, minimum, and maximum values, whereas categorical variables were presented as frequencies and percentages. The normal distribution of continuous variables was evaluated employing the Kolmogorov-Smirnov test. Independent t-tests facilitated the comparison of group means, and Pearson correlation analysis was utilized to investigate the interrelations among variables. A statistical significance threshold was established at 5%, and the analyses were performed utilizing IBM SPSS Statistics (Version 21.0; IBM Corp., Armonk, NY, USA).

RESULTS

A total of 180 verruca vulgaris patients (mean age: 32.15 ± 10.89) and 170 healthy controls (mean age: 31.40 ± 11.23) participated in the study. Socio-demographic characteristics are presented in Table 1.

The mean SAAS score in the patient group was 58.47, significantly higher than the control group's mean of 20.92 ($P < 0.01$). While HAD anxiety scores showed no significant difference, HAD depression scores were higher in the control group ($P < 0.01$) (Table 2).

Correlation analysis revealed a significant positive correlation between SAAS and VAS scores ($r = 0.325$, $P < 0.05$), indicating that visible lesions increased social appearance anxiety. No significant correlation was found between SAAS and DLQI scores (Table 3).

DISCUSSION

This study provides significant insights into the psychological impact of verruca vulgaris, particularly in relation to social appearance anxiety.¹⁰ The results indicate that individuals with verruca vulgaris, especially those with visible lesions, experience markedly higher levels of social appearance anxiety compared to healthy controls. These findings align with previous research demonstrating that dermatological conditions, particularly those affecting visible areas, can lead to profound psychological distress and social anxiety.¹¹

The mean SAAS score for the patient group was significantly higher than that of the control group, suggesting that the visibility of verruca vulgaris plays a crucial role in exacerbating social anxiety.¹² Similar results have been observed in studies focusing on other visible dermatological conditions, such as acne, psoriasis, and vitiligo, where patients exhibited heightened anxiety related to their appearance.¹³ This correlation underscores the pervasive impact of visible skin conditions on patients' psychological well-being, extending beyond mere cosmetic concerns.¹⁴

Our findings are consistent with previous studies that have identified a positive correlation between the severity of visible lesions and social appearance anxiety. The significant correlation between SAAS and VAS scores in our study suggests that the more visible and severe the lesions, the greater the anxiety experienced by the patients. This is in line with research by Sule Afsar et al.¹⁵, who also reported that patients with more prominent dermatological conditions tend to suffer from higher levels of social anxiety and reduced quality of life. However, unlike some other skin conditions where quality of life is severely impacted, our study did not find a strong correlation between SAAS and DLQI

scores, indicating that while appearance-related anxiety is significant, it may not always translate into broader quality of life measures. This may reflect the specific psychological dynamics of verruca vulgaris, where the primary concern is the social perception of visible lesions rather than functional impairment or physical discomfort.

One noteworthy aspect of our findings is the contrast between the anxiety and depression scores in the patient and control groups. While the SAAS scores were significantly higher in the patient group, the HAD depression scores were actually higher in the control group. Although this result may initially appear unexpected, it highlights the specificity of social appearance anxiety as a distinct psychological construct that does not necessarily correlate with general depression or anxiety levels. This distinction is important for clinical practice, as it suggests that treating verruca vulgaris requires a targeted approach that specifically addresses appearance-related concerns rather than general psychological distress.

The literature on psychosomatic dermatology highlights the bidirectional relationship between skin health and

psychological well-being. Psychological stress can exacerbate skin conditions, and in turn, these conditions can worsen psychological symptoms, creating a vicious cycle.¹⁶ Our study adds to this body of knowledge by emphasizing the need for dermatologists to be aware of the potential psychological implications of visible lesions and to consider referring patients for psychological support when necessary. The integration of cognitive-behavioral therapy and other psychosocial interventions into dermatological care has been shown to be effective in managing the psychological burden associated with skin conditions.¹⁷ Given the high levels of social appearance anxiety observed in our study, such interventions could be particularly beneficial for patients with verruca vulgaris.¹⁸

Furthermore, the results of this study have implications for public health and patient education. There is a need for increased awareness among healthcare providers about the psychosocial impacts of dermatological conditions, particularly those affecting visible areas of the body.¹⁹ Educating patients about the psychological aspects of their condition and providing them with coping strategies can help mitigate the anxiety associated

Table 1. Socio-demographic characteristics of participants

Characteristic	Patient group (n = 180)	Control group (n = 170)
Age (mean ± SD)	32.15±10.89	31.40±11.23
Gender (male/female)	92/88	90/80
Marital Status (single/married)	100/80	95/75
Educational status (primary/high school/university)	60/40/80	65/35/70
Occupation (housewife/unemployed/student/officer)	40/30/70/40	45/25/60/40
Smoking (yes/no)	110/70	105/65
Alcohol (yes/no)	50/130	55/115
Psychiatric history (yes/no)	25/155	30/140

SD: Standard deviation

Table 2. Comparison of SAAS and HAD scores in patient and control groups

Scale	Patient group (mean ± SD)	Control group (mean ± SD)	P -value
SAAS	58.47±8.75	20.92±9.45	< 0.001
HAD-A	6.92±2.53	7.11±2.65	0.534
HAD-D	7.23±1.64	8.05±2.27	< 0.001

HAD: Hospital Anxiety and Depression Scale, SAAS: Social Appearance Anxiety Scale, SD: Standard deviation

Table 3. Correlations in the patient group

Variable	SAAS	HAD-A	HAD-D	DLQI	VAS
SAAS	1	0.498**	0.070	0.065	0.325**
HAD-A	0.498**	1	0.122	0.284**	0.250*
HAD-D	0.070	0.122	1	0.009	0.180
DLQI	0.065	0.284**	0.009	1	0.683**
VAS	0.325**	0.250*	0.180	0.683**	1

*P < 0.05, **P < 0.01

HAD: Hospital Anxiety and Depression Scale, SAAS: Social Appearance Anxiety Scale, VAS: Visual Analogue Scale, DLQI: Dermatological Quality of Life Index

with social appearance concerns.²⁰ Moreover, public health campaigns aimed at reducing the stigma associated with visible skin conditions could also play a role in alleviating the social anxiety experienced by these patients.²¹

In a recent study, 543 patients with perioral dermatitis, acne, folliculitis, and rosacea in the facial area were compared with 497 healthy volunteers in terms of psychiatric symptoms such as anxiety and depression. Among the compared facial dermatoses, the highest anxiety and depression scores were found in acne patients.²²

The meta-analysis showed that patients with inflammatory bowel disease experienced a high prevalence of symptoms of anxiety and depression, with approximately one in three patients affected by anxiety symptoms and one in four patients affected by depression symptoms.²³

There are not many studies demonstrating that verruca vulgaris has a significant negative effect on quality of life. It has been reported that the presence of psychiatric symptoms is a strong determinant of impairment in quality of life in various dermatological diseases.^{24,25}

Comparing our results with existing literature, it is evident that verruca vulgaris shares many similarities with other dermatological conditions in terms of its psychological impact. However, the specific nature of social appearance anxiety in verruca vulgaris patients, as revealed by our study, suggests that tailored therapeutic approaches are necessary. Future research should explore the long-term psychological outcomes of patients with verruca vulgaris and the effectiveness of various psychosocial interventions in reducing social appearance anxiety.

Overall, our study underscores the importance of a holistic approach to the treatment of verruca vulgaris that addresses both the physical and psychological aspects of the condition. By recognizing and addressing the social appearance anxiety experienced by patients, healthcare providers can improve treatment outcomes and enhance the overall quality of life for those affected by this common but often distressing condition.

CONCLUSION

This research emphasizes the significant impact of verruca vulgaris on social appearance anxiety and advocates for a multidisciplinary treatment strategy. By simultaneously addressing the dermatological and psychological dimensions of this condition, it is possible to achieve enhanced health outcomes and a superior quality of life for affected individuals. Subsequent investigations should examine the significance of psychosocial interventions and the potential benefits of

incorporating mental health services into the conventional treatment framework for verruca vulgaris.

Ethics

Ethics Committee Approval: Ethical approval was obtained from the Van Yüzüncü Yıl University Hospital ethics committee (approval number: 2020/02-09, date: 21.02.2020).

Informed Consent: Informed consent was obtained from all participants.

Footnotes

Authorship Contributions

Surgical and Medical Practices: M.T., N.K., F.K., Concept: M.T., N.C., F.K., Design: M.T., N.C., N.K., Data Collection or Processing: F.K., Analysis or Interpretation: M.T., F.K., Literature Search: M.T., N.C., N.K., F.K., Writing: M.T., N.C., N.K., F.K.

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