

Translation and Validation of the Vitiligo Impact Scale

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Vitiligo, an autoimmune chronic skin condition significantly impacts an individual's quality of life. Appearance related conditions can lead to stigma, and social withdrawal, associated with anxiety, depression, and body image dissatisfaction, influencing relationships, work performance, and overall psychological well-being. The present study aimed to undertake the translation and validation of the Vitiligo Impact Scale (VIS-22), a standardized tool designed to assess the quality of life of individuals with vitiligo (Gupta et al., 2014). The translated scale was validated on Pakistani population ($N = 270$) with a mean age of 28.40 years ($SD = 8.77$). As per the gender representation, total 90 (33.3%) men and 180 (66.7%) women were included. The procedure of translation was based on MAPI guidelines and criterion validation including convergent or construct validity and known-group validity were also assessed. A high reliability coefficient of .83 was found. Results revealed strong psychometric properties of the translated Urdu version of VIS-22 which align with previous studies. These findings imply that the Urdu version of VIS-22 appears to be a valid standardized tool that can be used for evaluating psychosocial impact of vitiligo, offering healthcare professionals a robust tool for patient-centered care and treatment planning for Pakistani population.

Keywords. Psychosocial impact, quality of life, vitiligo

Vitiligo is an acquired depigmentation skin condition, basically it happens because the immune system leads to melanocyte disruption. It

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might be the most frequent reason for depigmentation, with a worldwide prevalence around 1%, however it has not shown a good response to the latest therapies. Despite having a significant physical impact on the skin, its effects go beyond that (Ezzedine et al., 2021). With an estimated prevalence ranging from 0.1 to 8%, it is an acquired, idiopathic, and widespread depigmentation condition. The psychosocial effects of vitiligo can be severe, affecting a person's self-worth, body image, interpersonal connections, and overall quality of life (QoL) on emotional, social, and psychological aspects. Because of its extensive effects, vitiligo is not only a dermatological problem but also an important issue for an individual's mental and emotional health (Pahwa et al., 2013). People often notice and ask questions about individuals who have vitiligo, especially those with darker skin tones, which can cause a wide range of emotional reactions. White patches may occur unexpectedly and spread over time due to the unpredictable nature of vitiligo that can cause feelings of ambiguity, irritation and anxiety regarding potential outcomes. As they struggle with physical changes that depart from cultural ideals of skin uniformity, people with vitiligo may experience a loss of confidence (Mashayekhi et al., 2010).

Body image-related issues play a major role in the psychosocial effects of vitiligo. Self-consciousness and humiliation may be brought on by the difference between depigmented areas and healthy skin. This may lead to people avoiding activities that expose their skin, such as swimming or wearing short sleeves, to hide their lesions. As a result, this self-imposed seclusion can reduce social interaction and obstruct the growth of deep connections, aggravating feelings of loneliness and isolation (Ezzedine et al., 2021). The difficulties individuals with vitiligo encounter are made even harder by society's reliance on conventional beauty standards. Unrealistic expectations are perpetuated when perfect, evenly colored skin is presented as the ideal in the media. As a result, feelings of inadequacy and unworthiness may become more intense for those who have vitiligo. Because of this, vitiligo has a psychological impact that goes beyond the skin and affects one's emotional and mental well-being (Linthorst et al., 2009).

Children and teenagers who have the disorder may also experience difficulties. Vitiligo has a psychosocial impact that is not just restricted to adults. Peer bullying, taunting, and stigmatization caused by obvious differences can negatively affect a person's emotional growth and sense of self. Vitiligo can impede identity formation during these crucial formative years by introducing complications associated to body image and acceptance (Krishna et al., 2013). Vitiligo appears to be more prevalent in women, and approximately 50% of cases begin during childhood, but they can occur in any circumstance and at any time

(Silverberg, 2015). Men and women of all ages, including children, suffer from skin conditions in the same way, but women and young girls are more likely to seek treatment. This is because, at the sociocultural level, women experience negative effects more frequently than males do (Ezzedine et al., 2021).

According to the findings of numerous studies, vitiligo affects patients' emotional, social, and vocational well-being (Parsad et al., 2003). According to Premkumar et al. (2013), discrimination at work and peer pressure among children and adolescents have both been documented. The difficulties in getting married and the marital discord experienced by young adults are the most stressful situations (Pahwa et al., 2013). Several investigations have been done to determine the QoL of individuals with vitiligo. According to the findings, these individuals frequently exhibit psychological issues such as shame, anxiety, sadness, repressed interpersonal and social behavior, poor body image, sleep difficulties, and suicidal thoughts (Senol & Yucelten, 2013). In conclusion, vitiligo has a profound psychosocial influence that permeates many facets of an individual's life and goes well beyond its physical manifestations. Vitiligo-related emotional issues, social difficulties, and detrimental self-perception can have a substantial impact on one's self-worth, social interactions and QoL. Giving those suffering from vitiligo holistic care is essential to ensuring they receive the assistance they need to deal with the emotional hardships brought on by this skin condition. This requires recognizing and addressing the psychosocial aspects of the condition.

The QoL of people with vitiligo can be assessed using a variety of scales, including general health measurements (Visual Analogue Scale) (Ezzedine et al., 2021) and questionnaires designed specifically for skin diseases (Finlay, 2004; Krishna et al., 2013). Three important non-specific skin disease questionnaires are the dermatological life quality index (DLQI), Skindex-29 and Skindex 16 (Shren et al., 2001). The available vitiligo-specific scales are the Vitiligo Impact Scale and Vitiligo Life Quality Index (Hedayat et al., 2016; Senol & Yucelten, 2013). The advantage of these vitiligo-specific scales is that they contain questions relevant to the condition, which increases their acceptability among dermatologists and patients. Although several dermatological and QoL scales are available in Urdu, there still is a sort of scarcity when it comes to culturally adapted, and psychometrically validated vitiligo-specific instruments for the Pakistani population. Most of the Urdu based tools that are used tend to look at general dermatological QoL or psychological distress, and they may not really target the particular psychosocial impact related to vitiligo. For example, stigmatization, concealment tendencies, social withdrawal,

worries linked with marriage, body image dissatisfaction, and even culturally framed beliefs about depigmented skin lesions. Psychometric validation in Pakistan was needed, because it cannot simply assume that a tool created in another language or for a different group will stay reliable and valid in all contexts. Cross-cultural adaptation helps make sure the instrument truly mirrors local phrases, interpretations, and day to day psychosocial realities related to vitiligo. As a result, the tool becomes more clinically useful and more reliable for research work in Pakistan. [Krishna et al \(2013\)](#) originally developed Vitiligo Impact Scale which had 27 questions in total, from which one question was mandatory for unmarried individuals and five for married people. To reduce the likelihood that individuals who are married and those who are not must have different final scores, [Gupta et al \(2014\)](#) revised the original version by distributing the questions between the two groups equally. As a result, the scale has 22 questions and has been proven to be effective in assessing QoL in previous studies ([Ezzedine et al., 2021](#)). Because vitiligo's consequences on a person's quality of life might vary depending on their skin type, prior beliefs and taboos, education level, social position, and geographic region. Verifying VIS-22's efficacy across a range of groups is vital. Thus, the current study's goal was to translate and validate the VIS-22's Urdu version among Pakistani population.

Method

Participants

A total of $N = 270$ individuals with vitiligo visiting dermatology units of public and private hospitals in Lahore, Pakistan were recruited through non-probability purposive sampling technique. Online data collection was also done due to the non-availability of the participants in hospitals. Participants were selected as per following inclusion and exclusion criteria. Inclusion criteria were to include participants who had been screened and provided by the dermatologist with a vitiligo diagnosis. The lack of melanocytes and pale, milky white spots on the skin served as the basis for the diagnosis. We selected people with white vitiligo patches on both exposed and unexposed body parts. People with formal education who are proficient in Urdu and English in terms of comprehension, reading, and writing. Screening questions were used to exclude people from any other medical or mental health issues. Participants in this study were excluded if they had any skin conditions other than vitiligo, such as psoriasis, eczema, acne, allergies, or fungal infections. Out of the 270 participants, 90 men and 180 women were recruited for this study. Mean age of the participants was 28.40 years ($SD = 8.77$); while mean monthly income of the

participants was PKR 189636.3 ($SD = 271411.2$). In addition, the mean age at the onset of Vitiligo was 20.90 years ($SD = 8.59$); whereas duration of Vitiligo was with mean of 7.37 years ($SD = 5.25$) and impact of Vitiligo was 3.33 ($SD = 1.00$). All the 270 participants have no physical and / or psychological comorbidity.

Table 1: *Demographic Characteristics of the Participants (N = 270)*

Demographics	<i>f</i>	%
Gender		
Men	90	33.30
Women	180	66.70
Education		
Matriculation	21	7.80
Undergraduate	46	17.00
Graduate	70	25.90
Post-Graduate	133	49.30
Work Status		
Working	111	41.10
Non-Working	84	31.10
Marital Status		
Unmarried	164	60.70
Married	105	38.90
Widow	1	0.40
Family System		
Nuclear	145	53.70
Joint	125	46.30
Area of Residence		
Urban	183	67.80
Rural	87	32.20
Affected Body Parts		
Hand	16	5.90
Feet	15	5.60
Face	30	11.10
Neck	10	3.70
Trunk	10	3.70
Legs	2	7.80
Arms	5	1.90
More than one body part	163	60.40
Types of Vitiligo		
Exposed	125	46.30
Unexposed	65	24.10
Both	80	29.60
Monthly Follow-ups		
Once a month	95	35.20
Twice	78	28.90
More than two	33	12.20

Continued....

Demographics	<i>f</i>	%
Current Treatment		
Yes	183	67.80
No	82	30.40
Hospital Background		
Private	50	18.50
Public	217	80.40
Both	1	0.40
Medication		
Yes	57	21.10
No	208	77.00
Family History of Vitiligo		
Yes	57	21.10
No	208	77.00

Measures

The following measures were used to assess the study variables.

Clinical Information Sheet

A clinical information sheet was also used to gather knowledge about the exclusive information regarding age at the onset of Vitiligo, duration of condition, affected body parts, types of vitiligo, monthly follow ups, current treatment, hospital background, medication, physical/psychological comorbid conditions, family history of skin condition and overall impact of vitiligo.

Vitiligo Impact Scale (VIS-22)

In this study, the Vitiligo Impact Scale (VIS-22), developed by Gupta et al. (2014), is translated and linguistically validated. This scale was developed with the goal of evaluating the psychological effects or influence that Vitiligo has on a person's QoL. There were 27 questions on the original scale (Krishna et al., 2013). The final instrument has 22 items after validation and adaption measuring attitude (item 1, 4, 17, 19), anxiety (2, 11), social interactions (3, 12, 13), self-confidence (5, 18), depression (6, 9, 10, 14), treatment (7, 15, 16) family (8), marriage (20), occupation (21) and school or college (22). Every question has a score between 0 and 3 (0 being not at all, 1 being a little, 2 being a lot, and 3 being very much). Higher ratings indicate a greater impact on QoL. The total score goes from 0 to 66.

Dermatology Life Quality Index (DLQI)

The DLQI was employed as a comparison tool in this investigation to ensure validity. The use of DLQI is widespread in several skin

conditions. It has ten items and assesses how skin conditions have affected essential aspects of daily living during the past seven days. Four different answers are available for each item: (0) *not relevant at all*, (1) *a little*, (2) *a lot*, and (3) *very much*. A score of thirty is the highest possible. High scores indicate greater influence in life. The scoring ranges are as follows: (Finlay & Khan, 1994) 0–1 have no effect on the patient's life, 2–5 have a little effect, 6–10 have a mild effect, 11–20 have a very large effect, and 21–30 have a severe impact.

Satisfaction with Life Scale (SWLS)

A quick 5-item survey called the SWLS is used to gauge general cognitive judgements of life satisfaction. The score is summarized by a raw score, which ranges from 5 to 35. Higher scores indicated better satisfaction with life. Diener et al. (1993) classified the scorers into six groups based on their degree of satisfaction: extremely satisfied (30–35), satisfied (25–29), satisfied (20–24), slightly satisfied (15–19), dissatisfied (10–14), and extremely dissatisfied (5–9).

Demographic Information Sheet

A self-built demographic information sheet was used to gather knowledge about the exclusive information of the Vitiligo patients such as age, gender, education, work status, marital status, family system, monthly family income and area of residence.

Procedure

Data collection began after receiving official approval from the relevant departments. Participants were given clinical and demographic information sheets as well as evaluation instruments. For the study population's convenience, the original VIS 22, which was written in English by Gupta et al. (2014), was translated into Urdu. The four steps of the MAPI translation process were done. Two independent forward translations were done by PhD scholars who have command on English Language. After selecting the most suitable translated version, two independent backward translations were done from two different Ph.D Scholars and Urdu language experts. They were totally unaware with the English version. After finalizing the best Urdu translated version, pilot testing was done before administering the tool on targeted population. Participants were asked to provide feedback on the instrument's relevance, understandability, and applicability after completing the questionnaire. Participants reported no difficulties. To evaluate test-retest reliability, participants were given the DLQI and

VIS 22 (Urdu Version) once again to complete after a two-week interval. It was determined that the test-retest reliability was $\alpha = .79$. SPSS was used to compute all analyses.

Results

To validate the VIS-22 Urdu version, convergent or construct validity, known group validity and internal consistencies were calculated. Pearson Product Moment Correlation Analysis was done through SPSS to determine convergent or construct validity of the translated tool. Criterion validation process was also done as group differences were examined in order to assess the known group validity. Variations in terms of psychosocial impact of vitiligo were checked using independent sample *t*-test and two way ANOVA. Internal consistency of the assessment measures was determined through Cronbach alpha reliability.

Clinical information was also obtained from the participants with intend to assess the types of vitiligo, duration of skin condition, age at the onset of vitiligo along with necessary information presented in Table 2. In the current study, 125 individuals reported exposed vitiligo, 65 unexposed and 80 participants with both types of vitiligo. Most of the participants 163(60.4%) reported vitiligo patches on more than one body part. Only 57 participants reported family history of vitiligo. To assess the internal consistencies of VIS-22 Urdu and English Versions along with DLQI and Life Satisfaction Scale, Cronbach's alpha reliability coefficients were calculated as shown in Table below.

Table 2: *Psychometric Properties of the Scales*

Scale	<i>k</i>	<i>M</i>	<i>SD</i>	Range	α
VIS-ENGLISH	22	29.12	10.21	7-50	.86
VIS-URDU	22	30.35	10.23	7-52	.83
DLQI	10	11.48	5.85	1-25	.82
Life Satisfaction	05	15.60	3.84	10-23	.62

Note. VIS = Vitiligo Impact Scale, DLQI = Dermatology Life Quality Index.

The alpha reliability coefficients of all three scales reflected good to excellent ranges of reliability. Findings suggested that English version and Urdu version both along with DLQI and life satisfaction scale were easily understood by the study population resulting satisfactory internal consistencies.

Validation of the VIS-22 Urdu Translation

Initially, Urdu translation of VIS-22 was administered on small sample ($N = 30$) to assess the accuracy and appropriateness of the translated version. Later, criterion validation process including convergent or construct validity and group known validity were assessed. Group differences were examined using independent sample t -test and two-way ANOVA.

Table 3: *Item Level Correlation and Mean Differences Between VIS-22 English and VIS-22 Urdu*

S. No	Statements	Urdu Version M (SD)	English Version M (SD)	R	M(D)
1	Attitude towards disease	1.80(.99)	1.43(.93)	.68***	.36*
2	Anxiety	.466(.93)	.933(1.11)	.62***	-.46**
3	Impact & advice by others	1.80(.76)	1.73(.86)	.59**	.06
4	Attitude of others towards disease	1.53(.93)	1.46(.93)	.80***	.06
5	Self-Confidence	1.80(1.20)	1.70(.91)	.85***	.10
6	Feelings of helplessness	1.10(.88)	1.36(.80)	.57**	-.26
7	Treatment adherence	1.70(.98)	1.53(.73)	.66***	.16
8	Family	2.30(.87)	2.13(.77)	.75***	.16
9	Life orientation with disease	1.16(1.08)	1.15(.86)	.79***	-.33*
10	Depression	1.06(.90)	1.23(.77)	.76***	-.16
11	Anxiety	2.16(.87)	2.00(.87)	.86***	.16
12	Avoidance of social interactions	0.56(.89)	.833(.79)	.81***	-.26**
13	Avoidance by others	0.30(.83)	.266(.69)	.93***	.03
14	Suicidal ideation	0.23(.43)	.433(.67)	.82***	-.20*
15	Dietary restrictions	1.70(.83)	1.43(.77)	.79***	.26**
16	Financial burden	2.13(.81)	1.66(.84)	.71***	.46***
17	Disease perception	1.73(.82)	1.50(.86)	.72***	.23
18	Self-Confidence	1.83(1.08)	1.73(.90)	.75***	.10
19	Worry about disease progression	2.93(.25)	2.86(.434)	.54**	.06
20A	Marital Adjustment	0.53(1.0)	0.50(.973)	.98***	.03
20B	Marriage Prospects	1.70(1.36)	1.56(1.30)	.96***	.13
21	Occupation	0.33(.66)	0.30(.59)	.96***	.033
22	School or College	0.16(.59)	0.13(.43)	.98***	.033

* $p < .05$, ** $p < .01$, *** $p < .001$

The above Table 3 showed item level correlations between VIS-22 English and Urdu versions. Results indicated highly significant and positive correlations between all the items of English and Urdu versions. These significant correlation coefficients underscore a substantial and consistent linear relationship between the English and Urdu versions of the scale. Overall, the findings point to a robust concordance between the two language versions for all scale items.

Convergent Validity

Convergent validity indicates whether a test that is designed to measure a particular construct correlates with other tests that assess the same or similar construct. To ensure the convergent validity, DLQI was used as it also measures the impact of skin conditions on overall QoL (Finlay, 2004). It was hypothesized that VIS-22 Urdu and English versions are likely to be positively correlated with DLQI and negatively correlated with life satisfaction scale. Pearson Product Moment Correlation Analysis was done using SPSS. Findings revealed positive correlation between VIS-22 Urdu version, VIS-22 English version and DLQI suggesting satisfactory convergent validity as presented below.

Table 4: *Correlation between Original VIS, Urdu VIS, DLQI and Life Satisfaction*

Variables	1	2	3	4
1.DLQI	-	.54**	.49**	-.45**
2. VIS-Urdu		-	.64***	-.49**
3. VIS-English			-	-.62***
4. Life Satisfaction Scale				-

Note. VIS = Vitiligo Impact Scale, DLQI = Dermatology Life Quality Index.
** $p < .01$, *** $p < .001$.

The above Table showed positive correlation between VIS-22 and comparative questionnaire. Findings reflected that DLQI was positively correlated with both English and Urdu versions of VIS, suggesting accuracy of the translated tool. Size of correlation of DLQI with both Urdu and English Versions of VIS-22 is comparable, reflecting moderate correlation. Furthermore, Life Satisfaction Scale was also administered on individuals with Vitiligo. The r value of correlation suggested highly significant and negative relationship, which reflects that individuals with higher psychosocial impact of vitiligo tend to have poor life satisfaction.

Criterion Validity

Known group validity is also called criterion validation process. It's a type of concept validation where the validity of an instrument is based on how well it can show different scores for groups that are known to differ on the variables being assessed. To evaluate the group differences, two-way ANOVA and the independent sample *t*-test are used. Demographic and clinical factors including family system, current treatment history, exposed and unexposed types of vitiligo and gender were selected that are presented below.

Findings of the independent sample *t*-test revealed significant differences in terms of psychosocial impact of vitiligo. Results revealed that individuals living in nuclear family system tend to report higher psychosocial impact of vitiligo ($M = 31.49$, $SD = 10.50$) as compared to those who were from joint family system ($M = 29.04$; $SD = 9.78$). This finding ($t = 1.97$, $p = .04$, Cohen's $d = .24$) suggested that social support from joint family systems may help individuals to mitigate or reduce the amount of psychosocial burden, which they have experienced due to this chronic skin condition.

Results of the *t*-test ($t = 3.02$, $p = .00$, Cohen's $d = .40$) revealed that individuals seeking medical treatment for vitiligo tend to have higher psychosocial impact of vitiligo ($M = 31.75$, $SD = 9.98$) as compared to those who were not currently followed any treatment ($M = 27.69$, $SD = 10.30$). As per previous literature, vitiligo is a non-treatable skin condition. It can be managed but not properly cured. In the present study, although most of the individuals followed treatment plans but not significant results had occurred even with a proper regimen. This may be a major factor due to which most of the individuals seeking treatment reported higher psychosocial impact of vitiligo.

To determine the impact of vitiligo on individuals who had white patches on only one body part; face and legs, *t* test analysis was run. Results revealed that individuals having white lesions on face tend to exhibit higher psychosocial burden of this chronic skin condition ($M = 29.86$, $SD = 7.99$) as compared to those who reported white lesions on their legs only ($M = 22.73$, $SD = 7.42$). This finding ($t = 3.44$, $p = .001$, Cohen's $d = .92$) reflected that having chronic skin condition on exposed body parts tend to develop psychosocial concerns in individuals. To examine the gender differences in terms of psychosocial impact of vitiligo in individuals with exposed and unexposed vitiligo, two-way ANOVA analysis was run as presented below.

Table 5: *Two Way ANOVA Comparing Gender Differences and Types of Vitiligo in Terms of Psychosocial Impact*

Gender	Types of Vitiligo	<i>M</i>	<i>SD</i>
Men	Exposed	30.40	8.00
	Unexposed	22.52	9.42
Women	Exposed	28.35	8.60
	Unexposed	27.27	9.43

Two way ANOVA indicated nonsignificant main effect for gender, $F([1], [186]) = [.909], p = [.34]$, partial $\eta^2 = [.00]$; significant main effect for types of vitiligo, $F([3], 18) = [9.93], p = [.00]$, partial $\eta^2 = [.05]$ and a significant interaction between gender and types of vitiligo, $F([1], [186]) = [5.72], p = [.01]$, partial $\eta^2 = [.03]$. Findings indicated that men with exposed vitiligo tend to report or experience higher psychosocial burden as compared to women. Moreover, women with unexposed vitiligo tend to report higher psychosocial issues as compared to men. The present findings suggested that men with exposed vitiligo were more psychologically and socially affected whereas, women were more concerned about unexposed vitiligo.

Discussion

Individuals with vitiligo are reported to experience significant psychosocial consequences. Asian residents are especially more prone to vitiligo-related psychological morbidity because of the stark contrast that their darker skin tones cause (Gupta et al., 2014). In Asian societies like Pakistan, skin conditions carry a social stigma affecting the psychological wellbeing of individuals. It has an impact on their interpersonal interactions. Many individuals with vitiligo believe they are the targets of discrimination and criticism on physical appearance. Due to widespread gender inequality in society, Indian women likely have the worst QoL impairment compared to men (Parsad et al., 2003). However, interestingly a new finding emerged in the present study, similar pattern of psychosocial burden was reflected in the VIS-22 scores, which demonstrated that men appeared to be more distress with exposed vitiligo than women. The scale showed good psychometric performance, supporting its appropriateness for assessing disease-specific QoL in this population. In general, men are given less attention than women even though they may experience similar conflicts or problems in life. Society or culture shapes gender roles and obligations, which are subject to change over time. The behaviors, attitudes, and expectations of masculinity and femininity in society are defined by these roles. The majority of the time, people is expected to conform to

these positions and exhibit these conventional behaviors. Living within the boundaries of these linked behaviors, however, may be uncomfortable, challenging, and stressful for many men.

However, the findings that men appeared to be more concerned and distressed as compared to women might add to the newer trends observed in the society where skin color and appearance is now considered equally important for men. Beauty and skin treatments are now commonly associated with men who indulge into similar skin care practices. A qualitative study ([Grimes & Miller, 2018](#)) highlighted the psychosocial impact of vitiligo and found both genders experiencing the same degree of psychosocial stress as a result of having vitiligo. In confirmation with the present study, men were shown to be more worried about exposed vitiligo. Men and women both tend to share similar concerns and standards for physical appearance as well as social desirability in Pakistan ([Nasir, 2017](#)). Therefore, it can be concluded the findings are consistent with previous research suggesting men and women sharing somewhat similar psychosocial impact. Research has identified some major psychological issues and challenges faced by individuals with exposed vitiligo. Ezzedine et al. (2021) has been identified that most people with exposed vitiligo tend to struggle with stigma, self-consciousness, depression, relational problems, adjustment challenges, negative emotions, and suicidal thoughts, fear of rejection, poor body image, and anxiety-related problems. According to the current study, people with white lesions on their faces are more likely to experience the psychosocial consequences of vitiligo than people with lesions on unexposed body regions including legs and arms.

In Pakistan, the fashion of clothing tends involves mostly fully covered clothes, makes it easier to conceal unexposed vitiligo patches. It facilitates individuals to reduce routine stress as compared to those with visible vitiligo patches finding it difficult to dress ([Tabassum et al., 2023](#)). Therefore, the present findings are consistent with the available data. Since there is no known treatment for vitiligo ([American Academy of Dermatology, 2021](#)), Repigmentation can aid in restoring lost skin color, although it can fade with time. Due to therapy outcomes that were not statistically significant, many people expressed stress. After therapy, the majority of patients indicated that their vitiligo tends to progress rapidly. A study published in the Journal of the [American Academy of Dermatology in 2023](#) examined individuals' perspectives after receiving vitiligo therapy. They found that more than half of those surveyed reported stress, which accelerated vitiligo growth, because of their regimen's failure to provide results. The findings of the present reveal that individuals who adhered to their treatment plan tend to experience improved psychological wellbeing as compared to non-

adherents. The findings have been confirmed by previous research. Additionally, it was found that vitiligo sufferers living in joint family systems tend to experience less psychosocial burden than those in nuclear families. Studies have shown that family appears to be a significant contributor to both emotional and routine functioning support (Ning et al., 2022).

The findings of the present study support that the Urdu version of the Vitiligo Impact Scale-22 (VIS-22) is a valid and reliable tool for assessing the psychosocial impact of vitiligo in the Pakistani population. The scale also demonstrated satisfactory internal consistency and test-retest reliability, reflecting stable measurement over time. Importantly, the use of Urdu, the national language, improved linguistic accessibility and ensured that patients could clearly understand and respond to items without difficulty, thereby reducing misunderstanding and improving response accuracy. Overall, these findings indicate that the Urdu version of VIS-22 is culturally and linguistically appropriate for Pakistani population, enabling more accurate assessment of vitiligo-related psychosocial burden.

Focusing the psychosocial consequences of vitiligo can help to identify routine issues and social challenges faced by these individuals. This can facilitate provision of psychological support for those surviving with this chronic condition. They require constant social and familial support in all domains of personal, social and occupational life. Individuals report being treated as socially undesirable due to their skin condition and a more accepting attitude on part of society can contribute significantly towards a healthier and more adaptive functioning of these individuals.

Limitations and Recommendations

The study faced certain limitations. First, in the current study, most of the individuals were young adults. The VIS-22 scale was verified only in this age category. To ensure the applicability of VIS-22 translated tool, people from all age groups should be included. Second, because of the small sample size, it was not possible to develop norms for the scale, which would have strengthened its psychometric validity. Future studies using the Urdu version of VIS-22 ought to include a wider sample size and a range of ages. In addition, VIS-22's psychometric characteristics can be demonstrated for a variety of demographic variables, not all of which were employed in this investigation.

Implications

The results of the study demonstrated the Urdu version's strong linguistic validity and reliability, as evidenced by the translated tool's stronger psychometric characteristics. The data also demonstrated that future research in Pakistan and other Urdu-speaking communities may utilize advantage of the Urdu version of VIS-22. Urdu version of VIS-22 can enhance communication between researchers, healthcare providers, and individuals, which is critical for obtaining accurate data and providing appropriate care.

Conclusion

In conclusion, vitiligo has a profound psychosocial impact that goes far beyond the physical manifestations of the condition. It may have a major impact on individual's overall QoL. The psychosocial issues caused by vitiligo emphasize how crucial it is to spread knowledge and support individuals who have been affected by it. The findings proved that the VIS-22 Urdu version is an accurate, responsive, and valid tool for measuring the impact of vitiligo. To accept it as a standard vitiligo-specific scale for measuring QoL, additional validation in other geographic areas of Pakistan and numerous other nations is necessary. Helping people with vitiligo overcome these psychosocial challenges and lead fulfilling lives free from the burden of stigma and discrimination requires promoting acceptance, educating society about the condition, and cultivating a feeling of community. For everyone who lives with vitiligo, a more sympathetic and encouraging environment are required.

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