

**How Dermatological Health affect Sexual Function: A gender base comparison in Southern Rajasthan****Bhagyashree Garasiya<sup>1</sup>, Sonakshi Pargi<sup>2</sup>, Amrit Gausai<sup>3</sup>, Harendra Meena<sup>4</sup>, Ronak Jain<sup>5</sup>**<sup>1</sup>Associate Professor, Department of psychiatry, Government Medical College, Dungarpur (Rajasthan)<sup>2</sup>Associate Professor, Department of skin and venereal disease, Government Medical College, Dungarpur (Rajasthan)<sup>3</sup>Junior specialist Department of psychiatry, Government Medical College, Dungarpur (Rajasthan)<sup>4</sup>Junior specialist, Department of skin and venereal disease, Government Medical College, Dungarpur (Rajasthan)<sup>5</sup>Junior resident, Department of skin and venereal disease, Government Medical College, Dungarpur (Rajasthan)

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Conflict of interest: Nil

**Abstract:**

This study investigates the relationship between dermatological health and sexual function in males and females in southern Rajasthan, focusing on a predominantly tribal population. Significant correlations were found between dermatological conditions and sexual quality of life (SQOL) in both genders, with stronger associations in females. In males, better dermatological health was linked to improve SQOL, though erectile function showed a weaker correlation. For females, moderate correlations were observed between SQOL and dermatological health, with a strong link to sexual function. These findings highlight the need for integrated healthcare approaches that address both dermatological and sexual health, particularly in underserved tribal communities.

**Keywords:** Dermatological health, Sexual Quality of Life, Tribal.

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**Introduction**

Sexual health is an important part of general well-being, affecting both physical and psychological elements of life. Erectile dysfunction (ED) and other sexual dysfunctions have been extensively researched, yielding important medical and behavioural consequences. The Massachusetts Male Ageing Study revealed the incidence of impotence and its relationship to many health conditions, emphasising the complexities of sexual dysfunction [1]. Subsequent research, like as that conducted by Lue [2], has gone into further depth on the pathogenesis and management of ED, with a focus on its influence on male health.

Management of sexual difficulties frequently necessitates a multimodal strategy that addresses both physiological and psychological aspects [3]. Several therapy strategies have been investigated, including pharmaceutical therapies such as PDE5 inhibitors, which have shown effective in increasing erectile function [4]. Gruenwald et al. [5] and Morganroth et al. [6] conducted studies to investigate the effects of sildenafil and other related drugs, proving their advantages while also taking safety into account. Furthermore, treatment for ED and

other sexual dysfunctions must be individualized to each individual patient, taking into consideration underlying problems and preferences [7]. Despite advancements in therapy, Dunn et al. [8] highlight the critical necessity for comprehensive care that involves both medical and psychosocial assistance.

In southern Rajasthan, a primarily tribal, the connection between dermatological health and sexual function is very important. Dermatological diseases, which are frequently aggravated by socio-economic reasons, can considerably impair quality of life, including sexual health. The purpose of this study is to investigate the association between dermatological health and sexual function in males and females in this unique community, with the goal of giving insights that may be used to influence more effective and culturally appropriate healthcare interventions.

**Aim**

To examine the relationship between dermatological health and sexual function in males and females in southern Rajasthan, particularly within the tribal population.

**Objectives:**

1. To assess the impact of dermatological conditions on sexual quality of life (SQOL) in males and females.
2. To analyze the correlation between dermatological health indices and sexual function scores in the study population.

**Materials and Methods****Study Design and Area:**

**Design:** Descriptive cross-sectional design.

**Area:** Dermatological OPD in a tertiary care facility in tribal districts of Rajasthan.

**Duration:** March 1, 2023, to May 31, 2023 (3 months).

**Sample Size:** 105 patients.

**Study Participants:****Inclusion criteria:**

1. Informed consent.
2. Age 18-50 years.
3. Married or in a stable heterosexual relationship with active sexual life.
4. Confirmed diagnosis of chronic skin conditions like eczema, psoriasis, or acne.

**Exclusion criteria:**

1. Intellectual disabilities or diagnosed psychiatric co-morbidities.
2. Diagnosed with STDs (self or partner).
3. Refusal to give consent.

**Sampling Method:**

**Recruitment:** Convenience sampling of eligible patients attending dermatological OPD.

**Data Collection:** Standardized questionnaires (sociodemographic data, dermatology characteristics, Dermatology Life Quality Index(DLQI)).

**Procedure of Data Collection:**

**Consent:** Explained study aims in local language and obtained written/verbal consent.

**Questionnaire:** Structured anonymous questionnaire for information gathering while maintaining confidentiality.

**Tools and materials:**

1. **Consent Form:** Informed Consent was obtained from all patients/caregivers before entering into study by administering the consent form in Hindi language.
2. **Questionnaire:** A pre-designed and pre-tested structured questionnaires provided to subjects for obtain information about using standardized questionnaires, including sociodemographic data, psychosexual disorders screening questionnaires (Female Sexual Function Index (FSFI), IIEF), sexual quality of life questionnaires for males and females, Dermatology characteristics of Participants, Dermatology Life Quality Index (DLQI).
3. **Dermatology Life Quality Index (DLQI):**To assess the impact of skin conditions on the quality of life of patients.
4. **Severity of skin condition:** Psoriasis area and severity index (PASI), Urticaria: UAS-7 Band: (Urticaria activity score), vitiligo area and severity index (VASI), Eczema area and severity index (EASI), Severity of scalp hair loss (alopecia areata) melisma area and severity index (MASI), Scale for severity of Lichen planus, dermatophytosis severity score for Tinea.

**Statistical Analysis:** Data entered in Microsoft excel and data analysis will be done on statistical software and appropriate statistical test will be used.

**Observation****Table 1: Gender-wise distribution of patients**

Gender	Number
Male	56
Female	49
Total	105

In our study, there is a slightly higher number of male patients (56) compared to female patients (49). This indicates a relatively balanced gender distribution among the patients, with males comprising a slightly larger proportion.

**Table 2: Sexual Quality of Life Assessment for Males**

SQOL (Sexual Quality of Life)	Male
Very good	6
Good	10
Fair	19
Poor	16
Very poor	5
<b>Total</b>	<b>56</b>

Our findings show that the majority of participants reported a 'Fair' (19) or 'bad' (16) SQOL, with fewer describing it as 'Good' (10), 'Very good' (6), or 'Very bad' (5). This reflects a worse sexual quality of life within the group.

**Table 3: Analysis of Erectile Dysfunction (ED) Severity Levels in Males using International Index of Erectile Dysfunction (IIEF) Scores**

IIEF	Male
Mild to moderate ED	4
Mild ED	10
No ED	42
<b>Total</b>	<b>56</b>

Our study examines the severity of erectile dysfunction (ED) in 56 guys using International Index of Erectile Dysfunction (IIEF) scores. The majority (42) reported no ED, with a smaller minority reporting mild (10) or mild to moderate ED (4). This suggests that most individuals did not have substantial erectile dysfunction.

**Table 4: Sexual Quality of Life Assessment for Females**

SQOL (Sexual Quality of Life)	Female
Good	9
Average	21
Poor	19
<b>Total</b>	<b>49</b>

Our study examines the distribution of sexual quality of life (SQOL) among 49 females. The majority of individuals assessed their SQOL as 'average' (21) or 'poor' (19), with fewer rating it as 'good' (9). This shows that female participants had a worse overall sexual quality of life.

**Table 5: Analysis of Female Sexual Dysfunction (FSD) Severity Levels in Females using FSFI (Female Sexual Function Index) Scores**

FSFI (Female Sexual Function Index)	Female
Moderate	1
Mild to moderate	11
Mild	8
No FSD	29
<b>Total</b>	<b>49</b>

Our study assesses Female Sexual Dysfunction (FSD) severity among 49 females using FSFI scores. The majority (29) had no FSD, while a smaller portion experienced mild (8), mild to moderate (11), or moderate (1) dysfunction, indicating that most participants did not face significant sexual dysfunction.

**Table 6: Relationship Analysis of Various Factors on Male Dermatological Health, Sexual Quality of Life and IIEF**

	SES-Male	Duration of Skin Disease (Male)	Genital Involvement (Male)	Level of Severity of skin disease(male)	DLQI Effects on Patients (male)	IIEF (male)	SQOL (male)
Chi-Square	21.429	39.286	16.071	30.714	13.857	43.018	24.96
Asymp. Sig.	0.000	0.000	0.000	0.000	0.003	0.000	0.000

The table presents a chi-square analysis of the relationship between various factors and male dermatological health, sexual quality of life (SQOL), and erectile function (IIEF). Significant associations

were found across all factors, with p-values (Asymp. Sig.) Less than 0.05, indicating strong correlations between these variables and the outcomes studied.

**Table 7: Relationship Analysis of Various Factors on Female Dermatological Health, Sexual Quality of Life and FSFI**

	SES-female	Duration of Skin Disease(female)	Systematic Involvement (female)	Genital Involvement(fe male)	Level of Severity of skin disease (fe-male)	DLQI Effects on Patients (female)	FSFI Female	SQOL females
Chi-Square	34.51	31.2	45.08	31.04	24.06	15.25	33.77	5.915
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.052

The table shows a chi-square analysis of the relationship between various factors and female dermatological health, sexual quality of life (SQOL), and sexual function (FSFI). Significant associations were found for most factors, with p-values (Asymp.

Sig.) Less than 0.05, except for SQOL, where the association was not statistically significant ( $p = 0.052$ ). This indicates that most factors are strongly correlated with the outcomes studied, except for SQOL.

**Table 8: Correlation between SQOL (Male) with Dermatological life Quality Index (Male)**

SQOL (Male) and dermatological life quality index (male)	
Pearson correlation coefficient (r)	0.5196
P-value	0.0000406
Covariance	0.5623

Study indicates a strong positive correlation ( $r = 0.5196$ ,  $p < 0.001$ ) between SQOL and DLQI in males.

**Table 9: Correlation between (Sexual Quality of Life)SQOL Male with IIEF**

SQOL Male and IIEF	
Pearson correlation coefficient (r)	0.03908
P-value	0.7749
Covariance	0.03182

Study shows a weak and non-significant correlation ( $r = 0.03908$ ,  $p = 0.7749$ ) between SQOL and IIEF in males.

**Table10: Correlation between (Sexual Quality of Life)SQOL female with dermatological life quality index female**

SQOL (female) and dermatological life quality index (female)	
Pearson correlation coefficient (r)	0.3977
P-value	0.004659
Covariance	0.2636

Our study indicates a moderate positive correlation ( $r = 0.3977$ ,  $p < 0.005$ ) between SQOL and DLQI in females.

**Table11: Correlation between levels of (Sexual Quality of Life)SQOL female of male with FSFI**

SQOL female and FSFI	
Pearson correlation coefficient (r)	<b>0.7894</b>
P-value	0.00
Covariance	0.4962

The table shows a strong positive correlation ( $r = 0.7894$ ,  $p < 0.001$ ) between SQOL in females and FSFI scores.

### Discussion

The study highlights significant correlations between dermatological health and sexual quality of life (SQOL) in both males and females, with moderate to strong associations observed. In males, better dermatological health is positively linked to improve SQOL, though erectile function showed a weak relationship. For females, moderate correlations were found between SQOL and dermatological life quality index (DLQI), with a strong link between sexual function and SQOL. Notably, this study, conducted in the southern part of Rajasthan—where the population is predominantly tribal—demonstrates that dermatological conditions have a profound impact on sexual well-being in this unique demographic. These findings underscore the need for culturally tailored health interventions that address both dermatological and sexual health,

considering the specific needs and health disparities within this regional and tribal context.

### Conclusion

The study underscores a significant relationship between dermatological health and sexual quality of life in both males and females in southern Rajasthan, particularly within the tribal population. The findings highlight the need for comprehensive healthcare approaches that integrate dermatological and sexual health, addressing the specific needs of this underserved community.

### Recommendation

It is recommended that healthcare providers in southern Rajasthan, especially those serving tribal populations, adopt an integrated approach to treating dermatological conditions, with a focus on improving sexual quality of life. Culturally sensitive health education and targeted interventions should be developed to address the unique challenges faced by this demographic, ensuring a holistic approach to their overall well-being.

**Limitation**

1. The study's findings are region-specific, focusing only on the southern part of Rajasthan, which may limit the generalizability of the results to other populations.
2. The study's cross-sectional design prevents the establishment of causality between dermatological health and sexual quality of life.
3. The predominantly tribal population may have unique cultural and health-related factors that were not fully explored, potentially influencing the outcomes.

**Ethical Approval**

The study was approved by the Institutional Ethics Committee, Rabindra Nath Medical College and attached hospital, Udaipur (Rajasthan).

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