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Health-Related Quality of Life Among Young Females with Hirsutism: A Cross-Sectional study using the WHOQOL-BREF

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ABSTRACT: Hirsutism, characterised by excessive androgen-dependent terminal hair growth, is not life-threatening but can substantially affect body image, self-esteem and social functioning in young women, making its impact on quality of life (QOL) an important area of nursing research. Objective: To assess the quality of life of young females with hirsutism using the WHOQOL-BREF scale. Methods: A descriptive cross-sectional study was conducted among 100 young females (18–24 years) with hirsutism at a college in Thrissur, Kerala, selected by convenience sampling. Data were collected using a structured demographic/clinical proforma and the WHOQOL-BREF instrument, which measures QOL across physical, psychological, social and environmental domains. Data were summarised using frequencies and percentages.

Results: Most participants were 21 years old (30%); 63% had normal BMI and 37% were overweight. Menstrual irregularity was reported by 54.5% and premenstrual symptoms by 52%. Overall QOL was rated neither poor nor good by 43% and poor by 36%; health satisfaction was neutral in 41% and poor in 38%. Across domains, participants reported low-to-moderate functioning, with pronounced dissatisfaction in sleep, daily activity, work capacity, self-image, and personal relationships; 66% reported negative feelings (anxiety, low mood, despair) "quite often" or more. Conclusion: Hirsutism exerts a substantial negative effect on QOL among young females, particularly in the psychological and social domains, underscoring the need for holistic, psychosocially oriented management rather than cosmetic treatment alone.

INTRODUCTION

Hirsutism refers to excess terminal hair growth in women in a male-pattern distribution over the face, chest, abdomen, back and thighs, usually reflecting increased androgen production, heightened follicular androgen sensitivity, or both.[1] It affects a substantial proportion of women of reproductive age and is commonly linked to polycystic ovary syndrome (PCOS), idiopathic

hyperandrogenism, non-classic congenital adrenal hyperplasia and other androgen-excess states.[2]

Although often viewed as a cosmetic or dermatological concern, hirsutism's impact extends well beyond appearance. Excess hair can challenge socially constructed notions of femininity, provoking embarrassment, low self-esteem, social withdrawal and psychological distress; affected women frequently undertake repeated hair-removal practices and avoid social situations for fear of Judgement.[3] This burden may be especially pronounced in young women, for whom body image, confidence and peer acceptance are central to development.

Quality of life (QOL) is a multidimensional construct spanning physical health, psychological state, social relationships and environment.[4] Women with hirsutism report poorer QOL, lower self-esteem and greater psychological morbidity than unaffected peers,[5] and the condition frequently coexists with menstrual irregularity, acne, obesity and PCOS-related features that compound this burden.[6] Despite this, context-specific evidence on QOL among young females with hirsutism remains limited, motivating the present study, which assessed QOL using the WHOQOL-BREF and described the associated demographic and clinical profile.

2. OBJECTIVE

- To assess the quality of life of young females with hirsutism using the WHOQOL-BREF scale.

3. MATERIALS AND METHODS

3.1 Study Design and Setting

A descriptive cross-sectional study was conducted among young females with hirsutism at a selected college in Thrissur, Kerala. A total of 100 participants aged 18–24 years meeting eligibility criteria were recruited by convenience sampling. Eligible participants resided in rural areas and provided written informed consent; those absent during data collection, pregnant or postpartum, with congenital/chronic disease, or on long-term medication (including corticosteroids) were excluded.

3.2 Instrument

A two-part structured questionnaire was used. Part I recorded demographic and clinical characteristics (age, BMI, age at menarche, menstrual regularity, premenstrual symptoms, family history of menstrual irregularity/hirsutism, comorbidities, medication use and cosmetic-treatment history). Part II was the WHOQOL-BREF, a standardised 26-item instrument (WHOQOL Group) covering physical, psychological, social and environmental domains plus two global items on overall QOL and general health, rated on a 5-point Likert scale (higher scores denote better perceived QOL).

3.3 Procedure and Ethics

Following administrative approval and informed consent, the purpose of the study and confidentiality assurances were explained before the questionnaire was administered; demographic/clinical data first, followed by the WHOQOL-BREF. Ethical approval was obtained from the institutional authority before data collection, and participant anonymity was maintained throughout. Data were analysed descriptively using frequencies and percentages.

4. RESULTS

4.1 Demographic and Clinical Characteristics

Table 1. Frequency and percentage distribution of young females according to demographic, menstrual and clinical variable (N = 100)

Variable	Category	f	%
Age in years	19–20	39	39.0
	21–23	61	61.0
BMI	Normal	63	63.0
	Overweight	37	37.0

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Age of menarche in years	9–11	63	63.0
	12–14	37	37.0
Menstrual irregularity	Yes	55	55.0
	No	45	45.0
Premenstrual signs	Yes	52	52.0
	No	48	48.0
Family history of menstrual irregularity	Yes	24	24.0
	No	76	76.0
Family history of hirsutism	Yes	22	22.0
	No	78	78.0
Comorbid conditions	Yes	8	8.0
	No	92	92.0
Regular medication	Yes	4	4.0
	No	96	96.0
Prior cosmetic treatment	Yes	46	46.0
	No	54	54.0

The findings presented in the above tables show that the majority of the 100 young females studied were aged 21–23 years (61%), had a normal BMI (63%), and had attained menarche between 9–11 years (63%). Menstrual irregularities were reported by 55% of participants, and premenstrual symptoms by 52%. Most participants had no family history of menstrual irregularities (76%) or hirsutism (78%), no comorbid conditions (92%), and were not on regular medication (96%). In terms of cosmetic treatment, slightly more than half (54%) had not undergone any prior treatment, while 46% had. Overall, these findings suggest that the study population largely consisted of healthy young females with normal BMI, though menstrual irregularities and premenstrual symptoms were fairly common.

4.2 Quality of Life of Young Females with Hirsutism

4.2.1 Overall Perception of Quality of Life

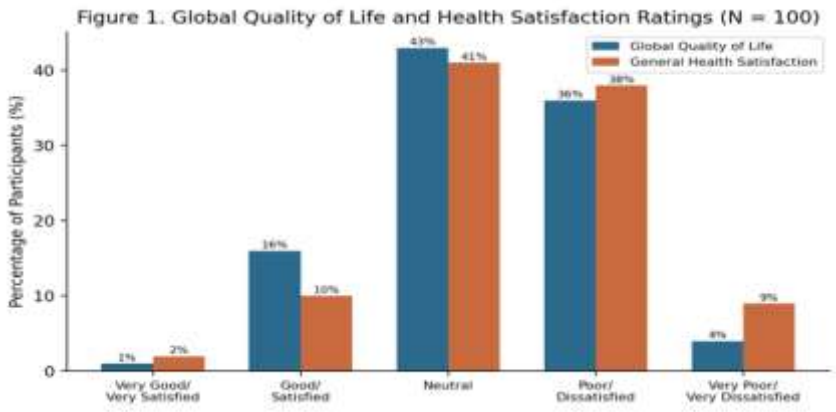

Figure 1: Overall perception of quality of life and health of young females with hirsutism

The findings indicated that overall quality of life and health satisfaction were suboptimal among young females with hirsutism. Most respondents rated their quality of life as neither poor nor good (43%) or poor (36%), while 41% were neither satisfied nor dissatisfied with their health and 38% were dissatisfied. Overall, the results suggest that hirsutism adversely affects perceived quality of life and health satisfaction.

4.2.2 Domain-wise Quality of Life Findings

Table 2. Physical domain of the WHOQOL-BREF among young females

Item	1	2	3	4	5
Pain interferes with daily activities	A little – 47%	Moderate amount – 34%	Not at all – 9%	Very much – 9%	Extreme amount – 1%
Medical treatment needed to function	Not at all – 9%	A little – 7%	Moderate amount – 37%	Very much – 5%	Extreme amount – 2%
Energy for everyday life	Not at all – 11%	A little – 43%	Moderately – 33%	Mostly – 11%	Completely – 2%
Ability to get around	Very poor – 10%	Poor – 37%	Neither poor nor good – 43%	Good – 7%	Very good – 3%
Satisfaction with sleep	Very dissatisfied – 7%	Dissatisfied – 47%	Neither satisfied nor dissatisfied – 34%	Satisfied – 10%	Very satisfied – 2%
Satisfaction with daily living activities	Very dissatisfied – 8%	Dissatisfied – 42%	Neither satisfied nor dissatisfied – 35%	Satisfied – 14%	Very satisfied – 1%
Satisfaction with work capacity	Very dissatisfied – 6%	Dissatisfied – 40%	Neither satisfied nor dissatisfied – 40%	Satisfied – 11%	Very satisfied – 3%

Young women with hirsutism showed mild-to-moderate physical health impairment. Most reported that pain interfered with tasks "a little" to "moderately" (47%/34%) and needed some medical treatment (47% "a little," 37% "moderate"). Energy levels were generally low (43% "a little"), and mobility was rated "poor" to "neutral" (37%/43%). Satisfaction was notably low across sleep (47% dissatisfied), daily living activities (42% dissatisfied), and work capacity (40% dissatisfied). Overall, physical functioning and related satisfaction were consistently reduced but not severely impaired.

Table 3. Psychological domain of the WHOQOL-BREF among young females

Item	1	2	3	4	5
Enjoyment of life	Not at all – 11%	A little – 44%	Moderate amount – 38%	Very much – 6%	Extreme amount – 1%
Life feels meaningful	Not at all – 5%	A little – 49%	Moderate amount – 40%	Very much – 5%	Extreme amount – 1%
Ability to concentrate	Not at all – 13%	A little – 45%	Moderate amount –	Very much –	Extreme

			36%	5%	amount – 1%
Ability to accept bodily appearance	Not at all – 17%	A little – 54 %	Moderate amount – 18%	Very much – 8%	Extreme amount – 3%
Self-satisfaction	Very dissatisfied – 6%	Dissatisfied – 40%	Neither satisfied nor dissatisfied – 41%	Satisfied – 11%	Very satisfied – 2%
Frequency of negative feelings	Never – 5%	Seldom – 20%	Quite often – 25%	Very often – 41%	Always – 9%

The psychological domain findings reveal a consistent pattern of impaired emotional well-being among respondents. Enjoyment of life (44% "a little") and sense of meaning in life (49% "a little") were both limited for the majority, while concentration was reduced in a considerable proportion (45% "a little," 13% "not at all"). Body acceptance was particularly poor, with 54% accepting their appearance only to a little extent and 17% not at all, and self-satisfaction followed a similar trend (40% "dissatisfied," 41% neutral). Most notably, 41% of respondents experienced negative feelings such as sadness, anxiety, and despair "very often," and 25% "quite often," reflecting a substantial psychological burden. Collectively, these findings indicate that hirsutism has a marked negative impact on the psychological domain of quality of life, affecting self-image, emotional stability, and overall mental well-being, and underscore the need for psychosocial support alongside clinical management.

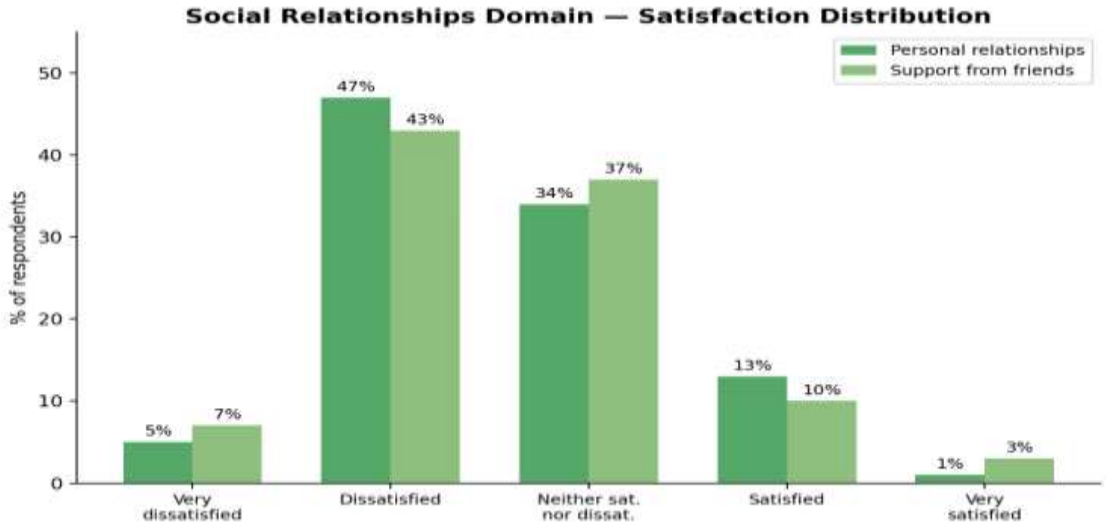

Figure 2. Social relationship domain of the WHOQOL-BREF among young females

The social relationships domain revealed poor quality of life among young females with hirsutism. Nearly half of the participants were dissatisfied with their personal relationships (47%) and support from friends (43%), while only a small proportion reported being satisfied, indicating that hirsutism adversely affects interpersonal relationships and perceived social support.

As all participants were unmarried, the item related to satisfaction with sexual life was considered not applicable.

Table 4. Environmental domain of the WHOQOL-BREF among young females

Item	1	2	3	4	5
Perceived level of safety in daily life	Not at all – 6%	A little – 47%	Moderate amount – 42%	Very much – 4%	Extreme amount – 1%
Perception of healthiness of	Not at all – 9%	A little – 44%	Moderate	Very much –	Extreme

physical environment			amount – 39%	7%	amount – 1%
Availability of information for day-to-day life	Not at all – 6%	A little – 44%	Moderate amount – 42%	Mostly – 7%	Completely – 1%
Opportunity for leisure activities	Not at all – 10%	A little – 41%	Moderate amount – 41%	Mostly – 6%	Completely – 2%
Satisfaction with access to health services	Very dissatisfied – 6%	Dissatisfied – 41%	Neither satisfied nor dissatisfied – 37%	Satisfied – 14%	Very satisfied – 2%

Findings indicated moderate limitations in environmental well-being among young females with hirsutism. Most participants reported feeling only slightly or moderately safe, perceived their physical environment as only moderately healthy, had limited access to day-to-day information, and experienced restricted opportunities for leisure activities. In addition, many were dissatisfied with access to health services. Financial resources, living conditions, and transport were not considered relevant because the participants were students living with their parents or in hostels. Overall, the findings suggest the need to improve access to health information, healthcare services, and supportive environments to enhance quality of life.

4.3 Summary of WHOQOL-BREF Domain Scores

Table 4: Overall summary of WHOQOL-BREF domain scores among young females

Domain	Mean score	Interpretation
Physical health	45.75	Moderate impairment
Psychological	36.75	Poor QoL
Social relationships	18.00	Most affected
Environmental	38.25	Poor QoL

Quality of life was impaired across all four domains, with the social relationship domain scoring lowest (18.00), the most affected area, followed by the psychological (36.75) and environmental (38.25) domains, both indicating poor QoL. The physical health domain scored highest (45.75), reflecting only moderate impairment. Overall, hirsutism affected social and psychological well-being most severely, while physical health was comparatively less impacted.

4.4 Association Between Clinical Characteristics and Domains of Quality of Life

Although this descriptive study did not include inferential statistical testing, consistent patterns emerged across variables. Menstrual irregularity (55%) and premenstrual symptoms (52%) coincided with the lowest domain scores, psychological (36.75) and social relationships (18.00), suggesting hormonal and reproductive manifestations of hirsutism may compound its psychosocial burden. Within the psychological domain, poor body-image acceptance (54% "a little" or worse) paralleled a high frequency of negative affect (66% "quite often" or more), supporting the view that visible hirsutism undermines self-perception and precipitates emotional distress. The social domain's low score, driven by dissatisfaction with personal relationships (47%) and friend support (43%), aligns with reduced psychological self-satisfaction, indicating a link between internalised distress and social withdrawal. Notably, prior cosmetic treatment (46%) did not correspond with better overall QOL, suggesting aesthetic management alone is insufficient. By contrast, the physical domain scored highest (45.75), indicating the QOL burden is weighted toward psychosocial rather than physical impairment.

5. DISCUSSION

The present study revealed that hirsutism significantly impairs the quality of life of young females, with the greatest impact observed in the social relationship and psychological domains of the WHOQOL-BREF. Most participants perceived their quality

of life as either average or poor, reflecting the adverse influence of excessive hair growth on self-esteem, body image, emotional well-being, interpersonal relationships, and social participation. These findings suggest that hirsutism is not merely a cosmetic concern but a chronic condition with substantial psychosocial consequences that warrants holistic management.

The findings are consistent with Indian research. Kiran et al.[7] reported that hirsutism had a moderate but clinically significant negative impact on the quality of life of Indian women, with daily activities and emotional well-being being the most affected domains. Women with both hirsutism and PCOS experienced significantly poorer quality of life than those without PCOS. Similarly, Bhattacharya et al.[8] demonstrated that women with PCOS had reduced health-related quality of life, and clinical manifestations such as hirsutism, menstrual irregularities, and obesity were major contributors to impaired well-being. Furthermore, Mahey et al.[9] highlighted the importance of assessing quality of life in Indian women with PCOS by developing and validating a culturally appropriate quality-of-life instrument, emphasising that hirsutism is one of the major determinants of reduced quality of life. These findings support the present study and underscore the need for comprehensive management that integrates medical treatment with psychological counselling, lifestyle modification, and continuous nursing support to improve overall counselling, lifestyle modification, and continuous nursing support to improve overall quality of life.

6. LIMITATIONS

- Descriptive design; no inferential statistical tests performed, so associations reflect observed patterns, not confirmed relationships
- Convenience sampling from a single college limits generalizability
- Self-reported data: Both clinical/demographic information and WHOQOL-BREF responses relied on self-report, introducing potential recall bias and social-desirability bias, particularly for sensitive items relating to body image and relationships.

7. CONCLUSION

The present study concludes that hirsutism significantly impairs the quality of life of young females, with the greatest impact on psychological and social well-being, followed by environmental and physical health. The findings emphasize that hirsutism is not merely a cosmetic concern but a condition with considerable psychosocial consequences. Therefore, a holistic approach incorporating early diagnosis, appropriate medical treatment, psychological counselling, lifestyle modification, and continuous nursing support is essential to improve the overall quality of life of affected young women.

Declarations

Informed Consent: Written informed consent was obtained from all participants before their enrolment in the study. Participants were informed about the purpose of the research, and confidentiality and anonymity of the collected data were ensured.

Conflict of Interest: No conflict of interest.

Funding: No specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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