

Original Research Article

The effect of hirsutism on the quality of life of Indian women

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ABSTRACT

Background: Quality of life is an individual perception of physical, psychological and social functioning. Hirsutism is excess male pattern hair growth in females. In women, hirsutism causes significant psychological and social problems. It impacts quality of life negatively. So, this study was undertaken to determine the quality of life of women with hirsutism using dermatology life quality index (DLQI).

Methods: Hirsutism was assessed quantitatively by Ferriman-Gallwey score (F-G score) and qualitatively by self-administered questionnaires of DLQI. Other parameters such as age, occupation, co-morbidities, socio-economic status, marriage status, religion, educational status were assessed.

Results: DLQI of 100 hirsute women, 12% had no effect, 34% had small effect, moderate effect in 37%, had very large effect in 17% and no patients had extremely large affect. Daily activity had highest mean DLQI followed by symptoms and feelings. The mean DLQI score of 100 hirsute women was 6.67 ± 4.57 . Mean DLQI score of hirsute women with polycystic ovarian syndrome (PCOS) was 9.96 ± 5.62 which was greater than the patients without PCOS and it was statistically significant ($p=0.03$). DLQI score was not affected by severity of hirsutism, age, occupation, socio-economic status, marriage status, religion and educational status.

Conclusions: Hirsutism had a moderate effect on the quality of life of Indian women. Impairment of quality of life was greater with the presence of PCOS. Daily activity of the Indian women was affected the most due to the presence of hirsutism.

Keywords: Hirsutism, Dermatology life quality index, Polycystic ovarian syndrome

INTRODUCTION

Hirsutism is defined as excessive male pattern hair growth in a female.¹ The prevalence of hirsutism is 10% in women of child bearing age and is influenced by genetic and racial factors.² It is cosmetically concerning for women and can affect the self-esteem significantly.³ Women with hirsutism have social phobia, insecurity about interpersonal relationships, shattered confidence and profound psychological sequelae.⁴

Quality of life is defined as “the individuals” perceptions of their position in life in the context of culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns.³ Several indices are available in the form questionnaires to measure the effect of diseases on the quality of life. One such questionnaire is Dermatology life quality index (DLQI), which is valid, simple and practical and is designed to measure the extent of disability caused by various skin diseases.⁴

There are many studies on hirsutism in India but only few studies on the impact of hirsutism on quality of life of Indian women. So, in this study we assessed the quality of Indian women with hirsutism.

METHODS

A cross sectional study was conducted on patients presenting with hirsutism aged 18 years and above to a tertiary hospital in India from June to July 2017. Patients were informed about the objectives of the study and informed consent was taken.

Ferriman and Gallwey score (F-G score) was used as a visual method of evaluating and quantifying hirsutism in women. Nine androgenic sensitive areas (upper lip, chin, chest, upper back, lower back, upper abdomen, lower abdomen, upper arms, thigh) were taken into consideration. Scoring ranged from a minimum of 0 to a maximum of 36. 8-10= mild, 11-14= moderate and scores ≥ 15 were considered severe hirsutism.¹

Pregnant and lactating women, women diagnosed with hypertrichosis due to local diseases and systemic illnesses, women on medications which are known to cause excess hair growth were excluded from the study.

Demographic characteristics such as age, marital status, religion, duration of hirsutism, family history, comorbidities were recorded and also variables like education, occupation & family income per month were recorded for assessment of socioeconomic status by modified Kuppaswamy's scale.⁵

Dermatology life quality index (DLQI) questionnaire was used in the study, to measure how much the patient's skin problem has affected her life over last week. The DLQI is calculated by summing the score of each question resulting in a maximum of 30 and minimum of 0. The higher the score, more the quality of life is impaired.⁶ The score of 0-1, 2-5, 6-10, 11- 20 and 21-30 means no affect, small, moderate, very large and extremely large affect respectively. The DLQI was also analyzed under 6 headings- symptoms and feelings, daily activities, leisure, work and school, personal relationships and treatment.¹

Data were coded manually and analysis was conducted through SPSS program, version 21. The results were presented in tables and figures. Descriptive and analytical statistical analysis was done. Quantitative data; mean \pm Standard Deviation (SD) was used. Qualitative data: number and percentage were used. Chi square (χ^2) test was used for comparison of qualitative data. The level of significance was taken at $p < 0.05$.

RESULTS

A total of 100 hirsute women were included in the study with a mean age of 24.41 years. 65 hirsute women were unmarried in our study. 62% were students, 23% were

housewives and 15% were working women. In our study, 46% were Hindus, 50% were Muslims and 4% were Christians. Education status of women in our study, 25% had completed graduation, 74% had studied till primary and 1% was illiterate. In our study, 18% belonged to upper class, 50% belonged to the upper middle class and 16% each belonged to the lower middle and upper lower class. 23% had polycystic ovarian syndrome (PCOS) and 7% were hypothyroid.

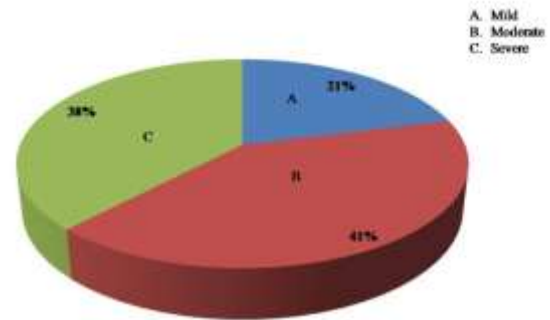


Figure 1: Grades of hirsutism according to Ferriman - Gallwey score (F-G score).

Of the 100 hirsute women, 21% had mild hirsutism (8-10), 41% had moderate hirsutism and 38% had severe hirsutism (Figure 1). In women aged 18-24 years, 24.2% had mild, 48.5% had moderate and 27.3% had severe hirsutism. While in women aged ≥ 25 years, 14.7% had mild, 26.5% had moderate and 58.8% had severe hirsutism. So, it was observed that females aged ≥ 25 years had severe hirsutism more than those aged < 25 years. This was statistically significant ($p=0.009$).

Among the 23 females suffering from PCOS, 17.4% had mild, 30.4% had moderate and 52.2% had severe hirsutism. While in other 77 females not affected by PCOS, 22% had mild, 44.2% had moderate and 33.8% had severe hirsutism. So, more number of patients with PCOS had severe hirsutism compared to non PCOS patients, But it was not statistically significant ($p=0.157$).

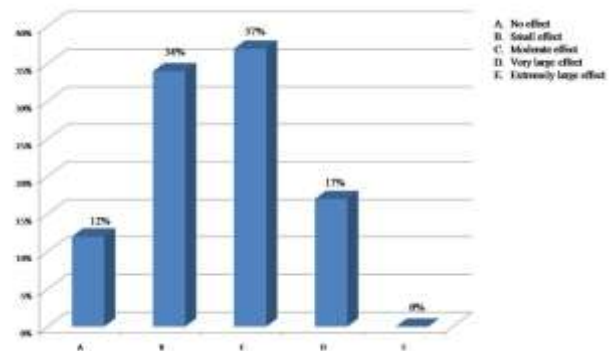


Figure 2: Frequency in meaning of DLQI score in studied females.

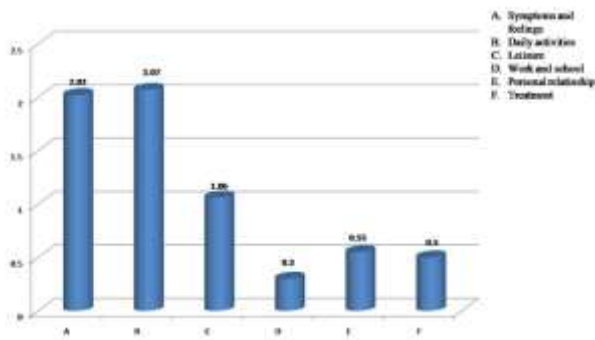


Figure 3: DLQI section scores in women with hirsutism.

DLQI of 100 hirsute women, 12% had no effect, 34% had small effect, moderate effect in 37%, had very large effect in 17% and no patients were extremely affected (Figure 2). Daily activity had highest mean DLQI followed by symptoms and feelings (Figure 3).

In our study, mean DLQI score of 100 hirsute women was 6.67±4.57. So, the patient’s life was affected moderately on an average due to the presence of hirsutism. In mild hirsutism mean DLQI score was

4.52±4.65, moderate hirsutism mean DLQI score 6.68±4.55 and severe hirsutism mean DLQI score was 7.84±4.21. Mean DLQI score of severe hirsutism was higher than the mild hirsutism but it was not statistically significant (p value=0.363) (Table 1). Women aged ≥25 years had a greater mean DLQI score of 8.47±5.28 compared to those aged 18-24 years which was 5.74±3.88. However, it was not statistically significant (p=0.124). Married women in our study had a higher mean DLQI score of 8.71±5.42 compared to the unmarried women in whom it was 5.57±3.63 but it was not statistically significant (5.61±3.7, p=0.05) (Table 2). Mean DLQI score of student was 5.51±3.7, housewives was 8.13±6.38 and working women was 8.8±3.23. In our study, mean DLQI score of working women was higher when compared to students but there was no statistical significance (p=0.09). Mean DLQI score of illiterate was 13, primary education was 6.31±4.64 and graduate was 7.48±4.22. Mean DLQI score of upper class was 5±4.09, middle class was 7.27±4.3 and lower was 6.06±5.66. Difference between the parameters of educational status and socio-economic status was not statistically significant (p≥0.05). Mean DLQI score of hirsute women with PCOS was 9.96±5.62 which was greater than the patients without PCOS that was 5.69±3.71 and it was statistically significant (p=0.03) (Table 3).

Table 1: Mean±SD of DLQI score among studied groups according to severity of hirsutism.

Variables	Mild hirsutism	Moderate hirsutism	Severe hirsutism	P value
DLQI				
Total score (Mean±SD)	4.52±4.65	6.68±4.55	7.84±4.21	0.363

Table 2: Mean±SD of DLQI score among studied females according to marital status.

Variables	Married	Unmarried	P value
DLQI			
Total score (Mean±SD)	8.71±5.42	5.57±3.63	0.05

Table 3: Mean±SD of DLQI score among studied females according to PCOS status.

Variable	PCOS patients	Non-PCOS patients	P value
DLQI			
Total score (Mean±SD)	9.96±5.62	5.69±3.71	0.030

DISCUSSION

Hirsutism is excess of terminal hair in androgen dependent areas in a female over face, chest, abdomen, upper thigh and areola.⁷ 5-10% of women in reproductive age are affected by hirsutism.⁸ In our study the mean age was 24.41 years which was slightly less compared to a study by Baig et al in which it was 26.12±5.83 years.⁴ Most of the patients in our study were students (62%). 65% of patients in our study were unmarried which was higher than a study by Baig et al⁴ in which it was 51.5%.

Hirsutism is much more than just a cosmetic problem. It may be associated with significant underlying diseases,

often linked with decreased quality of life, impaired self-image of the patient feminine identity.⁹ In our study, 38% had severe hirsutism which was only 8% in a study conducted by Hodeeb et al.³ 23% of the cases in our study were associated with PCOS and 7% had hypothyroidism which was 38% and 8% respectively in a study by Sharma et al⁸. Mean DLQI of our study was 6.67±4.57 which was lesser than mean scores of the study by Baig et al and Loo et al where it was 17.9±5.71 and 12.8±8.5 respectively.^{4,10} So, on the average patient’s life in our study was moderately affected.

In the present study, mean DLQI scores were highest for question on daily activity (2.07) followed closely by

question on symptom and feelings (2.02). Both, daily activity and symptom and feelings were affected a lot. In a study by Rahnama et al, there was higher disruption of symptom and feelings followed by daily activity and also the mean DLQI score for symptom and feelings (2.65) and daily activity (2.45) was also higher than the present study.²

Quality of life of the patients in our study was not affected by the marital status, religious background, education and socio-economic status.

Our study also showed that quality of life of hirsute women with PCOS was poorer when compared to women without PCOS. According to Jones et al, overall PCOS has a significant negative impact on women's HRQoL (Health Related Quality of Life).¹¹

Hence, we can conclude that hirsutism had a moderate effect on the quality of life of Indian women. Impairment of quality of life was greater with the presence of PCOS. Daily activity of the Indian women was affected the most due to the presence of hirsutism. So, hirsutism shouldn't be treated like any other disease and patients suffering from this infirmity shall be treated with courtesy and civility. Since, India is a diverse country with multiple ethnic and cultural groups residing in different regions of the country. So, multicentric study for the evaluation of quality of life of women with hirsutism from various parts of the country is required.

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REFERENCES

1. Rahnama Z, Sohbaty S, Safizadeh H. Effect of hirsutism on quality of life: a study in Iranian women. J Pakistan Assoc Dermatol. 2013;23(1):28-33.
2. Azziz R, Carmina E, Sawaya ME. Idiopathic hirsutism. Endocr Rev. 2000;21(4):347-62.
3. Hodeeb YM, Dinary AMA, Hassan HM, Samy DA. Hirsutism and Health Related Quality of Life. Mod Chem Appl. 2015;2:170.
4. Baig T, Aman S, Nadeem M, Kazmi AH. Quality of life in patients of hirsutism. J Pak Assoc Dermatol. 2014;24(3):217-3.
5. Singh T, Sharma S, Nagesh S. Socio-economic status scales updated for 2017. Int J Res Med Sci. 2017;5:3264-7.
6. Finlay AY, Khan GK. Dermatology Life Quality Index (DLQI) - a simple practical measure for routine clinical use. Clin Exp Dermatol. 1994;19(2):210-6.
7. Chabra S, Gautam RK, Kulushreshtha B, Prasad A, Sharma N. Hirsutism: a Clinico-investigative study. Int J Trichol. 2012;4:246-50.
8. Sharma NL, Mahajan VK, Jindal R, Gupta M, Lath A. Hirsutism: Clinico-investigative profile of 50 indian patient. Indian J Dermatol. 2008;53:111-4.
9. Pate C. The story plot of living the embarrassment of hirsutism. Arch Psychiatr Nurs. 2013;27(3):156-7.
10. Loo WJ, Lannigan SW. Laser treatment improves quality of life of hirsute females. Clin Exp Dermatol. 2006;31:753-6.
11. Jones GL, Hall JM, Balen AH, Ledger WL. Health related quality of life measurement in women with polycystic ovary syndrome: a systematic review. Hum Reprod Update. 2008;14(1):15-25.

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