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Quality of Life in Women with Hirsutism in Erbil City

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Abstract

Background and objectives: Hirsutism being a psychological, social and not merely medical problem may have a negative impact on the quality of life of affected women. This study was done to determine the quality of life of women with hirsutism.

Methods: A cross sectional study conducted at governmental and private dermatological canters in Erbil city/Iraq for the period from April 2019 to January 2020. A convenience sample of 250 hirsute women selected. Hirsutism was assessed by quantitative method using Ferriman-Gallwey score on scale (0-36). Quality of life evaluated using a modified dermatology life quality index questionnaire by summing the scores (0-3) for 10 questions, negative effects related to higher scores.

Results: The mean age of recruited women was 28.2±9.8 and their mean score of dermatology life quality index was 13.29±3.05. Those with mild hirsutism were 25.6%, moderate 41.2% and sever ones were 33.2%. The quality of life of 80% of hirsute women were moderately affected (score 11-20), and was significantly associated with the severity of hirsutism. Feeling embarrassed and ashamed, restriction of outdoor activities and the financial burden of treatment (mean scores 2.04, 1.46, 1.79) were the most affected issues of life of hirsute women.

Conclusions: Quality of life of more than two thirds of hirsute women is moderately affected. This impact is correlated to the severity of hirsutism.

Key words: Hirsutism: Dermatology life quality index, Ferriman-Gallwey score, Erbil.

Introduction

Hirsutism is defined as excessive male pattern hair growth in female.[1] The prevalence of hirsutism is 10% in women of child bearing age.[2] Hirsutism is a sign of increased androgen activities in the hair follicles, either as a result of increased circulating level of androgens or increased sensitivity of hair follicles to normal circulating level of androgens.[3] Severity of hirsutism can be assessed by Ferriman Gallowey scores.[4] Whether hirsutism is mostly approached to as a manifestation of several medical problems with different underling etiologies, moreover it is cosmetically concerning for women and can affect the self-esteem significantly.[5] Women with hirsutism have social phobia, insecurity about interpersonal relationships, shattered confidence, and profound psychological sequlae.[6] higher depression scores, greater body dissatisfaction and lower self-esteem.[7] Researchers have shown that excessive growth of hair in women was the second most serious factor after infertility that negatively influenced their quality of life (QoL).[7] Meanwhile Quality of life is defined as the individual's perceptions of their goals position in life in the context of culture and value system in which they live

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and in relation to their goals, expectations, standards, and concerns.[8-9] Quality of life is the product of interplay among social, health, economic and environmental condition which affect human and social development. Moreover, QoL provides a global evaluation of one's life that can be used to determine the subjective experience of living with condition, affect planning for the future, and potentially affect acceptance and adherence to treatment.[10] Several indices are available to evaluate this health wellbeing parameter (QoL) in relation to different medical, psychological and social problems, among these is dermatology life quality index questionnaire.[11] The aim of this study is to determine the impact of hirsutism on quality of life of a sample of adult women living in Erbil city and to explore the extent of impairment of this parameter in relation to the severity of hirsutism.

Patients and methods

A cross sectional study was carried out in Erbil city; at Hawler dermatological center, dermatological out patient in Rizgary teaching hospital and dermatological private centers for the period from April 2019 to January 2020. A convenience sample of 250 women aged (15 -50) years presented with history of hirsutism for at least 6 months were recruited. Women with hirsutism of different underlying aetiologies were included. Only those with severe psychological or sever comorbid conditions were excluded. The data were collected through direct interview with all study participants. Primarily a structured questionnaire was prepared and completed to cover their sociodemographic data; age, residency, marital status, level of education, and occupation Anthropometric measurements were applied to calculate their weight, height and body mass index BMI (≤ 25 or > 25). Severity of hirsutism was assessed using Ferriman and Gallwey scale as a visual method of evaluating and quantifying hirsutism in women, accordingly a score of 1 to 4 is given for nine androgenic area of the body (upper lip, chin, chest, upper abdomen, lower abdomen, upper back, lower back, upper arms and thigh), while 0 score mean no male hair growth. A total score less than 8 out of overall 36 considered normal, while (8-10) mild, (11-14) moderate and (15-36) sever hirsutism[12]. The quality of life of the recruited women was evaluated utilizing Dermatology life quality index questionnaire, being slightly modified to be more convenient for our study population. The questionnaire included 10 questions covering six headings (symptoms and feelings, daily activities, leisure, work and school, personal relationships and treatment)[1]. The overall scores for every participant were calculated by summation of the scores of each questions resulting in a maximum 30 and minimum 0 scores, accordingly higher scores indicate more impairment in the quality of life of the studied sample; those with a total score of (0-10) were mildly affected, (11-20) were moderately affected, and (21-30) were severely affected. The approval of the research protocol by the scientific and ethics committee at Kurdistan Higher Council of Medical Specialties had been achieved. Participation was voluntary and all the participants were assured that their information would be confidential. Data were analysed using the Statistical Package for Social Sciences (SPSS, version 22) and presented as frequencies, percent distributions, and mean± Sd. Chi square test of association was used to compare proportions. Fisher's exact test was used when the expected count of more than 20% of the cells of the table was less than 5.

ANOVA test was used to compare more than two means. A p value of ≤ 0.05 considered statistically significant.

Results

A total of 250 hirsute women were included in the study. Their mean age ± SD was 28.20±9.8 years, ranging from (15-50 years). Table (1) shows that 59.2% of studied sample were married and 40.8% were unmarried while 36.8% were housewives or unemployment, 34.8% of cases were students and 28.4 % were employed. Majority of our samples were from urban areas 99.2% and only 0.8% were from rural area. Educational level of women in our study showed 42.8 % were of high educational levels or college graduates, 31.6 % were of secondary level, 21.1 % were of primary level and only 4.4 % were illiterate. Mean BMI was 26.73 ± 2.99, which trends towards overweight

Table (1): Sociodemographic characteristic of study sample

Demography	No.	%
Age		
< 18 yr.	43	17.2
18-35 yr.	149	59.6
> 35 yr.	58	23.2
Residency		
Rural	2	0.8
Urban	248	99.2
Marital status		
Married	148	59.2
Unmarried	102	40.8
Education		
Illiterate	11	4.4
Primary	53	21.2
Secondary	79	31.6
High education	107	42.8
Occupation		
Student	87	34.8
Employee	71	28.4
Housewife	92	36.8
BMI		
≤ 25	97	28.8
> 25	153	61.2

The severity of hirsutism of the studied women was assessed through utilizing Ferriman & Galloway scores. Accordingly; 25.60% had mild hirsutism (F-G score 8-10), 41.20% had moderate (F-G score 11-14) and 33.20% had sever hirsutism (F–G score 15-36), Figure (1).

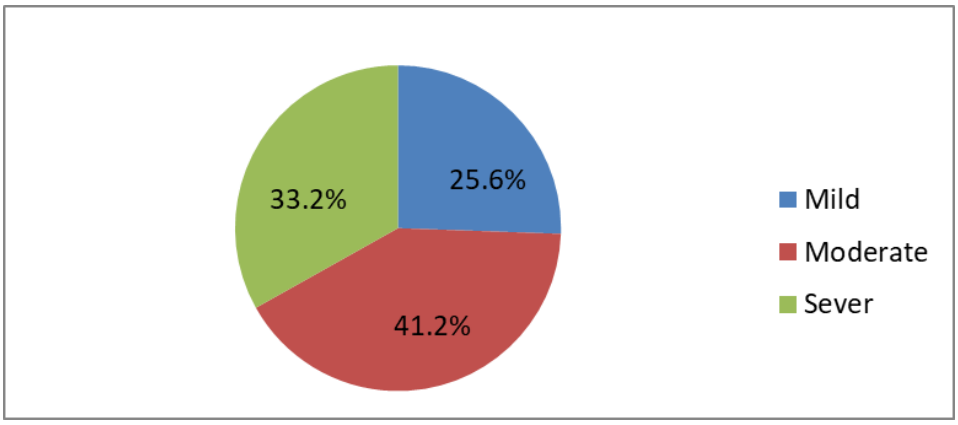

Figure (1): Distribution of the study sample by the severity of hirsutism

On the other hand, as shown in Figure (2) out of women aged less than 18 years; 37.2% had mild hirsutism, 30.2% had moderate hirsutism and 32.6% of women at this age had sever hirsutism. While women aged (18-35); 24.2 % had mild hirsutism, 47% had moderate hirsutism and 28.8% had sever hirsutism. Beside females aged (>35); 34.5% of them had moderate hirsutism and 44.8% had sever hirsutism. Overall, there was increasing in the severity of hirsutism with age, and this was statistically significant (p=0.044).

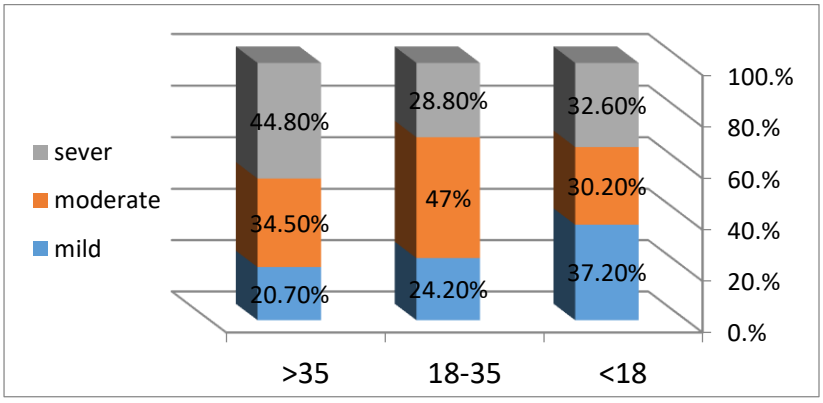

Figure (2): Distribution of severity of hirsutism by age group (p value 0.044)

The effect of hirsutism on the quality of life of women in this study as reflected by their DLQI scores reviled; 17.60% of them mildly affected (score 0-10), 80% moderately affected (score 11-20) and only 2.40% had severe effect (score 21-30) as shown in Figure (3)

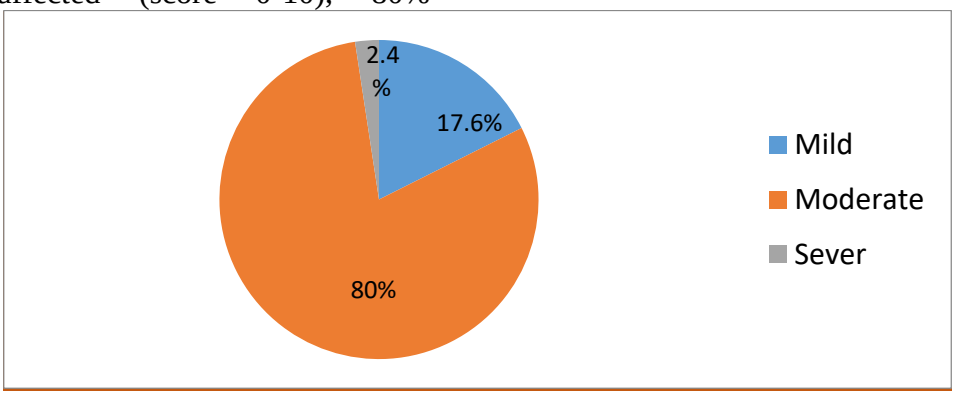

Figure (3): Effect of hirsutism on the quality of life of studied women

Figure (4) shows the average score on scale 0-3 for each of ten questions of dermatology life quality index reflecting the mostly affected aspect of their life. It revealed that the highest average score (2.04) was reported for Q1 (How embarrassed or ashamed have you been because of your hairiness?), followed by Q10 (1.79) (How much the treatment for your hairiness caused a financial problem) and Q .9 (1.7) (How much of a problem has the treatment for your hairiness caused to you by taking up time?), while Q3 (How much has your hairiness influenced the clothes you wear) and Q2 (How much your hairiness interfer with you going shopping or doing your personal affairs outside home) reported an average score of (1.65) (1.46) respectively.

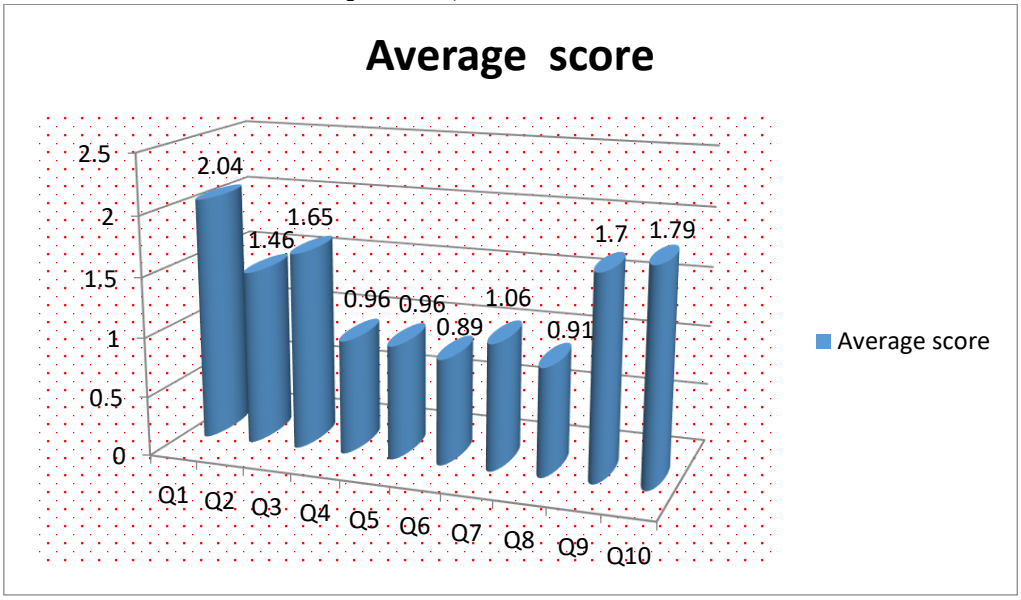

Figure (4): Average score of each question in DLQI of the whole sample

Table (2) showed that the mean DLQI score of the whole studied sample was 13.29 ± 3.05, so as on average the patient's life was moderately affected due to hirsutism. In mild hirsutism the mean DLQI score was 12.34 ± 2.57, moderate hirsutism the mean DLQI was 13.48 ± 3.34 and mean DLQI of sever hirsutism was 14.06 ± 3.24. Thus the mean scores of DLQI of women found to increase with increase in the severity of hirsutism which found to be statistically significant (p=0.004).

Table (2): Distribution of mean scores of DLQI in relation to the severity of hirsutism

Variables	No.	DLQI scores		p- value
		Mean	Standard deviation	
Mild hirsutism	64	12.34	2.57	0.004
Moderate hirsutism	103	13.48	3.34	
Sever hirsutism	83	14.06	3.24	
Total	250	13.29	3.05	

Among the socio-demographic characteristic of hirsute women that found to be significantly associated with the quality of life, marital status (p=0.001) and occupation (p=0.05). The quality of life of married women (54.4%) and housewife (30%) were most frequently moderately affected. While women aged 18-35 years were also mostly moderately affected (46.6%) yet no significant association (p=0.064) was found among age groups and quality of life. On the other hand, the impact of hirsutism on the quality of life of hirsute women seems to be escalating with the level of education, since (42.8%) of women with a higher educational levels found to be moderately affected while illiterate (4.4%), primary educational level (21.2%) and secondary educational level (31.6%), however it was statistically insignificant (p=0.448). In regard to severity of hirsutism it was found that quality of life of (30.4%), (30%) of women with moderate and severe hirsutism respectively were moderately affected, consequently a statistically significant association (p=0.014) was found among increasing severity of hirsutism and impairment of quality of life of hirsute women. Although the quality of life of (51.2%) of hirsute women with BMI >25 was moderately affected compared to (28.4%) of those with BMI <25 but statistically was not significant (p=0.217). Table (3).

Table (3): The association of different variables of hirsute women with the quality of life by DLQI scores

Variables	DLQI scores						p- value
	Mild		Moderate		Sever		
	No.	%	No.	%	No.	%	
Age							
< 18 yr.	12	4.8	31	12.4	0	0	0.064
18-35 yr.	27	10.8	119	46.6	3	1.2	
> 35 yr.	5	2	50	20	3	1.2	
Marital status							
Married	7	2.8	136	54.4	5	2	0.001
Unmarried	37	14.8	64	25.6	1	0.4	
Education							
Illiterate	2	0.8	8	3.2	1	0.4	
Primary	10	4	42	16.8	1	0.4	0.448
Secondary	14	5.6	65	26	0	0	
High education	18	7.2	85	34	4	1.6	
Occupation							
Student	22	8.8	65	26	0	0	0.05
Employee	8	3.2	61	24.4	2	0.8	
Housewife	13	5.2	75	30	4	1.6	
BMI							
≤ 25	22	8.8	71	28.4	3	1.2	0.217
> 25	23	9.2	128	51.2	3	1.2	
F & G score							
Mild	7	2.8	57	22.8	0	0	0.004
Moderate	22	8.8	76	30.4	5	2	
Sever	7	2.8	75	30	1	0.4	

Discussion

Hirsutism refers to excessive growth of terminal hair in women with characteristics and distribution as seen in males in androgen responsive area. In medical practice, it is often impossible to separate the disease from the individual`s personal and social context, especially in chronic and progressive disease.[13] Also, it is known that patients with chronic disease place a high value on their mental and social wellbeing as well as pure physical health.[14] Focusing on health related quality of life (HRQoL) as a national health standard can bridge boundaries between disciplines and between social, mental, and medical services.[15] Hirsutism affects 5%-10% of women of reproductive age. It is more than cosmetic problem. It may be linked to significant underlying diseases, often associated with decreased quality of life, impaired self-image of the patient feminine identity.[16] In our study 250 hirsute female patients were enrolled. The severity of hirsutism was assessed by Ferriman and Gallwey score while a modified questionnaire of DLQI was utilized to assess the quality of life of recruited women. Mean age in our study was 28.20±9.81 years which was slightly higher than that of a study conducted by Kiran et al[1] and that of Baig et al.[6] being 24.41 and 26.12±5.83 respectively while in other study of Sohbati et al.[12] it was 27.24±6.15 years. More than half the patients (59.2%) in our study were married, furthermore DLQI score of married women were higher than unmarried which was consistent with the study of Kiran at el.[1] yet no such difference was found in study conducted by Baig et al.[6] In our study, 33.2% of patients had sever hirsutism compared to the study of Kiran at el[1] which was 38%. Mean DLQI score of hirsute women in this study was 13.29±3.05 indicating that studied women were moderately affected this result was similar to a study carried by of Loo et al.[17] that reported mean score of 12.8±8.5 but was less than that of Baig et al.[6] study which was 17.9±5.71 and more than that of the study of Kiran et al.[1] which was 6.67±4.57. Whether the age of hirsute women correlated to higher scores of DLQI, our study revealed that women of age group (18-35) were mostly affected than other age groups, such result was also found in Baig at el.[6] study. On the other hand women with BMI of > 25 in this study reported a higher scores of DLQI than those of BMI < 25 which was also similar to the study of Baig et al.[6] and was consistent with the study of Sotuden et al[18] in which hirsutism score of overweight and obese (BMI>25 kg/m) were also higher than light weight women, such results could be expected since obesity by itself interfere with the wellbeing and self-image of female and such feeling could be exaggerated by the presence of hirsutism. In the present study average DLQI score was higher for questions related to symptoms and feelings (Q1, Q2, & Q3); Q1 (How embarrassed or ashamed have you been because of your hairiness?) reflecting the magnitude of interference of hirsutism on the self-image and self-confidence expressed by affected women. On the other hand, Q2 (How much your hairiness interfered with you going shopping or doing your personal affairs outside home) and Q3 (How much has your hairiness influenced the clothes you wear) manifested the impact of hirsutism on the daily personal relationship and performing usual outdoor activities, similar findings reached by other studies conducted by Baig et al.[6] and Kiran et al.[1] study. Meanwhile, high scores also reported for Q9 (How much of a problem has the treatment for your hairiness caused to you by taking up time?), and Q10 (How much the treatment for your hairiness caused a financial problem), both related to the financial burden of treatment of this medical and cosmetic problem in term of money and time spent in a way that could interfere with women social wellbeing and welfare. The significant statistical association detected in

our study between the severity of hirsutism and DLQI scores whether calculated as frequencies (p=0.014) or as mean ±SD (p=0.004) and subsequently found to be concordant with the results reached by a study of Hodeeb et al.[3] Hirsutism commonly affects young people at a time when they are undergoing maximum psychological, social, and physical change and they are least capable of coping with additional stress. The highly visibility of the disease severely impact Quality of life (QoL) as the social norm of femininity today includes hair free body. Hirsute patients required to be supported from physician, family and community in addition to medical treatment in order to reduce psychological morbidity. Overall, dermatologists should be alert to the following factors; sufficient time should be spent on consultation at first visit, patient should take few minutes to complete a simple questionnaire regarding their motivation and expectation of the treatment in order to promote communication between the patient and the doctor. Clinicians should answer any question the patient may have particularly regarding the improvement of disease and time taken for treatment[19]. Beside they must have empathic attitude toward this type of patients and psychological aspects of the disease should not be neglected. Further strategies should be encountered to eliminate the psychological and social impact of hirsutism by offering further health and social services to be provided by already present public and private centers.

Conclusions

Quality of life of more than two thirds of hirsute women is moderately affected. Married women within age group of 18-35 years, with BMI>25 and of higher education level are mostly affected. Severity of hirsutism correlated significantly with the mean score of DLQI reflecting more negative impact on the wellbeing of hirsute women.

Conflict of interest

The author reports no conflicts of interest.

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