

Original Research Article

“Quality Of Life In Patients Attended OPD With Acne-A Questionnaire Study”

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Abstract: Introduction: Acne vulgaris is a common skin disease that can adversely affect the quality of life of patients. Acne is a chronic disease, involving the face affecting more than 85% of the teenagers, as well as some adults. Though it is considered to be merely a cosmetic problem, it is associated with considerable psychological impairment which is comparable with certain chronic diseases like asthma, epilepsy, diabetes and arthritis. **Objective:** To assess the impact of acne on Quality of Life and acne vulgaris is a chronic disease affecting the face in adolescents and adults. **Material and Methods:** The study sample consisted of 451 consecutive patients with facial acne vulgaris. Patients who had attended the Dermatology OPD, *Medical College for Women & Hospital (MCW&H)*, Uttara, Dhaka, Bangladesh were included in the study. The study sample consisted of 451 consecutive patients with facial acne vulgaris who had attended the Dermatology OPD over a period of 6 months from January to June-2020. After obtaining the history, the acne was graded into mild, moderate and severe based on the type and number of lesions. Dermatology Life Quality Index (DLQI) and Cardiff Acne Disability Index (CADI) were administered on the patients to measure the Quality of Life. **Results:** Majority (55.65%) of the study population was between 16-20 years and the number of males was more than the number of females. Most of the patients were educated and unmarried. 62.31% of patients belonged to the urban areas & (61.20%) had an acne duration of >1 year. Severe acne was seen in 25.27% of patients and 52.10% had a moderate grade of acne. In 300 patients (66.52%) the CADI scores were >8 showing a clear impact on QOL. Based on the DLQI scores 76.93% of the patients had a moderate to extremely large impairment of QOL. **Conclusion:** Acne has an impact on Quality of Life (QOL) and evaluation of Quality of Life helps in the better management of patients with acne.

Keywords: Acne vulgaris, Quality of Life, DLQI, CADI.

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I. INTRODUCTION

Quality of life is a general term which includes a feeling of joy and satisfaction with life. Quality of life (QOL), self-confidences, and self-esteem in patients with skin diseases have not sufficiently been attended to. Acne is a chronic disease, involving the face affecting more than 85% of the teenagers, as well as some adults [1]. Though it is considered to be merely a cosmetic problem, it is associated with considerable psychological impairment which is comparable with certain chronic diseases like asthma, epilepsy, diabetes and arthritis [2, 3]. Acne patients are prone to low self-esteem, low confidence and social dysfunction which may lead to anxiety, depression, obsessive compulsiveness and sometimes suicidal ideation [4, 5]. Acne affects the functional abilities of individuals [6] and patients have higher rates of unemployment when compared to those without acne [7]. The majority of the studies on psycho social aspects have been conducted in US and Europe, but the impact of acne on Quality of

Life (QOL) is undocumented in India [8-11]. WHO defines QOL as the "individuals' perception of their position in the context of culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns [12]." Measurement of QOL is done with validated and reliable questionnaires like Dermatology Life Quality Index (DLQI), Acne Disability index (ADI), and Cardiff Acne Disability Index (CADI) [13]. Assessing quality of life can help provide patients with better service, by acknowledging their real needs and interfering with treatment decisions [14]. There are effective therapies for acne and administration of these agents can cause an improvement in quality of life and psychological health [15, 16]. Increased awareness and early intervention for the psychological and psychiatric sequelae of acne can benefit patients.

II. MATERIAL AND METHODS

This study has been conducted in the OPD of the Dept. Of Dermatology, *Medical College for Women & Hospital (MCW&H)*, Uttara, Dhaka, Bangladesh. The study sample consisted of 451 consecutive patients with facial acne vulgaris who had attended the Dermatology OPD over a period of 6 months from January to June-2020. The subjects with pre-existing psychiatry disorders were excluded. A detailed history regarding socio demographic profile, symptoms and clinical aspects was taken after obtaining consent from all the participants of the study. Acne was graded into mild, moderate and severe based on the number, type and severity of lesions [17]. Dermatology Life Quality Index (DLQI) and Cardiff Acne Disability Index (CADI) were administered on the patients to determine the impact of acne vulgaris on Health Related Quality of life (HRQOL). DLQI is a general questionnaire for evaluation of quality of life in dermatology patients and consists of 10 questions about disease symptoms, feelings, daily activities, type of clothing, social or physical activities, exercise, job or education, interpersonal relationships, marriage relationships and treatment. Its domain is from zero(without any effect on quality of life) to 30(extremely large effect on quality of life).According to the score obtained, the effect of disease on quality of life can be divided into 5 classes which are- without effect, small effect, moderate effect, very large effect and extremely large effect [18]. CADI is a questionnaire which is specific for acne and contains 5 questions-related to the last month- about feelings, interference with social life and interaction with the opposite gender, avoidance of public places, appearance of the skin and perceived severity of disease state. Each question is scored from 0-3 leading to a total score of 0-15. A higher score shows a very large impact on quality of life [19]. In our study a CADI score <8 is considered

to have a small effect on quality of life & a score>8 is considered as having a larger effect on QOL. Both the questionnaires have Persian equivalents with confirmed reliability and validity [20, 21].

III. RESULTS

The results of our study are shown in the table below which shows that majority (55.65%) of the participants belonged to the age group 16-20 years. 54.32% were males and females constituted 45.68% of the study population. Majority of the patients were educated (77.84%) and unmarried (70.51%). Most of the participants (62.31%) were from the urban areas. 276 patients (61.20%) had an acne duration of >1 year. Severe acne was seen in 25.27% of patients and 52.10% had a moderate grade of acne. In 300 patients (66.52%) the CADI scores were >8 showing a clear impact on QOL. Based on the DLQI scores 76.93% of the patients had a moderate to extremely large impairment of QOL.

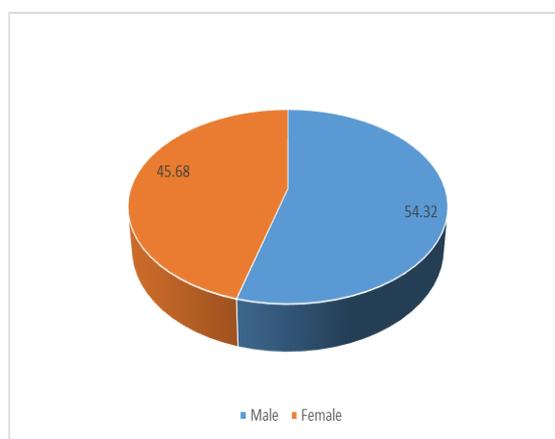


Fig-1: Sex distribution of acne patients.

Table-1: Socio Demographic profile, clinical features and quality of life measures in acne patients.

	No. (n=483)	%
Age		
11-15	35	7.76
16-20	251	55.65
21-25	104	23.05
>25	61	13.52
Sex		
Male	245	54.32
Female	206	45.68
Educational Status		
Educated	342	77.84
Uneducated	109	24.16
Socioeconomic status		
Low	61	13.52
Middle	223	49.44
High	167	37.02
Marital status		
Married	133	29.49
Unmarried	318	70.51
Region		
Rural	170	3.69
Urban	281	62.31

Duration		
<1 YR	175	38.80
>1 YR	276	61.20
CADI		
<8	151	33.48
>8	300	66.52

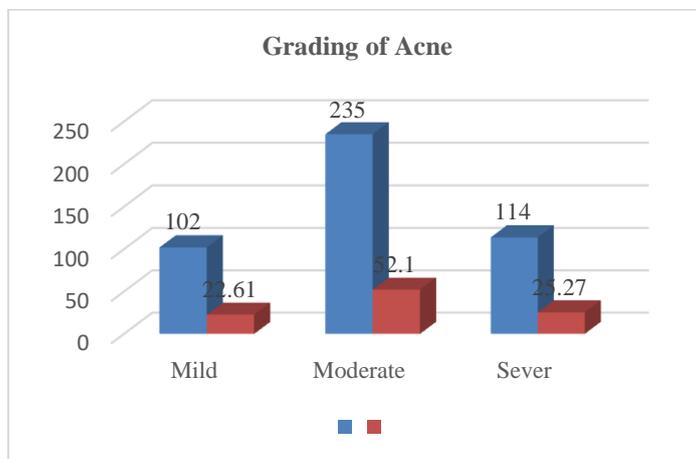


Fig-2: Grading of Acne patients.

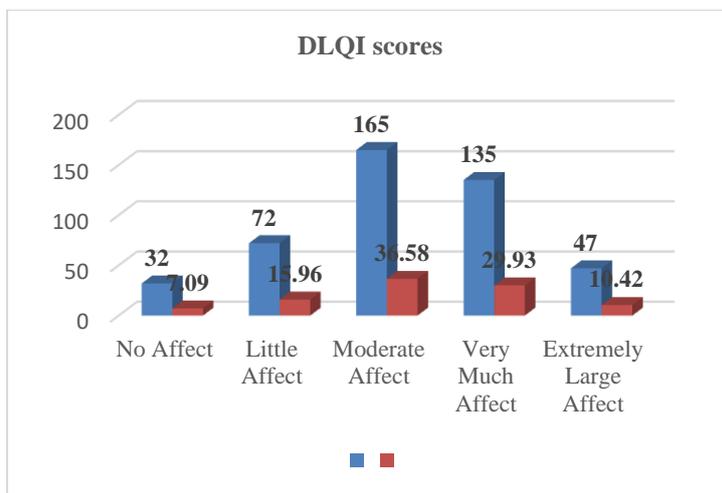


Fig-3: DLQI scores of acne patients.

IV. DISCUSSION

The results of our study revealed that majority(55.65%) of the participants belonged to the age group 16- 20 years which is similar to a study by Jancovic *et al.* which showed that acne prevalence is more at the age of 16 and 17 years [22]. According to Balakrishnan *et al.* acne is a chronic disease affecting 85% of the teenagers [1]. In our study the number of males was more than females which is similar to a Chinese study which reported that acne in adolescents was predominant in males and adult acne was common in females [23]. In a study by Kameran Hassan Ismail the majority of the study population was constituted by females, which differs from our study [24]. Our study revealed that there was a clear impact of acne on Quality of Life. It was observed that there was a large impact on QOL in 66.52% based on the CADI score.

And as per the DLQI score there was a moderate to extremely large impact on the Quality of Life in 76.93% of patients. H. Safizadeh *et al.* found that acne influenced the quality of life in 51.8% of the patients based on DLQI score [25] and Hanisha *et al.* reported that based on the specific responses of CADI, 71.1% of the patients felt aggressive, frustrated or embarrassed as a result of having acne [26]. Studies have shown that impairment of Quality of Life in females was more when compared to males which could be due to the fact that adolescent girls are more vulnerable to the negative psychological effects of acne [27-29]. Hahm *et al.* indicated that oral administration of isotretinoin in patients with acne vulgaris relieved symptoms of depression which was mostly related to acne-related life quality enhancements rather than to improvement in acne grade [30]. Besides, Niemeier *et al.* suggested that

dermatologists should have some knowledge of the basics of psychotherapy and psychopharmacology, which sometimes must be combined with systemic and topical treatment of acne in conjunction with basic psychosomatic treatment [31]. The Quality of Life may also be affected by the severity of acne. Krejci Manwaring *et al.* reported a positive correlation between acne severity and poorer quality of life [32]. The majority of our study population consisted of educated and unmarried people belonging to urban areas reflecting that the Quality of Life is affected more in these patients. Hence proper counseling and psycho social support should be given to improve the Quality of Life in these patients.

V. CONCLUSION

Evaluation of Quality of Life in patients with acne is important as it helps in the pharmacological as well as psychological treatment of these patients in a more effective and integrated way. Acne has an impact on Quality of Life (QOL) and evaluation of Quality of Life helps in the better management of patients with acne.

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