

## ORIGINAL ARTICLE

# Assessment of Symptom Severity and Quality of Life in Patients with Oral Lichen Planus – A cross Sectional Study

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## ABSTRACT

**Background:** Oral lichen planus is a long-lasting condition that results in oral lesions, discomfort, and functional difficulties, thereby diminishing the quality of life related to oral health. This study assesses the severity of symptoms in Oral lichen planus (OLP) patients and how it affects their quality of life. **Methods & Materials:** This cross-sectional study conducted at Bangladesh Medical University and Bangladesh Multicare Hospital (January–December 2025) involved 74 patients with OLP. Sociodemographic and clinical information was gathered, and the severity of symptoms was rated (0 = None to 3 = Severe). Quality of life related to oral health was evaluated using OHIP-14, with scores classified as high (<19), medium (19–37), or low (38–56). Descriptive statistics provided an overview of the data, and Chi-square tests assessed the relationships between symptom severity and quality of life ( $p < 0.05$ ). **Results:** Among 74 OLP patients, 55% were female, mostly aged 30–45 years (43%), with 35% housewives. Reticular lesions (39%) mainly affected the buccal mucosa (46%), and burning sensation was the most common symptom (46%). Symptom severity was mild (51%), moderate (30%), severe (12%), with a mean OHIP-14 score of  $20.9 \pm 5.3$ . Quality of life was medium in 62%, high in 31%, low in 7%, and correlated significantly with symptom severity ( $\chi^2 = 24.6$ ,  $p = 0.001$ ). **Conclusion:** Oral Lichen Planus impacts middle-aged individuals, presenting as reticular lesions in the mouth; the intensity of symptoms, particularly burning, correlates with diminished quality of life, highlighting the necessity for prompt treatment.

**Keywords:** Symptom Severity, Quality of Life, Oral Lichen Planus

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## INTRODUCTION

Oral lichen planus (OLP) is a relatively prevalent mucocutaneous condition, impacting roughly 0.1–4% of people, contingent on the population examined. It mainly affects adults and is more common in women, with an approximate female-to-male ratio of about 2:1<sup>[1]</sup>. While cutaneous lichen planus (LP) lesions are often self-limiting and pruritic, oral lesions tend to be chronic, persistent, and associated with significant morbidity<sup>[2]</sup>. The precise cause of this lesion is still unclear, but it is thought to involve immune-related processes<sup>[3]</sup>.

Mucosal involvement may take place in the oral, genital, ocular, optic, and esophageal areas, and less commonly in the bladder, nasal, laryngeal, and anal regions<sup>[4]</sup>. It produces purplish, itchy skin lesions on flexor surfaces and frequently appears alongside oral lesions, primarily reticular or erosive<sup>[5]</sup>. The reticular variant of OLP may advance to erosive, atrophic, or bullous forms, leading to red, painful lesions that are aggravated by irritants. Symptoms vary and can affect eating, speaking, and oral hygiene, potentially resulting in fatigue, anxiety, stress, or fear of cancer<sup>[6]</sup>.

The chronic and variable nature of OLP impacts patients' physical, social, and mental quality of life<sup>[7]</sup>. OHRQoL evaluates how oral diseases and treatments affect patients' perceptions,

facilitating assessment and treatment planning<sup>[8]</sup>. Individuals with OLP face diminished oral health-related quality of life, mainly because of pain, functional limitations, and psychosocial distress, which can be alleviated through treatment<sup>[9]</sup>. Patients with OLP frequently suffer from pain and diminished quality of life, with more intense symptoms associated with increased functional restrictions and poorer OHRQoL<sup>[10]</sup>. In particular, erosive and ulcerative forms of OLP can profoundly disrupt daily activities, with pain intensity typically reflecting clinical severity<sup>[11]</sup>.

In Bangladesh, research on OLP has largely focused on clinical characteristics and treatment outcomes, with limited attention to systematic evaluation of symptom severity or quality of life. A recent case study detailed a patient with oral bullous lichen planus and recorded treatment results, while a previous study in tertiary hospitals outlined the clinical profiles of lichen planus patients; however, neither assessed oral health-related quality of life nor utilized standardized instruments such as OHIP-14<sup>[12,13]</sup>. The purpose of the research to evaluate Symptom Severity and Quality of Life in Individuals with Oral Lichen Planus and to assess the intensity of symptoms in OLP patients and ascertain the effects these symptoms have on their oral health-related quality of life (OHRQoL).

**METHODS & MATERIALS**

**Study settings:** This study was a cross-sectional study carried out at Bangladesh Medical University and Bangladesh Multicare Hospital, Bangladesh, from January 2025 to December 2025, including a total of 74 participants diagnosed with Oral Lichen Planus (OLP).

**Gathering Data:**

- **Sociodemographic details:** age, sex, profession
- **Clinical features:** type and location of lesion, symptoms, and potential causes.
- **Severity of symptoms evaluated through clinical grading:** 0=None, 1=Mild, 2=Moderate, 3=Severe

**Evaluation of Life Quality:**

- The OHIP-14 questionnaire assesses seven subdomains: functional limitations, physical pain, psychological discomfort, physical disability, psychological disability, social disability, and handicap.
- Every item received a score ranging from 0 to 4 (0: Never, 1: Rarely, 2: Occasionally, 3: Frequently, 4: Extremely Often)

**Overall scores classified as:**

- Elevated living standards: <19

- Quality of life at a medium level: 19–37
- Poor quality of life: 38–56

**Data Examination:**

1. Descriptive statistics were employed to summarize sociodemographic, clinical, and OHIP-14 information.
2. Chi-square test utilized to investigate the relationship between symptom severity and quality of life.
3. Level of significance established at  $p < 0.05$

**RESULTS**

Table I shows sample included 74 participants, featuring a marginally greater percentage of females (55.41%) than males (44.59%). Concerning age distribution, the majority of participants fell within the 30 to 45 years range (43.24%), followed by individuals aged 46–60 years (22.97%), those under 30 years (18.92%), and those over 60 years (14.86%). Regarding employment, housewives constituted the largest category (35.14%), succeeded by service workers (25.68%), entrepreneurs (17.57%), students (14.86%), and other professions (6.76%). This indicates that the majority of the study population comprised middle-aged adults, particularly women and housewives.

**Table – I: Sociodemographic Characteristics (n=74)**

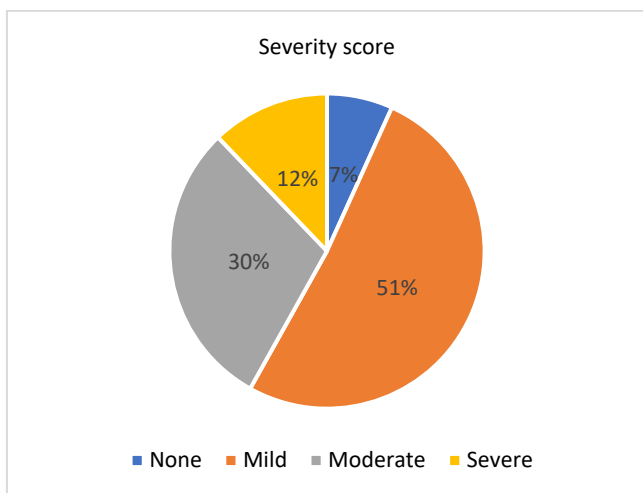
Variable	Category	Frequency(n)	Percentage (%)
Gender	Male	33	44.59
	Female	41	55.41
Age	<30 years	14	18.92
	30-45years	32	43.24
	46-60 years	17	22.97
	>60 years	11	14.86
Occupation	Housewife	26	35.14
	Service holder	19	25.68
	Business	13	17.57
	Student	11	14.86
	Others	5	6.76

Table II presents, reticular lesions were the most prevalent (39%) among OLP patients, followed by atrophic (28%) and erosive forms (24%), with the buccal mucosa involved in 46% of instances. The primary symptom was a burning feeling experienced by 46%, whereas mouth sores (23%), itching

(16%), and dry mouth (9%) occurred less often. Immune dysfunction (35%), genetic influences (19%), medications (14%), dental materials (16%), viral infections (11%), and stress (5%) were recognized as possible contributing elements, emphasizing the complex nature of OLP.

**Table – II: Clinical Characteristics of OLP (n=74)**

Clinical Feature	Category	Number of Patients (n)	Percentage (%)
Type of Lesion	Reticular	29	39.19
	Erosive	18	24.32
	Atrophic	21	28.38
	Plaque	4	5.41
	Bullous	2	2.70
Site of Lesion	Buccal mucosa	34	45.95
	Tongue	8	10.81
	Gingiva	19	25.68
	Lips	4	5.41
	Other (palate, floor of mouth)	9	12.16
Symptoms	Burning Sensation	38	46.34
	Mouth Ulcer	19	23.17
	Itching	13	15.85
	Dry mouth	7	8.54
	Others	5	6.10
Causes	Immune system dysfunction	26	35.14
	Genetic predisposition	14	18.92
	Medications	10	13.51
	Dental materials	12	16.22
	Viral infections	8	10.81
	Stress and psychological factors	4	5.41



**Figure - 1: Distribution of Symptom Severity Among OLP Patients according to clinical grading (n=74)**

[Symptom severity Scoring: 0=None, score 1=Mild, Score 2=Moderate, Score 3=Severe]

Figure 1 shows the severity of symptoms in patients indicates that the majority had mild symptoms (51.35%), with moderate symptoms following (29.73%) and severe symptoms next (12.16%), while a minority exhibited no symptoms (6.76%). Applying the scoring system (0=None, 1=Mild, 2=Moderate, 3=Severe), this suggests that most patients exhibited low to moderate symptom severity, with only a small number facing severe discomfort.

**Table - IV: Distribution of Quality-of-Life Category among Patients with Oral Lichen Planus (n=74)**

Quality of Life Category	OHIP-14 Score Range	Frequency (n)	Percentage (%)
High Quality of Life	<19	23	31.08
Medium Quality of Life	19-37	46	62.16
Low Quality of Life	38-56	5	6.76
Total	—	74	100.0

Table V presents the examination reveals a strong correlation between the severity of symptoms and quality of life ( $\chi^2 = 24.6$ ,  $p = 0.001$ ). Patients without symptoms predominantly indicated a high quality of life (80%), whereas those with mild symptoms were nearly divided between high (47.4%) and medium QoL (52.6%). For patients with moderate symptoms,

Table III shows the OHIP-14 evaluation of 74 OLP patients indicates that physical pain recorded the greatest mean effect ( $4.5 \pm 1.3$ ), then came functional limitation ( $3.2 \pm 1.1$ ), psychological disability ( $3.1 \pm 1.1$ ), and physical disability ( $3.0 \pm 1.0$ ). Psychological discomfort ( $2.8 \pm 1.2$ ) and social disability ( $2.5 \pm 0.9$ ) showed moderate effects, while handicap had the least impact ( $1.8 \pm 0.8$ ). The overall OHIP-14 score ( $20.9 \pm 5.3$ ) reflects a moderate decline in oral health-related quality of life, where physical pain plays the largest role in patients' everyday challenges

**Table - III: OHIP-14 scores Indicating Subgroup Impacts on Oral Health-Related Quality of Life in OLP Patients (n=74)**

Subgroup	Mean $\pm$ SD (n=74)
Functional Limitation	$3.2 \pm 1.1$
Physical Pain	$4.5 \pm 1.3$
Psychological Discomfort	$2.8 \pm 1.2$
Physical Disability	$3.0 \pm 1.0$
Psychological Disability	$3.1 \pm 1.1$
Social Disability	$2.5 \pm 0.9$
Handicap	$1.8 \pm 0.8$
Total OHIP-14 Score	$20.9 \pm 5.3$

Table IV shows the assessment of quality of life using OHIP-14 among 74 OLP patients indicates that most (62.16%) reported medium quality of life, 31.08% indicated high quality of life, and a minor percentage (6.76%) experienced low quality of life. This suggests that the majority of patients faced moderate effects on their quality of life related to oral health, with only a small number significantly impacted.

most (81.8%) experienced medium QoL, while a minor fraction (4.5%) had low QoL. In cases of severe symptoms, over 44% reported low QoL, and no one indicated high QoL. In general, this suggests that a rise in symptom severity is significantly linked to a decline in oral health-related quality of life.

**Table - V: Association Between Symptom Severity and Quality of Life among OLP Patients (n=74)**

Symptom Severity	High QoL (<19) n (%)	Medium QoL (19-37) n (%)	Low QoL (38-56) n (%)	Total (n)	Chi-square test	p-value
None (n=5)	4 (80.0)	1 (20.0)	0 (0.0)	5	$\chi^2 = 24.6$	0.001*
Mild (n=38)	18 (47.4)	20 (52.6)	0 (0.0)	38		
Moderate (n=22)	3 (13.6)	18 (81.8)	1 (4.5)	22		
Severe (n=9)	0 (0.0)	5 (55.6)	4 (44.4)	9		
Total	25 (33.8)	44 (59.5)	5 (6.8)	74		

Note: Chi-square test applied; \*p-value- statistically significant

**DISCUSSION**

This study involving 74 oral lichen planus (OLP) patients, there was a slight predominance of females with a majority of participants being middle-aged, consistent with common OLP demographics and previous findings of female and middle-aged adult dominance [14]. These patterns of age and gender are important for grasping disease prevalence, risk factors, and

clinical presentation. Housewives constituted the largest occupational category, indicating a rise compared to certain earlier OLP studies, mirroring local sociodemographic trends [14]. Lifestyle elements, such as stress and everyday habits, can influence symptom awareness and disease experience in OLP, emphasizing the importance of customized management approaches for middle-aged women.

In this study of OLP patients, reticular lesions were the most prevalent at 39%, followed by other types, aligning with clinical descriptions that often highlight reticular lesions as predominant (Mollaoglu, 2000). The buccal mucosa was the most impacted area at 46%, aligning with findings that the buccal mucosa, tongue, and gingiva are the main oral sites for OLP lesions, whereas palatal involvement is rare (Mollaoglu, 2000) [15].

The predominant symptom is a burning sensation, accompanied by others, which aligns with earlier findings that symptom severity frequently correlates with erosive and atrophic forms (Sugerman et al., 2000) [16]. Immune dysfunction at 35% was the primary contributing factor, with immune-mediated mechanisms and various triggers playing roles in lesion formation and persistence (Sugerman et al., 2000; Mollaoglu, 2000) [15,16]. These results emphasize the varied clinical manifestations and stress the significance of customized treatment.

In this study, the majority of patients exhibit mild symptoms. This is consistent with earlier research indicating that most OLP patients report low to moderate discomfort, whereas severe symptoms are rarer (Sugerman et al., 2000; López-Jornet et al., 2010) [1,16]. The severity of symptoms is related to clinical characteristics and can influence daily activities, emphasizing the need for standardized scoring systems to direct evaluation and treatment.

In 74 OLP patients, physical discomfort significantly affected their oral health-related quality of life. The total OHIP-14 score reflects a moderate decrease in quality of life, mainly due to pain that affects daily tasks and social interactions. These results coincide with earlier research emphasizing pain as the primary factor affecting quality of life in OLP [1,17].

In this study, a majority indicated a medium quality of life, suggesting a moderate effect on oral health. This is consistent with earlier research indicating that OLP mainly impacts pain, functionality, and psychological well-being, whereas significant impairment is rare [9]. Routine OHIP-14 evaluation aids in recognizing patients who require focused symptom management and assistance.

In general, oral lichen planus substantially influences patients' quality of life, as increased symptom severity and painful lesions result in more significant functional and psychosocial effects.

## CONCLUSION

Oral Lichen Planus primarily impacts middle-aged individuals, with reticular lesions and involvement of the buccal mucosa being the most prevalent. The majority of patients report mild to moderate symptoms, mainly a burning sensation, which moderately impacts oral health-related quality of life, particularly because of physical discomfort and functional restrictions. The intensity of symptoms is closely linked to a

reduced quality of life, emphasizing the importance of prompt treatment to enhance patients' everyday functioning and overall health.

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