

# Awareness assessment in Turkish subpopulation with chronic oral mucosal diseases

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## ABSTRACT

**Objectives:** The aim of this study was to evaluate the awareness of group Turkish patients with chronic oral mucosal diseases by chronic oral mucosal diseases questionnaires (COMDQ). **Materials and Methods:** Eighty patients with chronic oral mucosal diseases were participated in the study. A detailed medical history of each patient was taken, and all the COMDQ questions, which were translated from English version, were filled out. The data were analyzed with the IBM Statistical Package for Social Sciences Statistics 22.0. **Results:** The mean ages of patients were  $48.91 \pm 13.36$  years. Of the total 80 cases of chronic oral mucosal diseases identified 52 (65%) were female and 28 (35%) male. The standardized mean scores for COMDQ were  $1.72 \pm 1.11$  for “pain and functional limitation,”  $1.09 \pm 0.94$  for “medication and treatment,”  $2.31 \pm 1.06$  for “social and emotional,” and  $2.27 \pm 0.83$  for “patient support,” respectively. **Conclusions:** The results of this study indicate that the Turkish version of the COMDQ has the profitable psychometric peculiarity and comfortable to patients with chronic oral mucosal diseases in Turkey.

**Key words:** Awareness, chronic oral mucosal diseases, quality of life

## INTRODUCTION

Chronic oral mucosal diseases are a group of diseases including autoimmune, inflammatory, and infectious conditions that can affect the oral mucosa. These conditions can result in substantial morbidity with the emotional and functional outcome for patients.<sup>[1]</sup> Oral diseases can change an aspect and cause to decline in interpersonal and family relationships. In addition, they have harmful impaction on speaking, mastication, and self-respect.<sup>[2-4]</sup> The chronic oral mucosal diseases not only affect the daily lives of patients but also can affect the patients' quality of life (QoL) with various treatment options and their side effects. These conditions critically disturb life quality in most people and can influence diverse of life such as nutrition, chewing, aspect, and social interaction.

Knowledge concerning the effect of oral mucosal diseases on life quality is an identified requirement. Hence, the most of the various patients based oral health status measurements have been improved over the past decade to evaluate the emotional, functional, psychosocial outcomes of oral mucosal diseases, and the influence of oral health situation on life quality.<sup>[5]</sup> The measurements enhance the connection between

patients and clinicians and supply better knowledge of the impact of oral disorders on life quality.<sup>[5-7]</sup>

According to the World Health Organization, QoL is described as a personal sensation of his/her status in life in the cultural context in which she/he lives and concerning his/her aims, hopes, and standards.<sup>[5]</sup> The patient centered measurements of oral health conditions were first identified by Cohen and Jago<sup>[8]</sup> in 1976, who defined the deficit of information regarding the psychosocial effect of oral health issue. Conversely, Cohen and Jago,<sup>[8]</sup> the relation to the social impact of the oral disease was described using societal indicators by Reisine.<sup>[9]</sup> A number of researchers have employed oral specific health measures. Hence,

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the various psychometric measurements have been used to measure oral health-related quality of life (OHQoL).<sup>[10]</sup>

The QoL measurement instruments can be divided into generic, disease-specific, and discipline-specific questionnaires.<sup>[11,12]</sup> Generic QoL questionnaires cannot detect small, clinically important changes related with a specific disease, but they allow to make comparisons between different diseases. Disease-specific questionnaires accurately predict clinical changes related with a specific disease but do not let to make a comparison against diseases.<sup>[5,11-15]</sup> Chronic oral mucosal diseases questionnaires (COMDQ) is a discipline-specific questionnaire developed for the area of oral medicine and radiology.<sup>[5]</sup>

COMDQ has been recently developed that consists of 26 items. The items are sorted accordingly clinical decision into four domains; pain and functional limitation, medications and side effects, social and emotional, and patient support.<sup>[5,12,16]</sup>

A variety of patients based outcome instruments called "OHQoL measures" have been improved.<sup>[17,18]</sup> "OHQoL" centered on the appearances of individual life affected by oral health issues and assess as a multidimensional properties, which comprises not just physical functioning and pain, but also psychosocial functioning, mental health, appearance, and life satisfaction.<sup>[2,19,20]</sup> In this study, the COMDQ have used, and it was translated into Turkish, so we evaluated the availability of the questionnaire in Turkish patients.

Therefore, the aim of this study was to evaluate the awareness of group Turkish patients with chronic oral mucosal diseases by COMDQ.

## MATERIALS AND METHODS

### Subjects

Eighty patients with chronic oral mucosal diseases attending the Department of Oral Diagnosis and Radiology of Marmara University of Faculty of Dentistry were participated in this study. Overall, 80 cases of oral mucosal diseases included burning mouth syndrome, geographic tongue, gingival pigmentation, erosive cheilitis, hemangioma, hyperkeratosis, lichen planus, lichenoid reaction, lipom, oral leukoplakia, papillomatous, pyogenic granuloma, changes related to prosthesis, pseudoxanthoma elasticum, recurrent aphthous stomatitis, squamous cell carcinoma,

changes to related trauma and vesicobullous diseases. A detailed medical history of each patient was taken and prediagnosed patients were told about the content of the questionnaire. Those who want to participate in the questionnaire have included. The patient's sociodemographic information of age, gender, and work were assessed. This study was performed according to the guidelines at the declaration of Helsinki concerning ethical principles for medical research involving human subjects. Due to the retrospective nature of this study, ethical board approval was not by local laws and regulations, and the informed consent requirement was waived by the departments where the study was carried out.

### The instrument

COMDQ is an OHQoL instrument containing 26 items. The items are sorted accordingly clinical decision into four domains: Pain and functional limitation (nine items), medication and treatment (six items), social and emotional (seven items), and patient support (four items). For each item, patients answered by using a Likert-type response scale coded. Responses were coded 0 = "not at all," 1 = "slightly," 2 = "moderately," 3 = "considerably," 4 = "extremely" [Table 1].

### Statistical analysis

The data were analyzed with the IBM Statistical Package for Social Sciences for Windows 22.0 (Armonk, New York: IBM Corp). Descriptive statistical methods (mean and frequency) were used for evaluation of the data. The Kruskal-Wallis test was used to evaluate comparisons between quantitative data. Statistical significance of differences among the groups was determined by Mann-Whitney U-test (for nonparametric distribution). The values of  $P < 0.05$  were interpreted as significant.

## RESULTS

### Patient characteristics

Eighty patients (52 female and 28 male) with chronic oral mucosal diseases were enrolled in the study. The patients were aged 19-79 and the average age was  $48.91 \pm 13.36$ . Of the total 80 cases of chronic oral mucosal diseases identified 33 (41.3%) were employed, 35 (43.8%) unemployed, and 12 (15%) retired. Among these 80 patients, the most common was burning mouth syndrome (20%), lichen planus (15%), and changes to related trauma (14.6%) were followed. The standardized mean scores for COMDQ were  $1.72 \pm 1.11$  for "pain and functional limitation,"  $1.09 \pm 0.94$  for "medication and treatment,"  $2.31 \pm 1.06$

**Table 1: Chronic oral mucosal diseases questionnaire (14)**

## Pain and functional limitation

1. How much do certain types of food/drink causes you discomfort (spicy food, acidic food)?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
2. How much does your oral condition cause you to limit the types of food/drinks you consume?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
3. How much do certain food textures causes you discomfort (rough food, crusty food)?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
4. How much does your oral condition cause you to limit the textures of the food you consume?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
5. How much does the temperature of certain foods/drinks cause you discomfort?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
6. How much does your oral condition cause you to limit the temperature of the foods/drinks you consume?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
7. How much does your oral condition lead to discomfort when carrying out your daily oral hygiene routine?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
8. How much does your oral condition cause you to limit your daily oral hygiene routine?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
9. How much does your oral condition lead to discomfort when wearing a denture (false teeth)?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
Medication and treatment		
1. How much do you feel you need medication to help you with activities of daily life (talking, eating, etc.)?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4

*Contd...*

**Table 1: Contd...**

2. How satisfied are you with the medication being used to treat your oral condition?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
3. How concerned are you about the possible side effects of the medications used to treat your oral condition?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
4. How much does it frustrate you that there is no single standard medication to be used in your oral condition?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
5. How much does the use of the medication limit you in your everyday life?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
6. How much does it bother you that there is no cure for your oral condition?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
Social and emotional		
1. How much does your oral condition get you down?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
2. How much does your oral condition cause you anxiety?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
3. How much does your oral condition cause you stress?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
4. How much does the unpredictability of your oral condition bother you?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
5. How much does your oral condition cause you to worry about the future?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4
6. How much does your oral condition make you pessimistic about the future?	Not at all	<input type="checkbox"/> 0
	Slightly	<input type="checkbox"/> 1
	Moderately	<input type="checkbox"/> 2
	Considerably	<input type="checkbox"/> 3
	Extremely	<input type="checkbox"/> 4

*Contd...*

**Table 1: Contd...**

7. How much does your oral condition disrupt social activities in your life (social gatherings, eating out parties)?	Not at all	□0
	Slightly	□1
	Moderately	□2
	Considerably	□3
	Extremely	□4
<b>Patient support</b>		
1. How satisfactory do you consider the information available to you regarding your oral condition?	Not at all	□0
	Slightly	□1
	Moderately	□2
	Considerably	□3
	Extremely	□4
2. How satisfied are you with the level of support and understanding shown to you by the family regarding this oral condition?	Not at all	□0
	Slightly	□1
	Moderately	□2
	Considerably	□3
	Extremely	□4
3. How satisfied are you with the level of support and understanding shown to you by friends/work colleagues regarding your oral condition?	Not at all	□0
	Slightly	□1
	Moderately	□2
	Considerably	□3
	Extremely	□4
4. How isolated do you feel as a result of this oral condition?	Not at all	□0
	Slightly	□1
	Moderately	□2
	Considerably	□3
	Extremely	□4

for “social and emotional,” and  $2.27 \pm 0.83$  for “patient support,” respectively. The median scores of patients’ answers to COMDQ questionnaire are shown in Table 2.

#### Assessments related gender

The score of social and emotional in female was statistically significantly higher than male ( $P < 0.05$ ) [Table 3]. Significant differences were not observed among the genders for the other domains ( $P > 0.05$ ).

#### Assessments related ages groups

The scores of pain and functional limitation were shown statistically significant difference ( $P < 0.05$ ). In under the age of 45, the scores were determined significantly higher than the age of 45 and older [Table 4]. Significant age-related differences were not observed in the other domains ( $P > 0.05$ ).

#### Assessments related employment state

The scores of pain and functional limitation were shown statistically significant difference ( $P < 0.05$ ). As a result of the dual comparison, unemployed group scores were determined significantly higher than retired group ( $P < 0.05$ ). There were no statistically significant differences between the other groups ( $P > 0.05$ ) [Table 5].

The scores of medication and treatment were shown statistically significant difference ( $P < 0.05$ ). As a result of the dual comparison, the employed and unemployed group scores were determined significantly higher than retired group ( $P < 0.05$ ). There were no statistically significant differences between the other groups ( $P > 0.05$ ) [Table 5].

The scores of social and emotional were shown statistically significant difference ( $P < 0.05$ ). As a result of the dual comparison, the employed and unemployed group scores were determined significantly higher than retired group ( $P < 0.05$ ). There were no statistically significant differences between the other groups ( $P > 0.05$ ) [Table 5].

According to employment state, the scores of patient support were not shown statistically significant difference ( $P > 0.05$ ) [Table 5].

#### Assessments related diseases

According to diseases, the groups that a number of cases below five were not evaluated. The groups that a number of cases were more than five were evaluated. The scores of “pain and functional limitation,” “medication and treatment,” “social and emotional,”

**Table 2: Chronic oral mucosal diseases questionnaire**

	n (%)					Mean±SD
	Not at all	Slightly	Moderately	Considerably	Extremely	
Pain and functional limitation						1.72±1.11
1	18 (22.5)	17 (21.3)	16 (20)	20 (25)	9 (11.3)	1.81±1.34
2	29 (36.3)	14 (17.5)	10 (12.5)	18 (22.5)	9 (11.3)	1.55±1.46
3	25 (31.3)	13 (16.3)	10 (12.5)	17 (21.3)	15 (18.3)	1.80±1.54
4	27 (33.8)	14 (17.5)	11 (13.8)	14 (17.5)	14 (17.5)	1.68±1.52
5	28 (35)	18 (22.5)	8 (10)	11 (13.8)	15 (18.8)	1.59±1.54
6	31 (38.8)	15 (18.8)	11 (13.8)	12 (15)	11 (13.8)	1.46±1.48
7	26 (32.5)	21 (26.3)	6 (7.5)	21 (26.3)	6 (7.5)	1.50±1.38
8	36 (45)	14 (17.5)	8 (10)	18 (22.5)	4 (5)	1.25±1.36
9	25 (31.3)	6 (7.5)	4 (5)	5 (6.3)	40 (50.1)	2.86±2.28
Medication and treatment						1.09±0.94
1	54 (67.5)	7 (8.8)	8 (10)	8 (10)	3 (3.8)	0.74±1.21
2	43 (53.8)	9 (11.3)	7 (8.8)	12 (15)	9 (11.3)	1.19±1.49
3	49 (61.3)	13 (16.3)	3 (3.8)	8 (10)	7 (8.8)	0.89±1.36
4	43 (53.8)	6 (7.5)	9 (11.3)	10 (12.5)	12 (15)	1.28±1.57
5	53 (66.6)	11 (13.8)	10 (12.5)	5 (6.3)	1 (1.3)	0.63±1.01
6	34 (42.5)	5 (6.3)	7 (8.8)	11 (13.8)	23 (28.8)	1.80±1.75
Social and emotional						2.31±1.06
1	3 (3.8)	12 (15)	13 (16.3)	19 (23.8)	33 (41.3)	2.84±1.23
2	5 (6.3)	12 (15)	16 (20)	20 (25)	27 (33.8)	2.65±1.26
3	5 (6.3)	11 (13.8)	17 (21.3)	20 (25)	27 (33.8)	2.66±1.25
4	17 (21.3)	7 (8.8)	10 (12.5)	21 (26.3)	25 (31.3)	2.38±1.53
5	11 (13.8)	12 (15)	14 (17.5)	23 (28.8)	20 (25)	2.36±1.37
6	21 (26.3)	12 (15)	10 (12.5)	30 (37.5)	7 (8.8)	1.88±1.39
7	34 (42.5)	14 (17.5)	12 (15)	7 (8.8)	13 (16.3)	1.39±1.51
Patient support						2.27±0.83
1	6 (7.5)	7 (8.8)	8 (10)	24 (30)	35 (43.8)	2.94±1.26
2	11 (13.8)	2 (2.5)	5 (6.3)	26 (32.5)	36 (45)	2.93±1.37
3	14 (17.5)	4 (5)	10 (12.5)	36 (45)	16 (20)	2.45±1.35
4	51 (63.8)	13 (16.3)	5 (6.3)	6 (7.5)	5 (6.3)	0.76±1.23

SD: Standard deviation

**Table 3: Assessments related gender**

	Mean±SD		P
	Female	Male	
Pain and functional limitation	1.81±1.13 (1.56)	1.56±1.08 (1.56)	0.405
Medication and treatment	1.21±0.97 (1.17)	0.86±0.85 (0.75)	0.142
Social and emotional	2.51±0.99 (2.57)	1.93±1.09 (2.14)	0.023*
Patient support	2.28±0.79 (2.25)	2.25±0.93 (2.5)	0.648

Mann–Whitney U-test. \*P&lt;0.05. SD: Standard deviation

**Table 4: Assessments related age groups**

	Mean±SD		P
	<45 years	≥45 years	
Pain and functional limitation	2.19±1.28 (2.44)	1.48±0.94 (1.33)	0.011*
Medication and treatment	1.36±0.99 (1.5)	0.96±0.88 (0.83)	0.079
Social and emotional	2.61±1.10 (2.86)	2.15±1.01 (2.14)	0.059
Patient support	2.48±0.83 (2.5)	2.16±0.82 (2.25)	0.097

Mann–Whitney U-test. \*P&lt;0.05. SD: Standard deviation

and “patient support” support were not shown statistically significant difference ( $P > 0.05$ ) [Table 6].

## DISCUSSION

To our knowledge, the present study was the first study evaluating the psychometric properties of the COMDQ in Turkish patients. QoL measures are increasingly being used for evaluate the perceived impact of oral health in different patient populations. It is important to detect the character of the complaints that lead patients to look for a cure and to what degree these influence patients' life quality.<sup>[21]</sup> Therefore, there is an increasing need for use in different languages.

When reviewed the literatures, COMDQ was not used in Turkish population before but also other similar measures were used. Mumcu *et al.*<sup>[2]</sup> evaluated the multidimensional concept of oral health impact profile-14 (OHIP-14) in Behçet's disease and recurrent aphthous stomatitis. The study was found that OHIP-14 was easy and useful enough for clinicians and patients to use and evaluate. In the other study,

**Table 5: Assessments related employment state**

	Employment state (mean±SD)			P
	Employed	Unemployed	Retired	
Pain and functional limitation	1.64±0.16 (1.56)	1.98±1.0 (1.56)	1.19±1.14 (0.78)	0.047*
Medication and treatment	1.06±0.86 (0.83)	1.33±1.03 (1.5)	0.46±0.51 (0.33)	0.034*
Social and emotional	2.27±1.17 (2.43)	2.62±0.85 (2.71)	1.49±0.88 (1.71)	0.006**
Patient support	2.32±0.91 (2.75)	2.19±0.87 (2.25)	2.37±0.42 (2.25)	0.436

Kruskal-Wallis test. \*P&lt;005. SD: Standard deviation

**Table 6: Assessments related diseases**

Disease	n	Mean±SD			
		Pain and functional limitation	Medication and treatment	Social and emotional	Patient support
Burning mouth syndrome	16	1.33±0.86 (1.2)	0.83±0.92 (0.7)	2.41±0.82 (2.4)	2.27±0.84 (2.3)
Geographic tongue	1	2.11	1.83	3.29	1.75
Gingival pigmentation	2	0.22±0 (0.2)	0.25±0.35 (0.3)	2.14±0.61 (2.1)	2.5±0.35 (2.5)
Erosive cheilitis	2	1.83±2.44 (1.8)	1.08±1.06 (1.1)	2.86±1.01 (2.9)	2.38±0.18 (2.4)
Hemangioma	3	1.37±1.18 (1.6)	1.39±0.75 (1.3)	2.62±2.02 (3.7)	3.25±0.66 (3)
Hyperkeratosis	4	2.03±1.12 (1.9)	0.71±0.7 (0.6)	2.54±0.98 (2.8)	1.94±0.83 (2)
Lichen planus	12	1.65±1.08 (1.4)	1.18±0.98 (1.3)	2.1±1.09 (2.1)	2.25±0.78 (2.3)
Lichenoid reaction	5	2.4±1.2 (2.6)	1.2±1.31 (0.8)	2.66±0.59 (2.7)	2.4±0.38 (2.3)
Lipom	1	0.44	0	0	2.25
Oral leukoplakia	3	0.85±0.67 (0.8)	1.33±0.88 (1)	1.62±1.35 (1.1)	2.42±0.52 (2.3)
Papillomatous	1	1.56	2.67	2.86	2.75
Pyogenic granuloma	1	1.22	0	1.86	3
Changes related to prosthesis	5	1.13±0.74 (1.6)	0.57±0.8 (0)	1.51±0.98 (1.3)	1.6±1.28 (1.5)
Pseudoxanthoma elasticum	1	2.78	1.83	4	3.5
Recurrent aphthous stomatitis	6	2.67±1.33 (3.2)	1.58±0.97 (1.6)	3.02±0.67 (3.1)	2.08±1.25 (2.3)
Squamous cell carcinoma	1	1.56	0	0	3
Changes to related trauma	10	2.01±1.15 (1.9)	1.1±0.83 (1.2)	2.2±1.06 (2.3)	2.33±0.72 (2.5)
Vesicobullous diseases	6	2.39±1.02 (2.8)	1.67±0.95 (1.4)	2.5±1.1 (2.2)	1.96±0.94 (1.8)
P		0.120	0.333	0.279	0.878

Kruskal-Wallis test. P&lt;0.05. SD: Standard deviation

evaluated and compared OHQoL in patients from UK and Turkey with Behçet's disease by using OHIP-14.<sup>[22]</sup> The comparison results showed that patients from UK and Turkey had the same impairment in their oral QoL status. Furthermore, Mumcu *et al.*<sup>[23]</sup> investigated oral and general health related QoL in patients with Behçet's disease and assessed the yield of Turkish versions of OHIP-14, OHQoL, and short form-36 (SF-36) questionnaires. OHIP-14 and OHQoL are specific questionnaires for oral health and SF-36 is the general measure of health status. The study demonstrated that both specific and general questionnaires scores were significantly worse in patients with Behçet's disease. In the other study in Turkey, determined which complaints cause patients to come to their clinic and to what degree those complaints affect their QoL.<sup>[21]</sup>

Min *et al.*<sup>[12]</sup> found that the Chinese version of the COMDQ has good reliability and validity can be

applicable to assess the QHRoL of patients with chronic oral mucosal diseases in China. Similarly, in our study found that the Turkish version of COMDQ is applicable and can be used in evaluating in QoL of patients.

Our study demonstrated that in under the age of 45 the scores were determined significantly higher than the age of older in the domain pain and functional limitation. Likewise, Bijina *et al.*<sup>[5]</sup> evaluated 45 and the QoL in patients with chronic oral mucosal diseases by COMDQ, and the older patients were reported significantly lower score. Furthermore, in our study, in the domain of social and emotional scores were showed a higher in female than male. Contrary, in that study male reported significantly higher oral health related than female in pain and functional limitation.

Furthermore, Baker *et al.*<sup>[24]</sup> reported data on QoL measures in patients xerostomia by using OHIP-14

and oral impacts on daily performance measures, which had good psychometric features as measured in that study. Moreover, Hegarty *et al.*<sup>[25]</sup> studied the relevance of QoL measures, which were UK (OHQoL-UK) and OHIP-14 in oral lichen planus. The results of this study showed that both questionnaires performed well in the assessment of patients with oral lichen planus.

Locker and Allen<sup>[26]</sup> described OHQoL as the effect of oral diseases in daily life that is substantial to patients and reported that the instruments used in oral health examination supply accurate knowledge.

The generic and specific instruments have some advantages and disadvantages. In a previous study published that the comparison of dimensions of OHQoL measured by a generic health state measure and a specific oral health measure.<sup>[27]</sup>

OHIP is one of the most commonly used to measure patient's sensation of the influence of oral diseases on their life. The questionnaire was used previously in many different populations.<sup>[2,6,7,28-30]</sup>

However, some limitations should be considered when interpreting the results. One of them, there is the inhomogeneous distribution of the gender; the majority of patients were female. Furthermore, heterogeneity in age and deficiency in the number of patients might not allow to generalize our findings to the general populations. Further longitudinal studies should be required to generalize.

## CONCLUSION

Chronic oral mucosal diseases are common and the perspicuity and medicinal management of these situations can have an efficacy on the daily lives of patients. QoL measurements can play a key role by helping evaluate the dimensions of the disease and its treatment. Our findings suggest that the Turkish version of COMDQ is applicable and can be used in evaluating QoL of patients. This assessment is so important to determine the patient's QoL.

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## Conflicts of interest

There are no conflicts of interest.

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