

Oral health-related quality of life of postmenopausal women

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Abstract. The purpose of this study was to analyze the oral health-related quality of life in postmenopausal women and to provide basic data as the basis for improving quality of life measures. The subjects included 163 postmenopausal women aged 40 to 65 years, living in Busan and Gyeongnam from July 20 to September 30, 2014. Dry mouth, monthly income, presence of systemic oral disease, use of dentures, and academic level appeared to affect the overall and oral health-related quality of life for postmenopausal women. Thus, oral health education and reflective oral care programs should be developed for implementation.

Key Words: Oral health impact profile (OHIP),

1 Introduction

Women live for more than a third of their lives with menopausal status. Menopause is a normal process of life that women experience; however, most women do not cope well, and there are changes in menopause that women suffer while experiencing middle age, old age, and associated physical changes[1-2].

In the case of middle-aged women, menopausal symptoms are more severe and can lead to a lower quality of life; alternatively, using preventative menopause management methods was related to higher quality of life [3]. With respect to the quality of life, 19.8% of women aged 20-29 years, 41.7% of women aged 40-49 years, and 64.5% of women aged over 60 years reported that their oral health was more important than any other health problems, suggesting that older women more seriously accept the importance of oral health [4]. Estrogen deficiency at menopause is causing gingival inflammation, clinical attachment loss (Clinica Attachment Loss, CAL) to act as a factor of more menopause increases and increased attachment loss of estrogen deficiency is a loss of bone density and increased bone loss of teeth due to influences [5].

Studies on menopause and depression and on their association with women's oral health-related quality of life have been unprecedented. In this study, we investigated

the level of oral health-related quality of life for postmenopausal women using the OHIP-14 and analyzed depression and menopausal symptoms to understand the association between oral health and quality of life to provide a basis for improving women's quality of life, menopause experience, adaptation abilities, and overall oral health.

2 Materials and Methods

2.1 연구대상 및 자료수집

A self-questionnaire was distributed to 180 subjects who agreed to participate in research, with the target demographic being middle-aged women (under 40 years of age) and women over the age of 65 living in Busan and Gyeongnam from July 20 to September 30, 2014. Self-assessment responses to the survey data were then collected. Of those surveyed, data from 163 subjects were used for analysis, with 17 exclusions due to unclear answers.

2.2 조사 내용

For the questionnaire used in this study, there were 12 questions on demographic characteristics, 6 questions on xerostomia, 14 questions regarding how oral health is reflected in the quality of life measurement tool, and 23 questions related to menopausal symptoms.

2.3 통계 분석

Data were analyzed using SPSS Window v.18.0 (SPSS Inc., Chicago, IL, USA). The frequency and percentages were calculated to identify the sociodemographic characteristics of the study subjects. To analyze oral and related factors and their influence on health-related quality of life, multiple regression analysis was performed. Statistical significance was determined by *p*-values less than 0.05.

3 Results and Discussion

3.1 Results

Table 1. Dry mouth symptoms

Division	Mean	SD
When you wake in the morning from a full night's sleep, do you feel that your mouth is dry?	4.47	2.44
Do you feel that your mouth is more dry than usual during the day?	4.26	2.34
Do you feel that your mouth is dry when you eat?	3.94	2.62
Does the dryness of your mouth give you difficulty when swallowing food?	3.53	3.14
Do you feel that the amount of saliva in your mouth is ever insufficient?	3.88	2.91
How much is your overall sense of everyday discomfort due to symptoms of dry mouth?	3.82	2.80
Total score	23.90	13.15

The dry mouth symptom total score was 23.90 ± 13.15 . Scores for questions related to waking up indicated that the most common score for feeling dry mouth was 4.47 ± 2.44 , and the score for your mouth feeling as dry as usual during the day was 4.26 ± 2.44 . The response to the mouth feeling dry when the meal appeared was 3.94 ± 3.14 , net (Table 2).

Table 2. Factors affecting the quality of life of postmenopausal women

Characteristic	β	t	p
Dry mouth symptoms	-0.222	-2.993	0.003
Monthly income	0.181	2.219	0.028
Systemic disease	-0.238	-2.606	0.010
Dentures	0.175	2.109	0.037
Implants	0.113	1.508	0.134

Academic level	0.253	2.557	0.012
Menopause symptoms	-0.018	-0.182	0.855

F = 4.034 ($p < 0.001$), $R^2 = 0.278$, adj, $R^2 = 0.209$

The multiple regression analysis determined that there was an effect on oral health-related quality of life in postmenopausal women, based on presence of dry mouth, amount of monthly income, presence of systemic oral disease, presence of dentures, and education level. The factor that was found to have a significant impact on oral health-related quality of life was demonstrated to be giving, with explanatory model power being 27.8% ($p < 0.05$) (Table 5).

3.2 Discussion

When discussing the results of this study attempting to investigate the impact of oral health-related quality of life according to menopausal symptoms in postmenopausal women with depression targets, the focus was as follows:

Park's study [6] showed the highest score by an average of 23.9 points. The xerostomia average of the study conducted in adults targeted postmenopausal women with 19.44 points in the study.

The results of this study revealed an estrogen decrease due to menopause, among other physical and psychological changes as representative physical symptoms. This is due to the moisture being depleted in the body in order to prevent dryness, which leads to increased incidence of caries or periodontal disease appearing during regular dental examinations; oral saliva training is needed to promote its secretion.

Oral health-related factors were affecting women's quality of life, according to a research by John [2] stating that income level determines results similar to the findings that affect the quality of life, i.e., that middle-aged women need stable and sustainable economic and health policies and strategies for resolving the concerns and issues of oral health promotion through active participation of women.

This study was valuable in understanding the quality of life in postmenopausal women. Future research will seek to provide valuable evidence for the association between symptoms of xerostomia and self-perception of quality of life in menopausal women.

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