

## Recognition of Oral Health Behavior in Korean Migrant Women

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### Abstract

*This study distributed questionnaires to multicultural women in Daejeon, Daegu and some parts of Gyeongbuk from June through September 2017 and collected them immediately. This study described the research goals and purposes for the selected multicultural women and excluded the subjects who refused to participate in the research. In addition, for the multicultural women's proficiency in Korean, those who were unable to communicate in Korean in preliminary liaison were excluded. In oral health behavior according to general characteristics, there were significant differences according to age, marital status, length of residence in Korea and proficiency in Korean (\*  $p < .05$ , \*\* $p < .005$ , \*\*\*  $p < .001$ ), while in functional oral health literacy, there were significant differences according to age, marital status and proficiency in Korean (\*  $p < .05$ , \*\*\*  $p < .001$ ).*

**Keywords:** *Multicultural, Women, Oral, Health, Behavior, Perception, Migrant*

### 1. Introduction

South Korea has changed from a manpower exporter to a manpower importer since the 1980s. The ratio of international marriage has also increased in the 1990s, and foreign residents with various nationalities and forms of sojourning are residing today. To examine the status of foreigners by year, the number increased from 722,686 in 2007 to 1,409,577 in 2012 and 1,711,013 in 2015. The ratio of foreigners increased by more than two times from 1.5% of the total population to 3.4% in 2015. As for the ratio of each type, foreign workers took up 33.5%; compatriots with foreign nationalities, 12.6%; marriage immigrants, 8.5%; international students, 4.8%; and others, 20.3%. As for their nationalities, Korean-Chinese people were 610,554; those with China as their nationality, 258,057; those with Vietnam as their nationality, 207,383; those with Thai as their nationality, 80,933; those with the Philippines as their nationality, 78,570; and those with Cambodia as their nationality, 50,684 [1].

In the status of foreign patients by the types of medical institutions, the number of the actual patients in dental clinics increased by more than two times from 2,219 in 2011 to 5,162 in 2015. The number of the actual patients in dental clinics, also, increased from 1,299 in 2011 to 3,155 in 2015 [2], and it is expected that it would increase further in the future. However, the ratio of the registration of dental clinics that attracted foreign patients decreased from 40.3% in 2013 to 37.1% in 2015, and the dental clinic, also, decreased from 2.7% in

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2013 to 2.5% [2]. In addition, there were lots of foreign patients using dental clinics in countries, such as the U.S., China, Japan and Russia [2] while the ratio of the foreigners' use of dental clinics was very low in countries with high ratios of foreigners, such as Vietnam, the Philippines and Thailand, etc. In Cho et al. [3], multicultural women had a poorer periodontal condition than Korean women did, and their oral health behavior, also, was lower. It is judged that this is because of the foreigners' negligence of oral health management or economic burden, although they had a lower rate of experience of using the dentist's office and had poorer oral hygiene status [4]. In addition, the biggest obstacle in using dental medicine was the language barrier. They had difficulties in communication and understanding the professional medical terms, which were used differently from those in their mother countries [5]. Also, they experienced inconvenience due to the communication problem in taking prescription drugs or using a pharmacy [6]. In addition, in Nam et al. [7], the lower one's proficiency in Korean, the lower one's oral health literacy became, and the lower one's oral health literacy, the lower one's oral health behavior became [8].

This study would assess multicultural women's oral health literacy, measuring oral health literacy of women in multicultural families and contribute to the promotion of oral health of multicultural families by providing basic data for the development of oral health education materials for multicultural families through this.

## **2. Research methodology**

### **2.1. Research subjects**

This study distributed questionnaires to multicultural women in Daejeon, Daegu and some parts of Gyeongbuk from June through September 2017 and collected them immediately. This study described the research goals and purposes for the selected multicultural women and excluded the subjects who refused to participate in the research. In addition, for the multicultural women's proficiency in Korean, those who were unable to communicate in Korean in preliminary liaison were excluded. A survey was conducted with 230 women. The final analysis was conducted with 217 questionnaires, excluding 13 questionnaires collected with missing values.

### **2.2. Research methodology**

As for the research methods, for oral health behaviors, eight questions were composed in total, modifying Chang's preceding study, including regular dental care, scaling, the habit of brushing teeth, the time of a visit to the dental clinic, the use of oral hygiene devices, dietary control, the number of times of snack intake and the path of the acquisition of knowledge about oral health. For functional literacy, referring to Namkoong et al. and Wong et al., the section of literacy was composed of tooth sealing (2 items) and dental caries (1 item); the section of the presentation of data was composed of the usage of toothpaste (1 item), tooth brushing guide (1 item), oral hygiene devices (1 item) and dental materials (1 item); and the section of fix-up was composed of precautions after the extraction of a tooth (2 items) and the method of taking prescription drugs (2 items).

### **2.3. Analysis methodology**

A frequency analysis was conducted on the subjects' general characteristics and perceptions of oral health. A t-test and one-way ANOVA were conducted on the levels of oral

health behaviors and oral functions according to the general characteristics and oral health behaviors and oral functions by oral health concerns. In addition, Pearson’s correlation analysis was conducted on oral health concerns, oral health behavior and functional oral health literacy.

### 3. Research results

#### 3.1. General characteristics of the subjects

To examine the general characteristics of the subjects, for age, 107 persons (49.3%) were aged 20-29; 84 (38.7%), aged 30-39; and 26 (12.0%), aged over 40. For nationality, most of them, 87 persons (40.1%) had Vietnam as their nationality, followed by 37 (17.1%), others; 36 (16.5%), China; 25 (11.5%), the Philippines; 24 (11.1%), Cambodia; and 8 (3.7%), Thailand. For marital status, 148 persons (68.2%) were married; and 69, single (31.8%). For the length of residence in Korea, 74 persons resided for less than two years (34.1%); 51, for 3-5 years (23.5%); and 46, respectively for 6-9 years and more than 10 years (21.2%). For proficiency in Korean, when divided into high, intermediate and low levels, in speaking, most of them, 94 persons (43.3%) were at the intermediate level (average); in reading, 95 (43.8%) were at the intermediate level (average); and in writing, 100 (46.1%) were at the low level (poor).

Table 1. General characteristics of the subjects

Classification		N	%	
Age	20-29	107	49.3	
	30-39	84	38.7	
	40-	26	12.0	
Nationality	China	36	16.5	
	Philippine	25	11.5	
	Thailand	8	3.7	
	Vietnam	87	40.1	
	Cambodia	24	11.1	
	Other	37	17.1	
Marital status	Married	148	68.2	
	Single	69	31.8	
Length of residence in Korea	2 years ≥	74	34.1	
	3-5 years	51	23.5	
	6-9 years	46	21.2	
	10 years ≤	46	21.2	
Proficiency in Korean	Speaking	High (Good)	56	25.8
		Intermediate (Average)	94	43.3
		Low (Poor)	67	30.9
	Reading	High (Good)	39	18.0
		Intermediate (Average)	95	43.8
		Low (Poor)	83	38.2
	Writing	High (Good)	35	16.1
		Intermediate (Average)	82	37.8
		Low (Poor)	100	46.1
Total		217	100	

#### 3.2. Perception of oral health

For the perception of oral health, 118 persons (54.4%) responded that they considered after breakfast as a tooth-brushing time; 100 (46.1%), after lunch; and 106, after dinner (48.8%).

Like this, their tooth-brushing behavior after a meal was high, but only a few of them, 28 persons (12.9%) responded that they brushed teeth after having a snack. 116 persons (53.5%) responded that they had felt inconvenience because of a dental disease while 101 (46.5%) had not. To examine their interest in oral health, 72 persons (33.2%) responded that they were Very interested; 111 (51.2%), somewhat interested; and 34 (15.6%), not interested. Thus, their interest in oral health was above average.

Table 2. Perception of oral health

Classification		N	%
Tooth-brushing time*	Before breakfast	87	40.1
	After breakfast	118	54.4
	After lunch	100	46.1
	After dinner	106	48.8
	Before going to bed	107	49.3
	After having a snack	28	12.9
	Inconvenience from a dental disease	Yes	116
No		101	46.5
Interest in oral health	Very interested	72	33.2
	Somewhat interested	111	51.2
	Not interested	34	15.6
Total		217	100.0

\* Duplicate responses

### 3.3. Comparison of the levels of oral health behavior and functional oral health literacy according to general characteristics

By age group, the score of oral health behavior according to general characteristics was 4.42 points in those in the 30s; 3.45 in the 20s and 3.31 in those in their 40s and over. Thus, it was highest in those in the 30s. By nationality, it was 3.94 points in those with Vietnam as their nationality; 3.89 in those with China; and 3.88 in those with Thailand. By marital status, married women had 4.02 points, higher than unmarried women did. For oral health behavior according to the length of residence in Korea, those who stayed for 6-9 years had 4.46 points; those, for 3-5 years, 4.08; those, for over 10 years, 4.07 points; and those, for less than two years, 3.05. Oral health behaviors were lowest in those who stayed for less than two years. For proficiency in Korean, those at the intermediate level (average) in speaking had the highest oral health behaviors at 4.14 points, while those at the high level (good) had high oral health behaviors respectively at 4.67 and 4.54.

By age group, the score of functional oral health literacy according to general characteristics was 1.78 points in those aged 20-29; 1.87 in those aged 30-39; and 1.12 in those in the 40s and over. It was highest in those aged 30-39. By nationality, it was 2.00 points in those with the Philippines as their nationality; 1.97 in those with others; 1.88 in those with Thailand; 1.84 in those with Vietnam; 1.50 in those with Cambodia; and 1.17 in those with China. Functional oral health literacy was lowest in those with China as their nationality. By marital status, it was 1.57 points in married women and 2.07 in single women.

By the length of residence in Korea, it was 2.07 points in those who resided for more than 10 years; 1.72 in those who resided for 6-9 years; 1.57 in those who resided for 3-5 years; and 1.65 in those who resided for less than two years. Thus, the longer their length of residence, the higher their functional oral health literacy became. Functional oral health literacy according to proficiency in Korean was 2.36 points in those at the high level (good).

#### 4. Conclusions

In the perception of oral health, for tooth-brushing time, the subjects' tooth-brushing behavior after a meal was high, but the tooth-brushing after having a snack was low at 28 persons (12.9%). 116 respondents (53.5%) responded that they had felt inconvenience because of a dental disease, and for interest in oral health, 183 (84.4%) were interested above average.

In oral health behavior according to general characteristics, there were significant differences according to age, marital status, length of residence in Korea and proficiency in Korean ( $p < .05$ ,  $p < .005$ ,  $p < .001$ ), while in functional oral health literacy, there were significant differences according to age, marital status and proficiency in Korean ( $p < .05$ ,  $p < .001$ ).

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