

# Oral Health Knowledge among Private Primary School Teachers in Riyadh City, Kingdom of Saudi Arabia

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## Abstract

Oral health is fundamental to overall well-being, profoundly influences life, and impacts general health conditions. Teachers can play a key role in developing and executing oral-related preventive schemes. A cross-sectional survey was performed among 600 female private primary school teachers in Riyadh, KSA. Teachers were informed about the study by their school academic guidance. Informed consent was obtained from them before they answered the survey. The survey revealed that most (190) school teachers answered dental plaque is the staining of teeth (31.7%). One hundred sixty-eight (28%) teachers mentioned that dental plaque could cause dental caries, and 115 (19.2%) said that dental plaque leads to gum inflammation. The majority (482) of teachers (81.2%) visited the dentist every six months. In addition, teachers said that the Best way of cleaning teeth is 247 (41.2%) by brushing with toothpaste. Brushing prevents dental caries 531 (88.5%). Most school teachers brushed their teeth twice 60.5% (363) daily for one minute 38.2% (229). When enquired about brushing timing, most participants said they brushed their teeth before breakfast 383 (63.8%). The study results indicate poor oral health awareness among the primary educators in Riyadh, KSA; therefore, we need to improve oral health knowledge by improving the educational system program and providing demonstrations.

**Keywords:** Oral health, Knowledge, Education, Teachers, Private schools

## INTRODUCTION

Oral health is vital for general well-being and profoundly impacts life quality. It can affect general health conditions [1]. Children with a lower level of oral health are 12 times more likely to have more restricted-activity days, such as missing school, than those who do not. Because of oral diseases, more than 50 million hours are lost from school annually [2]. Several previous pieces of research have discovered that a shortage of information about oral health can enhance the chance of dental caries [3].

Oral health education can enhance the overall health of children, their families, and communities [3]. Teachers can play a key role in programming and implementing oral health preventive plans [4]. The bulk of emerging countries has primary school teachers with adequate awareness about oral health [4].

An educator is a vibrant strength of the school and carries an essential role in any educational organization [5]. The school teachers can affect most students and their parents by their opportunity and are a substantial source of the endorsement for using alternative staff to decrease avertible diseases such as oral conditions [6]. Moreover, teachers have the unique perspective of preparing children to be appropriately knowledgeable health care consumers and decision-makers [7, 8].

## Aim of the Research

To assess the knowledge about oral health among private primary school teachers in Riyadh City, Kingdom of Saudi Arabia.

## MATERIALS AND METHODS

### Study Method

Quantitative

### Study Design

A cross-sectional paper-based questionnaire survey.

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**How to cite this article:** Albisher GM, Alghamdi HM, AlAbbadi SH, Almukhyzim NI, Fayezi RAA, Alamrani HA, et al. Oral Health Knowledge among Private Primary School Teachers in Riyadh City, Kingdom of Saudi Arabia. Arch Pharm Pract. 2021;12(3):121-4. <https://doi.org/10.51847/THjZmuQXOb>

### Study Population

Female Private Primary School Teachers in Riyadh City, KSA

### Sample Size

Using an online Raosoft® sample size calculator will calculate sample size calculation.

### Sample Selection

Stratified Random Sampling and sample collection will be after obtaining the ethical and IRB approval from RCsDP.

### Informed Consent

The participants will give informed consent before answering the survey.

### Statistics

The quantitative data will be entered into the computer to be analyzed by Statistical Package for Social Science (SPSS) Version 20 for Windows.

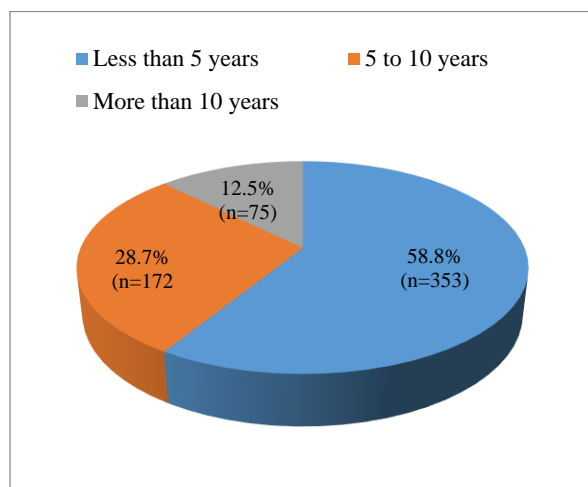
The descriptive analysis will present an overview of the results.

Chi-square and cross-tabulations tests will investigate differences between groups.

The significance level will be set at  $p \leq 0.05$ .

## RESULTS AND DISCUSSION

Findings of this study revealed that 28.7% of the participants had work experience of 5 to 10 years (**Figure 1**). **Table 1** shows the teacher's knowledge of prevention of oral diseases with their responses presented in frequencies. Frequency, duration and timing of teeth brushing has been illustrated in **Figure 2**. Whereas the **Table 3** has categorized the school teachers according to their experience and the level of knowledge has been illustrated accordingly.



**Figure 1.** Experience of female school teachers

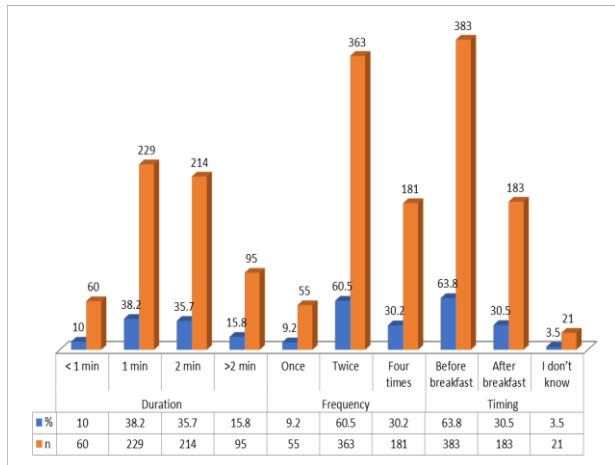
**Table 1.** Teacher's knowledge of causes of dental caries

Items	Responses	n	%
What is dental plaque?	Did not answer	10	1.7
	Soft debris on the tooth	141	23.5
	Staining of teeth	190	31.7
	Hard Debris on the tooth	127	21.2
	I don't know	132	22
What does dental plaque lead to?	Total	600	100
	Did not answer	25	4.2
	Inflammation of gum	115	19.2
	Staining of teeth	158	26.3
	Dental caries	168	28
Does sweet affect dental health?	I don't know	134	22.3
	Total	600	100
	Did not answer	4	0.7
	Yes	570	95.2
	No	6	1
Do soft drinks affect dental health?	Don't know	20	3.1
	Total	599	100
	Did not answer	3	0.5
	Yes	571	95.2
	No	13	2.2
Do soft drinks affect dental health?	Don't know	13	2.2
	Total	600	100

**Table 2.** Teacher's knowledge of prevention of oral diseases

The best method for the prevention of dental caries?	Did not answer	33	5.5
	Limiting sugary snacks and brushing teeth	401	66.8
	Using fluoridated water and dental products with fluoride as toothpaste	132	22
	Don't know	34	5.7
	Total	600	100
How often should you go to the dentist?	Did not answer	8	1.3
	Every 12 months	77	12.8
	Every 6 months	482	80.3
	When in pain, only	33	5.5
	Total	600	100
What is the best way for cleaning teeth	Did not answer	106	17.5
	Brush with toothpaste	247	41.2
	Dental floss	75	12.5
	Mouthwash	24	4
	Miswak	148	24.7
Do brushing teeth prevent dental caries?	Total	600	100
	Did not answer	2	0.4
	Yes	531	88.5
	No	44	7.3
	Don't know	23	3.8
Do brushing teeth prevent dental caries?	Total	600	100

Using fluoride strengthens the teeth?	Did not answer	8	1.3
	Yes	359	59.8
	No	73	12.2
	Don't know	160	26.7
	Total	600	100



**Figure 2.** Frequency, Duration and Timing of Teeth Brushing

Experience	Mean	SD	F	p
Less than 5 years	3.17	1.36	1.375	0.204
5 to 10 years	3.19	1.37		
More than 10 years	2.75	1.15		
Total	3.12	1.34		

**Table 3.** Categorize of Oral Health Knowledge and Experience of Teachers

Categorize of knowledge	Poor		Fair		Good	
	n	%	n	%	n	%
Less than 5 years	218	57.7	133	60.5	2	100
5 to 10 years	99	26.2	73	33.2	0	0.0
More than 10 years	61	16.1	14	6.4	0	0.0
Total	378	100	220	100	2	100

School teachers play an important positive influence on the students.

Primary school teachers are a significant resource in implementing school-based prevention recommendations. The number of primary school teachers is approximately 31 million worldwide, and teachers have many advantages over dental professionals if they have adequate knowledge of oral health [9].

The current study has delivered rudimentary evidence about awareness of oral health and its sources among designated primary schools in Riyadh City, Kingdom of Saudi Arabia, and a sample size of 600 female primary school teachers.

Most of the school teachers, 353 (58.8%), had less than 5 years of experience, followed by 172 (28.7%) 5-10 years and 75 (12.5%) who had more than 10 years of experience (**Figure 1**). Regarding questions about plaque, only 141 (23.5%) educators answered appropriately by replying that plaque refers to the soft debris on teeth. Most of the school teachers answered dental plaque is staining of teeth 190 (31.7%). 28% (168) of teachers mentioned that dental plaque leads to dental caries, and 115 (19.2%) said that dental plaque leads to gum inflammation (**Table 1**).

The query regarding the cleaning methods in the Al-Kharj study showed that 79.6% thought of using toothbrushes and toothpaste, while 45.4% used only Miswak for cleaning their teeth [10]. In the present study, according to the findings, 247 (41.2%) participants felt that using toothbrushes and toothpaste was the best way; however, 148 (24.7%) believed that using miswak, 75 (12.5%) thought that using dental floss, and only 24 (4%) thought that using mouthwash was useful for cleaning their teeth.

The majority (531) of the educators (88.5%) had a reasonable awareness of the importance of brushing teeth to prevent dental caries (**Table 2**). Most (401) teachers (66.8%) said that the best method for preventing dental caries is limiting sugary snacks and brushing teeth. In contrast, other 132 (22%) said that fluoridated water and dental products with fluoride as toothpaste is the best method. In the Rawalpindi-based study, only 38 (21.6%) private primary school teachers conducted routine dental examinations every 6 months without the dental disease [11]. While in our study, 482 (80.3%) of the teachers think you should visit the dentist every 6 months. Most school teachers showed poor 378 (63%) oral health knowledge.

### CONCLUSION

The study results indicate poor oral health knowledge among primary school teachers in Riyadh, Saudi Arabia. Therefore, we need to enhance oral health awareness by improving the educational system program and demonstrating.

**ACKNOWLEDGMENTS:** Authors of this study would like to acknowledge the support and cooperation of the research center of Riyadh Elm University.

**CONFLICT OF INTEREST:** None

**FINANCIAL SUPPORT:** None

**ETHICS STATEMENT:** This study fulfilled all the ethical requirements including data collection and confidentiality of study participants.

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