

# Caries and Periodontal Experience among 998 Priests and Novices in Bangkok

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**Objective:** The present study was cross-sectional survey aiming to describe oral health status in terms of caries and periodontal experience and oral health behavior of 998 priests in Bangkok.

**Material and Method:** The 998 priests, aged 12-92, from 28 temples in Bangkok were clinically examined at Priest Hospital using WHO methodology. Information on oral health behavior was obtained via questionnaires.

**Results:** The prevalence and level of caries increased with ages. Overall, 89.5% had evidences of caries experience; 71.5% were related to untreated caries. The average DMFT score was 7.4 (DT=2.9, MT=3.2, FT=1.2). About 72.9% needed 1-surface filling and 45.6% needed extraction. Similarly, gingivitis was highly prevalent for all age groups, with 73.4% having calculus. About 12.7% had periodontal pockets. However, the highest prevalence of periodontitis belonged to the 55-64-year-old priest at 41.4%. Tooth loss was dramatically prevalent among the elderly over 65. Even though most participating priests had high evidences of caries and periodontal problems, only 57.7% perceived their own problems. The first and second common problems were calculus and food retention, at 48.9 and 44.1, respectively. With respect to level of education, priests who completed their education from primary school or lower had significantly higher number of DT, MT and DMFT and lower number of FT than the group with higher education ( $p < 0.05$ ). Similarly, non-smokers had lower mean of MT, DMFT and prevalence of score 3 and score 4 than past smokers and current smokers ( $p < 0.05$ ).

**Conclusion:** Most priests in the 28 participating temples still had unmet needs on dental services. Not only providing more access to dental services, the continuous implementation of community based oral health promotion and prevention, emphasizing related risks which needed to improved oral healthcare of the priests to limit oral health burdens in the future.

**Keywords:** Oral health, DMFT, CPITN, Priest, Education, Smoker

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Oral health means more than good teeth. It is integral to general health and essential for well-being. Poor oral health qualifies as major public health problems owing to their high prevalence and incidence in all regions of the world. Their impact is on individuals and communities, as a result of pain and suffering, impairment of function and reduced quality of life<sup>(1)</sup>. Furthermore, poor oral health can restrict activities at school, at work and at home causing millions of school

and work hours to be lost each year throughout the world<sup>(2)</sup>. As for all diseases, the greatest burden of oral diseases is on disadvantaged and socially marginalized population<sup>(1,2)</sup>.

Basic oral health survey has been carried out worldwide with an aim for estimation of the present oral health status of a population and its future needs for oral health care<sup>(2,3)</sup>. According to World Health Organization, the most important global oral health burdens have been dental caries and periodontal diseases<sup>(3)</sup>. Dental caries affect 60-90% of school-aged children and the vast majority of adults. Most children and adolescents worldwide have signs of gingivitis.

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Severe periodontitis is found in 5-20% of most adult population worldwide<sup>(2)</sup>.

In Thailand, oral health data is collected from the national oral health survey, conducted regularly every 5-6 years since 1984 by Dental Health Division, Department of Health<sup>(4-6)</sup>. Over two decades, the evidences show that there is an increasing trend of dental caries among children and that of gingivitis in children and adolescent. In contrast, there is a decline trend of prevalence of periodontitis in adult and the elderly. Consequently, the percentage of people with 20 natural teeth and more goes up and that with edentulousness goes down<sup>(4)</sup>. Factors relating to caries status included problems of awareness of oral health, higher sugar consumption, inappropriate child feeding, and limitation of access to dental services<sup>(5)</sup>. Similarly, oral hygiene practice, smoking habit and systemic disease were considered as the related factors of periodontal diseases in Thais<sup>(6)</sup>.

To date, there is no information on the oral health of priests in Thailand. The objective of the present study was to describe the caries and periodontal experiences and some oral health behavior of participating priests in 28 temples which are acting as Priest Master committee of Priest Hospital (PH).

## Material and Method

Volunteered priests from 28 temples which are acting as Priest Master of Priest Hospital (PH) were included in the study as a part of the Sustained and Holistic Health Care Program for the priests Commemoration of His Majesty the King's 60 years Accession to the Throne (First phase) between February 17 and June 29, 2006. Basic oral health surveys according to World Health Organization (WHO) criteria were used to collect information about the oral health status and treatment needs of participated priests. The dental examinations were carried out by ten dentists, who received information and guidelines on WHO criteria for recording caries experience and periodontal status. Each priest was also asked to complete a short questionnaire which included level of education, tobacco usage, self-perception of oral health, oral hygiene practice and utilization of oral health services. Dental personnel were at hand to assist with completion of the questionnaire if needed. After the examination, explanation of the subject's oral health condition, educational leaflet, and oral health self-care kit were given to the participated priests.

Then, data were analyzed according to WHO standard age groups by using SPSS version13.

Association between variables was assessed by ANOVA. The level of significant was set at 0.05.

## Results

According to the sustained and holistic health care program (First phase), totally 1,122 priests attended the program. Of these, 121 did not participate in an oral health survey program and another three were excluded

**Table 1.** Distribution of sociodemographic characteristics

		Number	Percent
Gender	Male	998	100
	Female	0	0
Age	12-14	93	9.3
	15-19	186	18.6
	20-24	160	16.0
	25-29	109	10.9
	30-34	88	8.8
	35-44	118	11.8
	45-54	76	7.6
	55-64	71	7.1
	65-74	55	5.5
Level of education	75 and more	42	4.2
	Below Primary school	287	29.0
	Secondary school	398	40.2
	Diploma and more	304	30.7
	None	0	0
Tobacco usage	Non-smoker	687	69.5
	Past smoker	163	16.5
	Current smoker	139	14.1
Self-perception of oral health	Have oral problem	562	57.7
	Do not have oral problem	202	20.7
	Do not know	210	21.6
Most common oral problems	Calculus	466	48.9
	Food retention	420	44.1
	Halitosis	323	33.9
Frequency of dental visit	Never or less than once a year	336	48.1
	Once a year	148	21.2
	Twice a year	93	13.3
	More than twice a year	120	17.2
Place of dental visit	Private dental practice	265	36.3
	PH	258	35.3
	Other public hospital	157	21.5
	Mobile service at temple	50	6.8
Oral hygiene practice	Toothbrush	952	96.3
	Mouthrinse	235	23.8
	Toothpick	216	21.8
	Proxabrush	86	8.7
	Dental floss	80	8.1
	None	4	0.4

because they were under 12 years old which was an expected age to have all permanent teeth, except third molar, erupted. Therefore, 998 (88.9%) participated in dental examination and questionnaires. The age ranged from 12 to 92 years, averaged at 33.3 years with standard deviation (sd) of 8.7. The average number of teeth present was 27.8 teeth per person. The number of priests with edentulousness was 21. According to Table 1, about 69.2% of participated priests graduated from secondary school or lower. About a third (30.6%) reported their own smoking experience. Past smoker

accounted for 16.5% and about 14.1% currently were smokers.

In terms of oral health behavior, just above half (57.7%) of participated priests were aware of their own oral health problems. The first and second common problems were calculus and food retention, with 48.9% and 44.1% respectively. Half (51.7%) of the participants visited dentists at least once a year. The chosen dental offices were private dental offices (36.3%), PH (35.3%), and other public hospitals (21.5%). Regarding oral hygiene practice, almost participants (96.3%) used toothbrush, 21.8% used toothpick and only 8.1% used dental floss.

**Table 2.** Caries and periodontal experiences by age-groups

Category Age range	DT	MT	FT	DMFT (sd)	% of having periodontal pocket
12-14	3.6	0.2	0.4	4.2 (3.6)	0.0
15-19	3.5	0.3	0.5	4.3 (3.8)	4.3
20-24	2.9	0.9	1.2	5.1 (4.4)	4.4
25-29	3.3	1.3	0.9	5.4 (4.3)	9.2
30-34	2.5	1.6	1.5	5.7 (5.0)	13.6
35-44	2.7	2.3	2.3	7.2 (5.4)	18.6
45-54	2.3	4.9	2.4	9.5 (7.6)	25.0
55-64	2.6	8.0	1.2	11.8 (8.9)	42.3
65-74	1.8	13.4	1.8	17.0 (9.7)	21.8
75 and more	3.1	17.6	0.7	21.3 (10.3)	16.7

### *Caries experiences*

The caries experiences were measured in terms of prevalence, level of caries and its treatment needs. The level or severity of dental caries was measured by the decayed teeth (DT), Missing teeth (MT) and filled teeth (FT) index (DMFT score). Overall, dental caries affected 89.5% of participating priests and 71.5% have not received treatment yet. The prevalence of novices aged 12-14 years old with DT was 86%. Fig.1 illustrated the changing level of the prevalence of priests with caries experience, DT, MT and FT by age group. While the percentage of priests with DT decreased with ages, those experienced MT increased continuously up to 100% at the age of 75 and over and just 19.4-50.4% experienced FT.

According to Table 2, the average DMFT of priests in 28 temples was 7.4 (sd 7.3), consisting of 2.9

**Table 3.** Caries and periodontal experiences by level of education and smoking habits

Category	Number	DT	MT	FT	DMFT (sd)	% of having periodontal pocket
Level of education						
Below Primary school	287	3.3**	4.5*	0.8	8.6 (8.7)*	15.7
Secondary school	436	3	2.7	1.1	6.8 (6.8)	10.6
Diploma and more	266	2.5	2.5	1.9*	6.9 (6.1)	12.4
Total	989	2.9	3.2	1.2	7.3 (7.3)	12.5
Smoking habits						
Non-smoker	687	3.0	2.1*	1.3	6.3 (6.1)*	9.6*
Past smoker	163	2.5	6.3	1.4	10.2 (9.9)	19.0
Current smoker	139	3.3	4.7	0.8	8.8 (7.8)	20.9
Total	989	2.9	3.2	1.2	7.3 (7.3)	12.7

\* The mean difference is significant at the p 0.05 level

\*\* The mean difference is significant at the p 0.05 level between those below primary school and those had diploma and more

DT, 3.2 MT, and 1.2 FT. Table 3 and Fig.2 illustrated the component of DMFT by age groups. Similar to the prevalence, DMFT score increased with ages and the main contributing component to the score varied among age groups. While the youth (12-19 yrs.) had the greater proportion of DT than others, that of MT belonged to the elderly aged above 65. For the proportion of FT, the adult aged 35-44 had the highest one.

Based on level of education in Table 3, priests who completed their education from primary school or lower had significantly number of DT, MT and DMFT higher than the group with higher education ( $p < 0.05$ ). On the other hand, priests who graduated diploma/degree or more had significantly greater number of FT than the group with lower education ( $p < 0.05$ ). Similarly, non-smokers had lower mean of MT and DMFT score than past smokers and current smokers ( $p < 0.05$ ).

In terms of treatment needs, most (72.9%) required 1-surface filling at 2.9 teeth per person (Table 4).

### Periodontal experiences

Periodontal experience in the present study was measured by the Community Periodontal Index of Treatment Needs (CPITN score) Fig. 3. illustrated the CPITN data as expressed in mean percentages of individuals with maximal CPITN scores. Overall, it was found that score 2 (calculus) was the most frequent in all ages with average at 73.4%. The prevalence of score 3 was first seen among the priest aged 15-19 and increased with ages. The mean percentage of score 3 was 7.1%. The prevalence of priests with score 4 was first detected among the priests aged 20-24 and this figure was found highest among the priest aged 55-64. The average percentage of score 4 was 5.6%. Missing score (score 9) was used when there were fewer than two functioning teeth present in a sextant.

Based on tobacco usage, non-smoking priests had lower prevalence of score 3 and score 4 than past-smoker and current smoker significantly ( $p < 0.05$ ). There was no significant difference between prevalence of having pockets and level of education.

**Table 4.** Treatment needs for dental caries

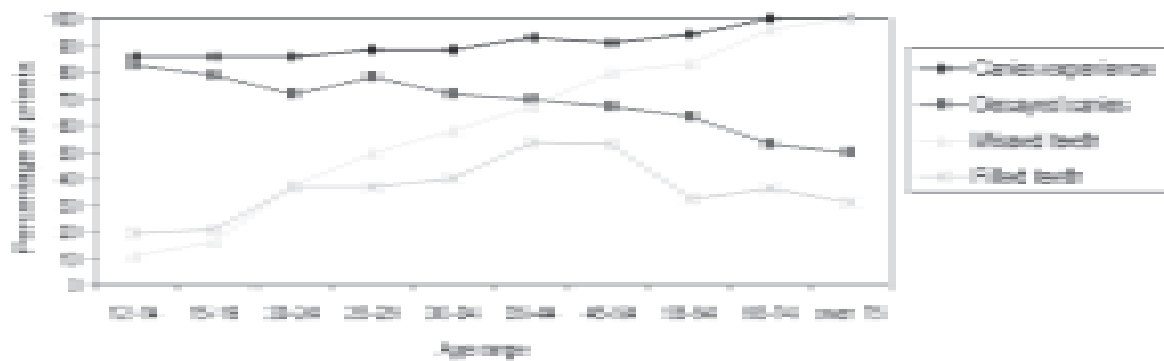
Treatment need	Prevalence of need	Number of affected teeth per subject
One-surface filling	72.9%	2.9
Two-surface filling	37.6%	0.9
Root canal treatment	6.6%	0.1
Extraction	45.6%	1.2
Crown	1.7%	0.02

### Discussion

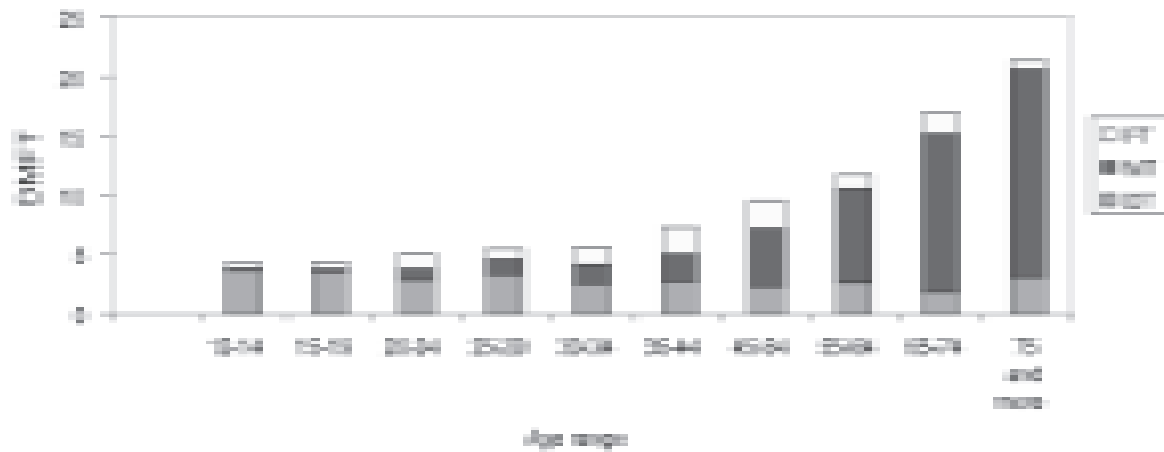
The purpose of the present study was to describe the caries and periodontal experience and some oral health behavior of priests in 28-Sangha-committee temples of PH. The dental examination, recommended by WHO, was used in the present study. However, an examination under clinical setting as in the present study could result in an overestimated data, compared to an examination under daylight of the other studies<sup>(3,4)</sup>. In the present study, random sampling was not possible due to being a part of the health care program for the

**Table 5.** Comparison of the oral health status between the present study and the Thailand oral health survey 2000-1

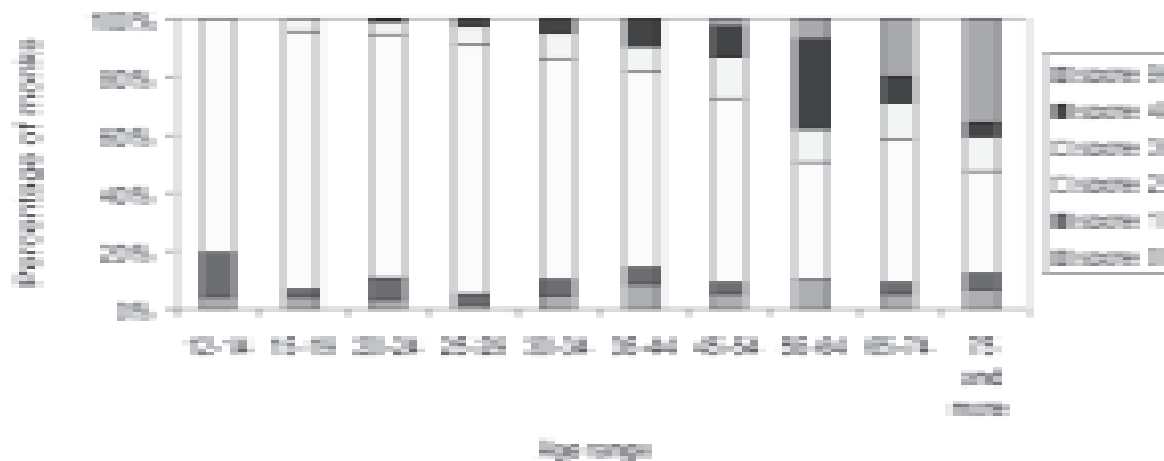
Age range	Location	mean no. of teeth present	DT	MT	FT	DMFT	DT/DMFT	Care index FT/DMFT	Treatment index (MT+FT)/DMFT	% of having periodontal pocket
12	Thailand	25.0	1.1	0.1	0.4	1.6	68.8%	25.0%	31.3%	0.0
12	Bangkok	24.0	1.4	0.1	0.5	2.0	70.0%	25.0%	30.0%	0.0
12-14	Priest H.	28.9	3.6	0.2	0.4	4.2	85.7%	9.5%	14.3%	0.0
35-44	Thailand	28.2	1.9	3.6	0.7	6.1	31.6%	11.5%	70.5%	37.3
35-44	Bangkok	26.5	2.4	4.8	1.6	8.8	27.3%	18.2%	72.7%	20.6
35-44	Priest H.	29.5	2.7	2.3	2.3	7.2	37.5%	31.9%	63.9%	18.6
60-74	Thailand	19.6	2.1	12.2	0.1	14.4	14.9%	0.7%	85.4%	61.6
60-74	Bangkok	15.2	2.2	16.0	0.4	18.5	11.9%	2.2%	88.7%	40.9
65-74	Priest H.	18.13	1.8	13.4	1.8	17.0	10.6%	10.6%	89.4%	21.8



**Fig. 1** Changing levels of percentage of priests with Caries experience, Decayed teeth, Missed teeth and Filled teeth by age group



**Fig. 2** Level of dental caries (DMFT score) of participated priests by age group



**Fig. 3** Mean percentages of maximal CPI score in 12-92 years old by age groups

priests commemoration of His Majesty the King's 60 years accession to the throne (First phase) and lack of valid population of priest registered. Therefore, 1,122 priests volunteered and the participation rate, based on 28 temples, was 45.17%. Of these, 998 priests (88.9%) joined the oral health program.

### ***Caries experiences***

Dental caries was still an oral health problem in the present study as dental caries affected 89.5% of participated priests with the mean DMFT score at 7.4 (Table 2). The figure was lower than 8.5 of DMFT of 18-85-year-old indigenous people in a survey carried out in Western Australia<sup>(7)</sup>. Similar to the previous studies<sup>(8)</sup>, the prevalence and level of caries increased with ages (Fig. 1, 2, Table 3). The proportion of DT was very high since novice aged 12. Among the adult and elderly, it decreased with higher proportion of FT and MT. However, most treatment received appeared to be an extraction. This could imply problems of unawareness of oral health and the limited access to dental services, particularly restoration, of the priests.

Compared with the Fifth National Oral Health Survey in 2000-2001<sup>(4)</sup>, the available data from Table 5 revealed that DMFT of 12-14-year-old novices in the present study was much worse than DMFT of 12-year-old Bangkokian and Thai children. While the mean DMFT of novices aged 12-14 years old was 4.2, those of 12-year-old Bangkokian and Thai children valued of 2.0 and 1.6. Besides, novices also had higher proportion of DT with much lower care and treatment index than Bangkokian and Thais children. On the contrary, among adult aged 35-44, DMFT of the Bangkokian adult was 8.8 and that of Thais was 6.1. This was comparable with the figure of 35-44 year-old priest which was 7.2. Among the elderly, DMFT valued of 14.4, 18.5 and 17.0 for Thais, Bangkokian and the elderly priest, respectively. For both the adult and the elderly groups, DMFT of the present study were between those of the Bangkokian and the Thai people. However, the adult and the elderly priests appeared to have greater proportion of FT than ordinary Bangkokian or Thais.

The reason for much worse number of DT among participated priests, particularly novices (2.6-fold increase) might be explained by monkhood's lifestyle. While the data showed that 71.5% of the whole subjects had untreated caries and only 5.0% did not required periodontal treatment, only 57.7% reported their own oral health problem. Among novices aged 12-14, only 23.7% of novices aged 12-14 years old self-reported as having oral health problem. This was in

agreement with the study of Srisuda<sup>(5)</sup>, reporting that unawareness of one's own oral problem was one of factors relating to dental caries status in Thais. In addition, the lifestyle with no parents, questionable standard of toothbrush or self-care kit, rushed hours before early morning *bintabaat* or alms-gathering and drinking only *Pana* or *Atthapana* which belongs to an after-lunch-beverage consisting of fruit juice, cane juice, sugar, aerated water or soft drinks and honey would possibly put novices or even priests at risk of dental caries.

### ***Periodontal experience***

The result revealed that only 5.0% of 998 priests required no periodontal treatment (CPITN = 0). The most prevalent score (73.4%) among priests in 28 temples was score 2, which primarily reflected poor oral hygiene. Fig. 3 revealed that the prevalence of having periodontal pockets was seen first among the youth and young adults. The figure increased continuously to 41.3% for score 3 and 4, and 31.0% for only score 4 among the priest aged 55-64. Consequently, the figure of score 4 switched to score 9 at the age of 65 and over. This would imply an existence and progression of chronic disease over a number of years and its end as an extraction among the elderly after 65. This was in agreement with the previous study stating that the major reasons for tooth loss among the elderly were severe dental caries and periodontal disease<sup>(9)</sup>.

There was some epidemiological study reported the prevalence of severe periodontitis in open population was 11-15% in both developed and developing countries<sup>(10,11)</sup>. Overall, the 12.7% of participating priests was comparable with the previous study. According to the national oral health survey, 1.1% of the youth aged 15 years old had evidences of periodontitis (no data shown). Similarly, the study of Albander *et al* revealed that about 2% of the youth had aggressive or severe periodontitis that could lead to premature tooth loss<sup>(12)</sup>. These were lower than 4.3% of the youth (15-19 years old) found in the present study. These could reflect the poorer periodontal experience among the youth in the present study. Among the adult and the elderly, the prevalence of having shallow or deep periodontal pockets was 18.6% and 21.8%, respectively. The figure seemed low compared to the other studies. The percentage of adult Bangkokian with periodontal pocket was 20.6% and 40.9% among adult aged 35-44 and the elderly aged 60-74, respectively (Table 5). Another study in Southern Thailand revealed that 100% of 50-59 years old had



prevalence of periodontitis<sup>(13)</sup>.

With respect to level of education, priests who completed their education from primary school or lower had significant number of DT, MT and DMFT higher than the group with higher education ( $p < 0.05$ ). On the other hand, priests who graduated Diploma/ Degree or more had a significantly greater number of FT than the group with lower education ( $p < 0.05$ ). The result was concurred with findings of Brennan 2007 which reported that middle-aged-people with diploma/degree had fewer MT and DMFT<sup>(14)</sup>. Similarly, people with lower education had significantly a larger number of MT than people in higher education<sup>(1,15,16)</sup>. There was no association between level of education and prevalence of periodontitis in the present study. Contrary to the findings of the other researchers, reporting an association between periodontal status and educational level<sup>(8,16)</sup>. However, education level was used in the present study and the others were an academic level which may be irrelevant to the priest whose studies were major in the Dhamma aspect.

Regarding smoking experience, the present study showed that about 16.5% was past smoker and 14.1 were current smoker. Smoking was recognized as being detrimental to oral health<sup>(1,17,18)</sup>. It was associated with alveolar bone loss and tooth loss even when researchers control oral hygiene and other socio-demographic and behavioral factors<sup>(19-21)</sup>. In some industrialized countries studies have shown that use of tobacco accounts for more than half of periodontitis cases in adults<sup>(22)</sup>. This concurred with the present study which observed that non-smokers had lower mean of MT, DMFT score and prevalence of score 3 and score 4 than past smokers and current smokers ( $p < 0.05$ ). The past smoker revealed the higher MT, DMFT and a little lower prevalence of having periodontal pockets than those of current smoker. However, these differences were not statistically significant. Compared with the previous studies, current smokers had the higher number of missing teeth and percentage of having periodontal pockets than former smokers<sup>(21)</sup>. Another researcher also reported that an individual risk of MT was decreased by approximately 20% within 12 years of quitting, compared with that of continuous smokers<sup>(19)</sup>. The non-agreeable data may be explained in the present study because it relied on smoking habit data provided by subjects' own reporting. This could have resulted in under-estimated data.

### Management

Oral diseases were not self-limited or self

managed by one's own. Once someone was affected, treatment was required from dental professions. If left untreated even for a short period of time, oral diseases can have adverse consequences and profound effects on the quality of life in terms of experience of pain, endurance of dental abscesses, problems with eating and chewing, embarrassment about the shape of teeth or about missing, discolored or damaged teeth can adversely affect people's daily lives and well-being<sup>(2)</sup>. In addition, oral infection has been considered as a risk factor in a number of general health conditions<sup>(1)</sup>. Therefore, the need for oral health care which was evident for all age groups should not be ignored by individuals and also health policy maker.

However, from public health point of view, it seemed unrealistic to control oral disease, by traditional curative strategies only. Therefore, increasing access to unmet dental care and factors relating to oral diseases should be managed by raising individual awareness on oral health to manage diseases as early as possible. Diet counseling in dental practices and raising public awareness of offering proper meal for priests may be vital to prevent and control dental caries among priests as well as novices. Regarding periodontal experience, high prevalence of gingivitis and low prevalent of periodontitis were preventable, primarily through proper oral hygiene and improved self-care practices. To prevent the progression of gingivitis to periodontitis, emphasizing oral health care practices, increasing more access to professional cleaning should be in consideration because it was quite clear that having plaque and calculus are established risk factors for periodontal disease<sup>(23,24)</sup>. Smoking cessation should be supported because it benefited significantly an individual's likelihood of tooth retention and it may be associated with a relatively rapid improvement in the periodontium<sup>(18,25)</sup>. In addition, sharing common risk approach to manage oral and general health problems together would be the most cost-effective way to control/reduce its consequences to each other and improve oral health of priests in a long run<sup>(1,2)</sup>.

### Conclusion

The results of this study provide baseline information on the oral health of priests in 28 temples of Priest master of Priest Hospital. About 71.5% had untreated caries. 73.4% had calculus that primarily reflected poor oral hygiene and needed to be removed. 12.7% had signs of periodontitis. The need for oral healthcare was evident for all groups particularly novices. Therefore, not only was more access provided

to dental services, with the continuous implementation of community-based oral health promotion and prevention, but also there is a need for emphasis on related risks to limit oral health burdens in the future.

## References

- Petersen PE. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century—the approach of the WHO Global Oral Health Programme. *Community Dent Oral Epidemiol* 2003; 31(Suppl 1): 3-23.
- Petersen PE, Bourgeois D, Ogawa H, Estupinan-Day S, Ndiaye C. The global burden of oral diseases and risks to oral health. *Bull World Health Organ* 2005; 83: 661-9.
- World Health Organization. Oral health surveys: basic methods. 4<sup>th</sup> ed. Geneva: WHO; 1997.
- Dental Health Division, Department of Health. Report of the Fifth national oral health survey in Thailand in 2000-01. Nonthaburi: Ministry of Public Health, 2003 (In Thai).
- Leelasithorn S, Prasertsom P, Rityoue A, Rattanasimsa K. Caries prevalence and related factors in Thailand 1983-1997. *Thai J Dent Pub Health* 2001; 6: 7-24. (In Thai)
- Prasertsom P, Leelasithorn S, Jirapongsa W. Periodontal status and related factors in Thais during 1983-1997. *Thai J Dent Pub Health* 2001; 6: 25-44. (In Thai)
- Smith K, Kruger E, Dyson K, Tennant M. Oral health in rural and remote Western Australian indigenous communities: a two-year retrospective analysis of 999 people. *Int Dent J* 2007; 57: 93-9.
- Radnai M, Gorzo I, Nagy E, Urban E, Eller J, Novak T, et al. The oral health status of postpartum mothers in South-East Hungary. *Community Dent Health* 2007; 24: 111-6.
- Shimazaki Y, Soh I, Koga T, Miyazaki H, Takehara T. Risk factors for tooth loss in the institutionalised elderly; a six-year cohort study. *Community Dent Health* 2003; 20: 123-7.
- Albandar JM, Brunelle JA, Kingman A. Destructive periodontal disease in adults 30 years of age and older in the United States, 1988-1994. *J Periodontol* 1999; 70: 13-29.
- Taani DS. Oral health in Jordan. *Int Dent J* 2004; 54: 395-400.
- Albandar JM, Brown LJ, Loe H. Clinical features of early-onset periodontitis. *J Am Dent Assoc* 1997; 128: 1393-9.
- Baelum V, Pisuithanakan S, Teanpaisan R, Pithpornchaiyakul W, Pongpaisal S, Papapanou PN, et al. Periodontal conditions among adults in Southern Thailand. *J Periodontol* 2003; 38: 156-63.
- Brennan DS, Spencer AJ, Roberts-Thomson KF. Caries experience among 45-54 year olds in Adelaide, South Australia. *Aust Dent J* 2007; 52: 122-7.
- Schou L. Oral health, oral health care, and oral health promotion among older adults: social and behavioral dimensions. In: Cohen LK, Gift HC, editors. *Disease prevention and oral health promotion*. Copenhagen: Munksgaard; 1995.
- Paulander J, Axelsson P, Lindhe J. Association between level of education and oral health status in 35-, 50-, 65- and 75-year-olds. *J Clin Periodontol* 2003; 30: 697-704.
- Machuca G, Rosales I, Lacalle JR, Machuca C, Bullon P. Effect of cigarette smoking on periodontal status of healthy young adults. *J Periodontol* 2000; 71: 73-8.
- Bergstrom J, Eliasson S, Dock J. A 10-year prospective study of tobacco smoking and periodontal health. *J Periodontol* 2000; 71: 1338-47.
- Krall EA, Dawson-Hughes B, Garvey AJ, Garcia RI. Smoking, smoking cessation, and tooth loss. *J Dent Res* 1997; 76: 1653-9.
- Krall EA, Garvey AJ, Garcia RI. Alveolar bone loss and tooth loss in male cigar and pipe smokers. *J Am Dent Assoc* 1999; 130: 57-64.
- Albandar JM, Streckfus CF, Adesanya MR, Winn DM. Cigar, pipe, and cigarette smoking as risk factors for periodontal disease and tooth loss. *J Periodontol* 2000; 71: 1874-81.
- Tomar SL, Asma S. Smoking-attributable periodontitis in the United States: findings from NHANES III. National Health and Nutrition Examination Survey. *J Periodontol* 2000; 71: 743-51.
- Abdellatif HM, Burt BA. An epidemiological investigation into the relative importance of age and oral hygiene status as determinants of periodontitis. *J Dent Res* 1987; 66: 13-8.
- Page RC, Krall EA, Martin J, Mancil L, Garcia RI. Validity and accuracy of a risk calculator in predicting periodontal disease. *J Am Dent Assoc* 2002; 133: 569-76.
- Thomson WM, Broadbent JM, Welch D, Beck JD, Poulton R. Cigarette smoking and periodontal disease among 32-year-olds: a prospective study of a representative birth cohort. *J Clin Periodontol* 2007; 34: 828-34.



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## สภาวะโรคฟันผุและปริทันต์ของพระสงฆ์ สามเณรในกรุงเทพมหานคร

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**วัตถุประสงค์:** เพื่อให้ได้ข้อมูลสภาวะทันตสุขภาพในแง่ของสภาวะโรคฟันผุ, สภาวะปริทันต์ และ พฤติกรรมด้านสุขภาพช่องปากของพระสงฆ์และสามเณร จำนวน 998 รูป ในกรุงเทพมหานคร

**วัสดุและวิธีการ:** พระสงฆ์และสามเณรจำนวน 998 รูป อายุ 12-92 ปี จาก 28 วัด ในกรุงเทพมหานคร ได้รับการตรวจสุขภาพช่องปากโดยทันตแพทย์ตามเกณฑ์การวินิจฉัยโรคขององค์การอนามัยโลก และตอบแบบสอบถามด้วยตนเองเกี่ยวกับข้อมูลทั่วไปและพฤติกรรมด้านสุขภาพช่องปาก

**ผลการศึกษา:** ความชุกและความรุนแรงของโรคฟันผุของกลุ่มตัวอย่างเพิ่มตามอายุ โดยเฉลี่ยพบว่าร้อยละ 89.5 มีประสบการณ์โรคฟันผุ และ ร้อยละ 71.5 เป็นฟันผุที่ยังไม่ได้รับการรักษา ค่าเฉลี่ยผุอุดถอน (DMFT) เท่ากับ 7.4 ซึ่งต่อคน โดยเป็นสัดส่วนของฟันผุที่ยังไม่ได้รับการรักษา 2.9 ซึ่ง, ฟันถอนไปแล้ว 3.2 ซึ่ง และ ฟันที่ได้รับการอุดแล้ว 1.2 ซึ่ง จากกลุ่มตัวอย่างทั้งหมดพบว่าร้อยละ 72.9 มีความจำเป็นต้องได้รับการรักษาโดยการการอุดฟันหนึ่งด้าน และ ร้อยละ 45.6 จำเป็นต้องได้รับการถอนฟัน ในแง่ของสภาวะปริทันต์ พบว่า ร้อยละ 73.9 มีหินปูน และ ร้อยละ 12.7 มีโรคปริทันต์ อย่างไรก็ตามพบว่าพระสงฆ์อายุ 55-64 ปีเป็นโรคปริทันต์ถึงร้อยละ 41.4 และสอดคล้องกับการพบว่ากลุ่มพระสงฆ์อายุมากกว่า 65 ปีมีสัดส่วนของการสูญเสียฟันมากกว่ากลุ่มอายุอื่น ถึงแม้ว่าจะพบว่ากลุ่มตัวอย่างมีปัญหาช่องปากในอัตราที่สูง แต่เพียงร้อยละ 57.7 รายงานว่าตนเองมีปัญหาสุขภาพช่องปาก โดยปัญหาที่พบมากที่สุดคือมีหินปูน (48.9%) และมีเศษอาหารติดฟัน ร้อยละ 44.1 นอกจากนี้ยังพบว่าสภาวะฟันผุมีความสัมพันธ์กับระดับการศึกษา โดยกลุ่มพระสงฆ์ที่จบประถมศึกษาหรือต่ำกว่ามีประสบการณ์โรคฟันผุ, จำนวนฟันผุที่ยังไม่ได้รับการรักษาและฟันถอน มากกว่า และ จำนวนฟันผุอุดน้อยกว่ากลุ่มพระสงฆ์ที่มีการศึกษาสูงกว่าอนุสัญญาขึ้นไป ( $p\text{-value} < 0.05$ ) และพระสงฆ์ที่ไม่ได้สูบบุหรี่มีจำนวนฟันผุถอน, จำนวนฟันผุอุดถอน และเป็นโรคปริทันต์น้อยกว่ากลุ่มพระสงฆ์ที่ให้ประวัติว่าเคยสูบบุหรี่ และกลุ่มที่ปัจจุบันยังสูบบุหรี่ ( $p\text{-value} < 0.05$ )

**สรุป:** ปัจจุบันกลุ่มตัวอย่างพระสงฆ์จาก 28 วัดกำลังประสบปัญหาทั้งโรคฟันผุและโรคทางสภาวะปริทันต์ที่ยังไม่ได้รับการรักษา ดังนั้นควรจะมีการจัดบริการทันตกรรมเพื่อรองรับปัญหาที่มีอยู่และการส่งเสริม ป้องกัน ลดความเสี่ยงของการเกิดใหม่ของโรค และการชะลอความรุนแรงของโรค ควรได้รับการเน้นอย่างต่อเนื่องเพื่อให้ได้มาซึ่งสุขภาพช่องปากที่ดีของพระสงฆ์ และลดภาระการรักษาโรคทันตกรรมในอนาคต

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