ORIGINAL ARTICLES

Dental care at commune health center in Cai Be district, Tien Giang province: Practical implications

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ABSTRACT

Objective: To analyze the status of dental care activities, including prevention and treatment of dental conditions at 09 health commune stations in Cai Be district, Tien Giang province in the period of 2016 - 2018.

Methods: The study used a cross-sectional design (using qualitative and secondary data), to conduct, 18 in-depth interviews with administrators of 1 district health center, 3 commune health stations, 3 medical staff in charge of oral diseases, 8 patients, and 3 school medical staff. Thematic analysis was used, and quantitative data were analyzed with descriptive statistics

Findings: Communication activities for dental care were carried out annually; all patients were consulted and educated on oral health and prevention measures for oral and dental diseases. All 09 commune health stations have medical staff in charge of oral diseases; however, their professional qualifications are limited. Usually, they are not dentists but dentomaxillofacial physicians, or even nurses in some stations. All 09/09 commune health stations do not have staff that are trained on dental care at hospitals.

Conclusions: Dental care at the commune level has a number of limitations, requiring further development of human resources, technical support, communication activities, and oral care supervision at communal health stations and schools.

Key words: *dental care, commune health station, Vietnam.*

INTRODUCTION

Oral care is an integral part of overall health. Oral health relates to the health of the mouth, teeth, gums, tongue, lips, and other related structures. Dental disease is common in all ages, with about 90% of the world's population currently identified as suffering from it. In Vietnam, over 80% of the population has dental disease (1) (2). The World Health Organization assessed the prevalence of dental diseases in Vietnam, showing that oral disease was increasing among the population (3).

Cai Be district is in the west of Tien Giang province, 50 km from the center of My Tho city. Currently, Cai Be district has medical units including the Health Department, Cai Be district health center and 25 commune health stations (CHSs) of communes and towns. In the Cai Be district, there are nine communes that meet new rural standards according to the Prime Minister's Decision 1980/QĐ-TTg dated October 17, 2016, on the promulgation of the national set of criteria for new rural communes for the 2016-2020 period. In the district, dental care activities have been implemented at general hospitals at the district

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line, private hospitals, private polyclinics, and qualified medical stations according to regulations of the Ministry of Health (4).

This article presents the results of a study conducted at 09 health commune stations of 09 communes that achieved new rural standards of the Cai Be district. Even now, dental care at the commune level is still poor, and the dental staff is lacking in necessary dental care.

So how are oral health care activities at commune health stations performed? This paper aims to describe the status of oral care activities at 09 CHSs of communes, Cai Be district, Tien Giang province in the period 2016 – 2018. Findings of the study will inform appropriate solutions to improve the results of oral health care at CHSs.

METHODS

The study employed across-sectional study design. The study was conducted from February 1 to September 30 in 2019. The study took place at the dental clinics at 9 CHSs of Cai Be district and at the medical center of Cai Be district.

This article paper presents the results of a study conducted at 09 health commune stations of all 09 communes that achieved new rural standards of Cai Be district, of which 03 communes represent 03 regions according to the national set of criteria for commune health stations. The region's distance from the CHS is <3 km, 2 is < 5 km and > 5 km (4).

Qualitative research participants: Including 18 people as follows:

- 01 medical staff working at the dental department of Cai Be District Medical Center.

- 03 dental staff who currently directly treating and monitoring of oral patients at 3 selected CHS

- 03 selected CHS leaders

- 03 school dental staff at 03 primary schools in 03 selected communes

- 08 dental patients visiting selected CHSs

Secondary data

- Medical examination books and medical history of patients who have been diagnosed and treated for oral diseases

- Report of the commune health station on equipment and resources of the health station for the management and treatment of oral patients

Data collection: Secondary data was collected through monitoring and management books of patients with oral diseases at CHS to synthesize data on the number of dental visits at 9 health stations at Cai Be district. All in-depth interviews and short responses were recorded and then transcribed verbatim. The researcher is the interviewer, interviews take about 45-60 minutes each, often took place at clinics of medical stations and health centers of Cai Be district.

Variables are as follows

- Number of dental patients visiting the health station for examination and treatment

- Number of dental patients managed at CHSs over the years

- Patient's gender

- Patient's age group

- Number of communication materials distributed to commune health stations

- Number of communications in years of commune health stations

Key themes:

- Actual situation of school dental work in communes

- Dental education
- Dental prevention with Fluor

Methods of data analysis

Qualitative data were analyzed by topic. Quantitative data were analyzed with descriptive statistics. Details as follows:

Actual status of oral health care activities at 9 commune health stations:

- Activities of oral diseases treatment:

+ Number of dental patients visiting the health station for examination and treatment

+ Number of dental patients managed at CHSs over the years

+ Patient's gender

+ Patient's age group

- Activities to prevent dental disease:

+ Number of communication materials distributed to commune health stations

+ Number of communications in years of commune health stations

+ Actual situation of school dental work in communes

The study was carried out upon the official decision of the Ethics Committee - University of Public Health. (According to Decision No. 232/2019/YTCC-HD3 dated April 23, 2019).

RESULTS

In this section, we present data on the treatment activities of dental conditions at CHSs.

Dental Treatment activities at CHSs

Table 1. Number of dental patients visit dental clinic

No	CHSs	2016	2017	2018
1.	Tan Thanh	5506	6346	7435
2.	My Đuc Đong	3944	4066	5568
3.	Hau My Trinh	3664	3884	4172
4.	Dong Hoa Hiep	5924	6536	7958
5.	My Duc Tay	2668	3642	4037
6.	My Trung	2698	3289	3921
7.	Tan Hung	3632	4384	4994
8.	An Cu	2628	2836	3501
9.	My Loi A	892	1420	2068
	Total	**31556**	**36403**	**43654**

In this table, we only refer to the cases of patients who came for a dental examination, not taking into account cases of periodic health check-ups. A patient can visit several times a year.

According to the records and reports of 09 medical stations, in 2016, there were 31556 patients who came for examination, in 2017 there were 36403, and in 2018 there were 43654. Thus, the number of patients visiting the clinic is increasing year by year.

Table 2. Number of dental patients managed at CHS over the years

No.	CHS	2016	2017	2018
1.	Tan Thanh	768	839	846
2.	My Duc Dong	521	611	619
3.	Hau My Trinh	392	452	458
4.	Dong Hoa Hiep	861	928	932
5.	My Duc Tay	522	601	609
6.	My Trung	619	756	760
7.	Tan Hung	761	889	909
8.	An Cu	509	615	721
9.	My Loi A	528	699	716
10.	**Total**	**5481**	**6390**	**6570**

Table 2 shows the number of dental patients who visited the clinic for examination and treatment in three years. The number of dental patients managed at CHSs have gradually increased over the three years, specifically: In 2016, there were 5481 patients, in 2017 it increased to 6390, and in 2018 it increased to 6570. All commune health stations have books to monitor oral patients and medical records for outpatient treatment for each patient, and each patient is instructed to buy 01 home monitoring book.

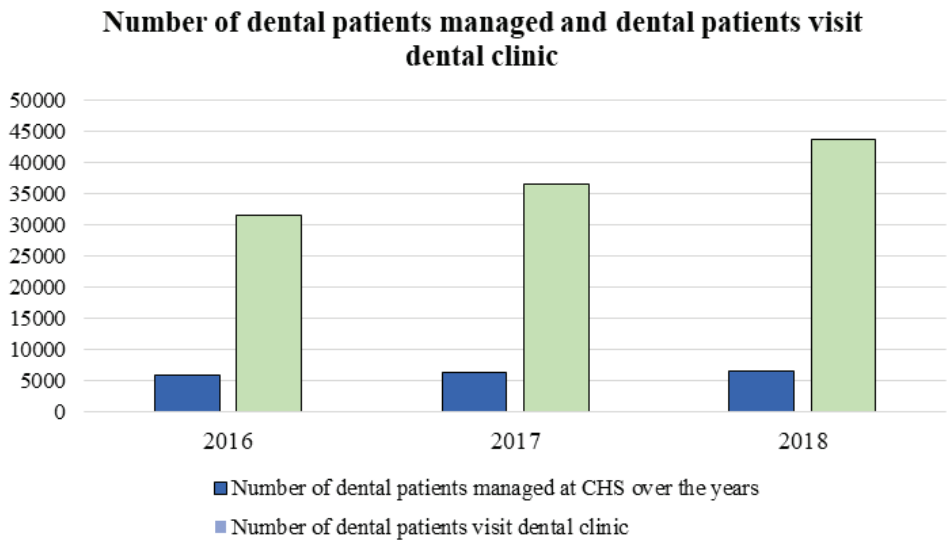

Chart 1. **Number of dental patients managed and dental patients visit dental clinic**

The chart 1 shows the number of dental patients visited dental clinic and number of dental patients managed at CHSs have gradually increased over the years. Regarding the gender of oral patients over the years, females accounted for a higher percentage than males, respectively, as in 2016, 2017, and 2018 they accounted for 56.76%, 55.04% and 57.02%, respectively. Regarding the age group distribution of the research subjects, the age group from 40-65 years old accounted for the highest percentage at 57.52%, 59.44% and 76.45%, respectively.

Preventive activities

Oral health education is popular with people through the media, radio, television, newspapers, posters, leaflets, etc. This is a proactive preventive measure. Preventive activities included communication activities at CHSs and school dental programs in schools.

Communication activities

Table 3. Number of communication materials distributed to a health station

No.	Type of documents of dental diseases	Quantity	Number of health stations to be equipped
1	Poster size 60cm x 90cm	9	9/9
2	Leaflets	100	9/9
3	Paintings	0	0
4	Posters	1	5/9

From the above results, there is a lack of communication materials at 9 commune health stations in both quantity and content of topics on oral diseases. Every year, the number of posters received by the health station was only 09, the number of leaflets was 100, there was only one panel (only five communes were equipped with panels, four communes did not have any), and flip pictures were not available in any communes. Thus, the number of communication materials is inadequate compared to the number of patients who come for dental examination and treatment. The qualitative results from in-depth interviews with commune health officials also showed that communication activities at commune health stations have previously been conducted, but it is not effective.

"At our station, there is a lack of leaflets, flip paintings…. Only when there is a P/S program to take care of oral health in the commune, it will be issued. But the program has not been seen for a few years now, so the station does not have any to provide to the people" (in-depth interview, Health staff, female, CHS 3)

The lack of communication materials affects the consultation and communication of oral diseases for patients. This is an issue such that the quality of health education communication needs to be improved.

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Table 4. Number of communication sessions per year by CHSs about oral diseases at commune health stations

No.	CHS	Before reaching new-rural standards (before 2016)	After reaching new-rural standards till now (2016-2018)
1.	Tan Thanh	0	12
2.	My Duc Dong	0	6
3.	Hau My Trinh	0	4
4.	Dong Hoa Hiep	0	24
5.	My Duc Tay	0	8
6.	My Trung	0	8
7.	Tan Hung	0	18
8.	An Cu	0	12
9.	My Loi A	0	10

Before reaching the new rural standards, there was no medical station conducting communication about oral diseases on the radio station of the medical station. According to the results of Table 4, after reaching the new rural standard, the health stations did communicate about oral diseases, but within a year, these stations only conducted 3-5 communication sessions.

Through interviews with commune health workers, the commune health stations communicate at the health stations, but not regularly and have to integrate with many other health programs. The main reason is that there is no funding for the dental disease program. Oral disease programs are not part of the national health programs:

"As you know, the health station has no funding and is not funded to carry out communication, so is dental disease. They only carry out communication on food safety, population and family planning which are related to the scoring of national health criteria and sometimes also include dental disease when people come to the doctor and request information about tooth decay…" (in-depth interview, Health officer, Commune 1)

School dental work in at the commune level

The inter-ministerial Circular (from Ministry of Health and the Ministry of Education and Training) No. 23/1987 dated October 21, 1987 stipulates the tasks and organization of the implementation of the school dental program. The health sector is responsible for presiding over training and professional and technical direction with support from community health stations. The education & training sector is responsible for presiding over the implementation of three main tasks:

- Dental education: the leading task in the work of dental disease for students at school by, bringing oral health education into the main curriculum with 4 sessions each year in primary schools.

- Prevention with Fluor: The Institute of Odonto-Stomatology is responsible for determining the areas where students need to rinse their mouths weekly with 0.2% Nafluor solution. The school together with school dentists is responsible for organizing Fluor mouthwash for students.

- Periodically check the student's oral disease situation and plan prompt treatment at school to avoid complications.

Dental education

Through observing the school's dental work and in-depth interviews with medical staff, it was found that in the curriculum, there is no program specifically for tooth decay prevention. Only grade 1 students learn about the practice of brushing teeth. However, the time to practice brushing teeth is not enough, the number of models is small, and some students have not yet practiced, so there is no opportunity for students to correct their mistakes. An explanation of the limitation in dental education, is the school's funding being the main reason as schools have to spend on many tasks, therefore the school's dental work has not been taken care of adequately. Information from interviews clearly shows that oral care is integrated in the school curriculum to a certain extent. In fact, oral care has been integrated in the school curriculum to a certain extent.

"There is no separate curriculum for tooth decay prevention, but in the natural and social subject for the first Grade, there is a theory lesson on tooth care and protection and a practical lesson on washing and brushing teeth." (In-depth interview, School Health Officer, Commune 3).

"There is no separate curriculum for prevention of tooth decay, gingivitis, or dental care for students at school. We are not trained in dental care" (In-depth interview, School Health Officer, Commune 1).

Dental Prevention with Fluor

Every month, students rinsed 1-2 times with a 2% fluoride solution which was mixed by school health officers, then poured into cups for students to rinse their mouths. This is a particularly important activity in maintaining oral health because fluoride helps demineralize tooth enamel, strengthens teeth, and effectively prevents tooth decay.

It is worth mentioning that the practice of rinsing with Fluoride is not supervised by the homeroom teacher, as a school health worker in the commune shared:

"Monitoring students to rinse their mouths is the job of the medical staff, this is not the job of the teachers" (In-depth interview, School Health Officer, Commune 3)

In fact, the implementation of dental disease prevention with fluoride in schools is still inadequate due to the lack of monitoring by teachers, and with no supervision and support from medical staff, the implementation is just to fulfill the task and does not focus on quality.

Periodically check the status of students oral diseases to plan prompt treatment at school to avoid complications

Periodic dental check-ups for students at school: all schools at the beginning of the school year will cooperate with commune health stations to provide health check-ups for students throughout the school, including dental check-ups, but not periodical dental check-ups (every 6 months) as the school does not have the conditions to treat tooth decay for children.

"Every year we organize a health check-up which combines the dental examination for the students. However, the examination is a general examination of the whole body, the dental examination is not conducted by a separate specialist, so the results are not exactly accurate. (In-depth interview, School Health Officer, Commune 2)

In addition, in observing the school's medical room, it was found that there were students'

general health checks recorded in the health management file, but there was no separate record of oral health, so the monitoring of dental disease progress is not conducted. At the same time, the medicine cabinet of the medical room only has a few common medicines.

"The medical room still lacks a lot of equipment and facilities, medicine for toothache and tooth decay is not available." (In-depth interview, School Health Officer, Commune 1)

DISCUSSION

The number of treated patients and the number of patients with oral disease managed to increase gradually over the years. The management of patients through books and medical records is conducted by commune health stations in accordance with regulations. All commune health stations have books to monitor oral patients and medical records for outpatient treatment for each patient, and each patient is instructed to buy a home monitoring book. Regarding the sex of oral patients over the years, the female proportion is higher than that of males and the most common age is 40-65 years old.

There are many limitations in the prevention of oral diseases. Although when meeting the new rural standard, the health stations do communicate about oral diseases, but this implementation is only a kind of formality. Within a year, these health stations can only conduct 3-5 communication sessions.

At the health station, the education about oral diseases is direct communication when the patients come for examination. Hanging panels, posters and banners have been placed around the health station with easy-to-understand content, showing how to prevent and treat oral diseases. However, the number of communication materials provided to commune health stations has an insignificant effect on communication effectiveness.

According to the leader of the health station on oral disease education, it is positive that behavior change has practical effects in reducing risk factors, thereby reducing oral disease in the community.

Within the framework of this article, we have not analyzed the current situation of inadequacies in the treatment of oral diseases at the commune level. Therefore, it is necessary to continue researching in the future on policies related to dental care technique classification, factors affecting the quality of dental examination and treatment services. Professional content of examination and treatment of oral diseases at the commune level is necessary.

CONCLUSIONS

From the research results, it has been shown that the communication about oral diseases at the commune health station has not been paid appropriate attention by the superiors, and since there is no budget for communication activities, these activities are only integrated with other communication activities. The health center has not assigned specific targets to the commune health station on communication activities.

In schools, the implementation of teaching content on dental work is only implemented just to fulfill the curriculum, and does not guarante adequate content and quality of such.

The implementation of dental disease prevention with fluoride in schools is still inadequate due to the lack of supervision from teachers and no supervision or support from the medical staff, so the implementation

is simply a formality with no focus on quality. Periodic dental check-ups for children are also not a focus, with the school only having medical records for children for their once a year general health check-ups and no separate dental health record book being available, The early detection of oral diseases for children is inadequate, and monitoring the progress of such diseases is difficult.

RECOMMENDATIONS

Some recommendations for effective treatment and prevention of oral diseases in 9 Cai Be communes, Tien Giang district are as follows:

- It is necessary to strengthen training, retraining and development of human resources to take care of oral diseases (CHS staff, staff in charge of school dental programs)

- Strengthen communication activities about oral diseases to the community.

- Strengthen monitoring, supervision, and professional support for dental care activities at commune health stations and schools.

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