

## **CHAPTER FIVE**

### **CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS**

This chapter presents (1) a summary of the study, (2) a summary of the findings, (3) discussion of the knowledge about dentistry of street dentists in Bangkok and unexpected happenings, (4) conclusions, and (5) recommendations for further research.

#### **5.1 SUMMARY OF THE STUDY**

This section summarizes the investigation of the knowledge about dentistry of “Street Dentists” in Bangkok. The motivation to study their knowledge was that this denture making alternative had many disadvantages known to the public, but they still existed despite illegalization. The motivation to study their knowledge was that it was known to the public in general that these denturists’ work was inferior and to learn whether or not they possess some ‘good’ denture practice and knowledge to be less harmful to population who make use of their work.

##### **5.1.1 Objective of the Study**

The principle of this study was to discover the level and the sources of knowledge of street dentists about making proper dentures and disinfection techniques. Moreover, this research explored their working problems and help they needed from the associated authorities.

##### **5.1.2 Subjects, Materials, and Procedures**

To reach the goal, the subjects were selected by using purposive sample technique plus snowball technique. After the Thai-translated questionnaire of thirty questions had been finished and tested, the survey started from Thaprachan on November 29, 2008 and then expanded to other areas. Data was recorded for one sample at a time of fifteen minutes. On January 14, 2009 this survey stopped as scheduled; 23 questionnaires were collected. Then, the researcher analyzed the data by using SPSS version 14.0 for descriptive statistics such as frequency distribution and percentage.

## 5.2 SUMMARY OF THE FINDINGS

The results of the study can be summarized as follows:

### 5.2.1 The respondent's general characteristics and the scope of their work

Regarding the general characteristics of the 23 street dentists questioned in Bangkok, they were mainly male and were largely over 40 years old; they were born equally in Bangkok plus suburbs and in up-country. In addition, they all had spouses. Besides, they mostly graduated not above senior high school. Moreover, the greater part of them had never worked related to health-care services, but then almost a half of respondents had worked as street dentists for 10-20 years. Additionally, most of them earned more than 40,000 baht per month of which the maximum were 160,000 baht per month.

Concerning the respondents' scope of their work, all of them made removable plastic-based dentures, and one-third also made removable metal-based dentures. In addition, a minority repaired dentures and a few did non-denture work. On the other hand, the majority of them did not make dentures in case of severe, terrible tooth decay or gum swelling.

### 5.2.2 The respondents' sources of knowledge

The researcher found that the most common source of respondents' knowledge was their families and relatives, and the second source was hired street dentists.

### 5.2.3 The respondents' knowledge level of making dentures and disinfection techniques

5.2.3.1 The findings about the knowledge of making dentures of these street dentists are as follows:

1. Most of them did not ask customers only about the spec of wanted dentures before taking imprints, but they also paid attention to intraoral condition, medical history, abnormal tissue, and denture wearing experience as well.
2. When customers had many severely decayed teeth, the majority of respondents suggested to them to see dentists before making dentures.

3. More than three-fourths misunderstood that saliva had no effect on dentures, while less than one-fourth perceived that the more saliva, the more dentures' retention.

4. All respondents mounted the tooth models on articulators, while one respondent added the option of not doing so.

5. All respondents correctly arranged artificial teeth in conformity with the color, size, or shape of the remaining teeth. However, their tooth selection depended on wearers' satisfaction when no tooth was available. In other words, none of them was confused that whitish shade was more favorable for wearers.

6. Almost all of the respondents adjusted false-teeth alignment according to bone ridge, adjacent and opposite teeth, trying-in, and clients' satisfaction. There was only one person who did this wrongly by choosing merely to please clients.

7. Most of the respondents made the base of removable plastic dentures correctly by choosing only waiting until the mixture of resin and solution became dough before adapting it on a model, not combining with others ways.

8. When customers got pain from dentures, all respondents ground the dentures until wearers got well and some added that it took time for getting familiar with new dentures. No respondent wrongly corrected the pain by grinding the natural teeth.

9. If false teeth or dentures cracked or fractured, almost all of the respondents repaired or make new ones without gluing them. Only one respondent did malpractice repairing by using glue.

5.2.3.2 The findings about the knowledge of disinfection techniques of these street dentists are as follows:

1. Less than half of the respondents wore gloves while working with clients.

2. After taking the imprint out of customer's mouth, nearly all of the respondents washed the imprint either by tap water or antiseptic solution before pouring dental stone. Less than 10% of the respondents skipped this hygienic step.

3. After removing tooth models from impression trays, the majority of the respondents cleaned and washed the trays with tap water or boiled

them in hot water. A minority of the respondents wrongly did this step by removing the impression without cleaning or washing with tap water.

4. For denture-cleaning suggestions, nearly three-fourths correctly suggested to denture wearers that dentures should be removed and brushed softly with toothpaste without immersing dentures in mouthwash.

5. Nearly all of the respondents correctly suggested that denture wearers not wear dentures during sleep.

6. Nearly three-fourths of the respondents properly suggested to clients to immerse the removed dentures in plain water, not in other solutions.

The respondents' knowledge score analyzed ranged from 9 marks to 14 marks of the full score of 15 marks. Therefore, the majority of the respondents passed this knowledge benchmark of 12 marks, but none got full score.

#### 5.2.4 The respondents' working problems

All of the respondents faced generally similar problems: pain, unfamiliarity with new dentures, and wrong denture use.

#### 5.2.5 The help the respondents wanted from the associated authorities.

No respondents wanted more knowledge of dentistry or help from the associated authorities.

### 5.3 DISCUSSION

This section discusses the findings found from this data and the unexpected findings found while doing research.

5.3.1 About the general characteristics of the street dentists in Bangkok, they were mostly male. This might be related to the natural attributes of denture-making dealing with craftsmanship such as working with plaster or cement, drilling machines, and volatile mixture. As seen in masonry work, men were adaptable to work with cement, drilling, and painting more than women. Moreover, Thai women in the past were seriously raised up within the fine framework of social norm or they were to stay away from an indecent image, so this illegal work was mainly dominated by men. Next, the finding that the street dentists were all married conformed to other findings that they basically were above 40 years old and they had done many other

jobs before being street dentists. Then, considering their high monthly income, the researcher perceived the reason why they became illegal denturists. The earnings attracted anyone whose background normally suited low income. In addition, because of the belief that denture making was easy, required short-time training and no high profile background persons without health-caring experience from any province and any educational profile possibly thought that they were suited to be street dentists. Therefore, after having experienced low invested work but high income returns, about a half of respondents continued being street dentists for 10-20 years.

5.3.2 Due to the selling points of their advertising that their services were cheap and quick, all of the street dentists made dentures with fast-setting materials. In other words, they made low-quality removable plastic-based dentures. Additionally, some of the street dentists expanded their work scope to making removable metal-based dentures to serve higher quality demand and their own higher income, but longer waiting-time. Moreover, a few street dentists did non-denture work such as diamond embedding in canine teeth and fake orthodontics because they were greedy though they knew that the work caused harm to clients. On the contrary, they mostly refused to make dentures in case of severe tooth decay or gum swelling. This may be because if not, they knew they would certainly fail. Thus, they suggested that clients see dentists before coming back to them. It was a self-prevention from losing faith in their ability.

5.3.3 After obtaining the information of level of knowledge of making denture, the researcher found that only a few of the street dentists knew the effect of saliva on dentures' retention. This wrong understanding led them to get problems in case of no natural tooth left over. Furthermore, they did not prevent contamination between themselves and clients by wearing gloves. That is, they performed careless disinfection techniques.

In this research, the pass criteria of knowledge score was 12-15 marks because the researcher thought that health concern was not to be compromised to low score. Hence, the set point was 80% of the full score. Although the researcher really wanted to probe the knowledge scientifically, all knowledge questions were designed according to the real practice at their working sites, not real dentists' practice standard. The framework of the question-design was determined by observation including in-

depth interview data of the background of street dentists described in dentist Suphaluk Lertmanorut's thesis. For example, when the researcher designed a question about false-tooth alignment by the street dentists, it was only whether they used articulator to mount the tooth models or not. On the other hand, the artificial tooth alignment by dentists was so complicated that dentists had to record the relation of jaws, patients' facial profile, the bone under dentures, and so on to achieve the right tooth alignment. Moreover, aseptic techniques executed by dentists were more rigorous than only cleaning with tap water, antiseptic solution, and boiling water; they were strictly performed following the rules established by the dental association such as using autoclave machines and many other complex techniques.

Although the practical correct answers were offered for selection, none of the street dentists got the full score of 15 marks. Considering the significant amount who failed that was more than 20% of all respondents and the results that those who passed could not get full score on the extremely adjusted questions, the researcher thought that it reflected an inadequate knowledge of the street dentists. Moreover, unexpectedly and unbelievably, the investigator (the data collector) noticed that some answers chosen were not the way they act. For example, some answered that they waited until the mixture of resin and solution became dough, but actually the data collectors observed that they mixed and spread the mixture on the model without waiting. In addition, some claimed that they wore gloves, but the data collectors never saw that any of the respondents did so. Moreover, some answered they cleaned and washed the contaminated appliances with antiseptic or boiling water, but, in reality, they only soaked them in buckets of tainted water. Their answers were different from what had actually happened, and this was in agreement with the descriptive information in dentist Suphaluk Lertmanorut's thesis. In the researcher's opinion, they may select the good-looking answers to show that they were knowledgeable. Otherwise, they may know the right answers but intend to do their job in negligent ways for earning a high profit and spending less time on the work. The unexpected findings clearly supported dentist Nipatsorn Ladawan's assertion, "The good dentures were constructed by dental professionals. It was not as easy, quick, and cheap as done by illegal denturists. To establish good dentures it took so much time for maximum

quality and safety that dentists had to spend at least six years to learn”(นิภัศสร ทดาวัดย์, 2505, น.196-198).

The Consumer Protection Act of 1979, section 4(2) declared that people had the right to enjoy freedom in the choice of goods or services, and presumably clients had accepted the street dentists' working. However, the researcher could not disregard the information of this improper working, and recognized that it was a duty to share the fact and to alert the society of harm from indecent denture making because the Consumer protection Act of 1979, section 4(3) stated that citizens had the right to expect safety in the use of goods or services. Therefore, innocent people should be protected at least by the findings of the alternative in the step of perceiving benefits in the Health Belief Model. Consequently, they should consider whether the cues to action from commercial advertisement were credible and reasonable or not. People should be able to access information before making decision between dentists and street dentists according to “Consumer behavior and Consumer Buying Process” by Philip Kotler (2003): problem or need recognition, information search, alternative evaluation, purchase and post-purchase evaluation. In sum, the findings of knowledge about denture making and disinfection techniques both from collected data and from this experience should be made known to public awareness before people make their decision in choosing health care. Besides, Thailand has never had a study course for legal denturism like George Yonge College of Applied Science and Technology in Canada, and others in over twenty countries such as Australia, Canada, and the United Kingdom. As mentioned earlier, the researcher desired to find out street dentists' knowledge about dentistry for some possible social benefits, but all respondents' working problems were very trivial problems. In other words, they did not realize any problems dealing with inadequate knowledge about dentistry, and amazingly, they clearly refused any knowledge if offered. Therefore, their attitude unavoidably reminded the researcher of dentist Chaleamsak Rojanapradit's question whether it was time to get rid of all illegal dentists from our beloved Thailand for people's welfare. In the researcher's opinion, their willingness to ignore additional dental knowledge conveyed the message that they had no concern about social health care, but focused only on money. In addition, they did not mention problems caused by illegalization

though they were depressed by political mechanism, according to “The Concept of the Origins and Resolution of Interoccupational Conflict” by James W. Begun and Ronald C. Lippincott in 1987. This agreed with the information in dentist Suphaluk Lertmanorut’s thesis that they were protected by their own street-dentist network and polices. Moreover, when arrested, they were not guilty if it was not proved that they were inserting materials into customers’ mouths according to the Dental Council president Pisal Thepsitta’s statement in the press release organized by the Dental Council on May 12, 2008.

This research partially met the goal of the study because of various limitations. An important problem was the unknown number and locations of street dentists in Bangkok because no formal record was made. Hence, the number was assigned groundlessly, but the researcher was hopeful that the more respondents, the more validity of the findings. Accordingly, the expected number was set at 100 respondents, but the real total number collected was 23 respondents. This sample size problem derived from overestimation, scattered locations, non-cooperation of respondents, and limited time. First, according to a senior respondent who had worked for more than 20 years, the number of actual Bangkok’s street dentists was around 30 persons, so the researcher may have exaggerated the sample size. Second, data collection started from Thaphrachan area as planned until unable to do further research there. Then, moving to other areas as informed in dentist Suphaluk Lertmanorut’s thesis and others areas someone suggested such as Daokanong, Phrapradaeng, nearby Siriraj Hospital, Nonthaburi river's harbour, Wongweinyai, Charoenkrung, and so on, the data collectors were employed a very long time to reach the scattered sites. Moreover, the data collectors did not meet any respondents at the sites mentioned because street dentists were absent, and some would present themselves only when clients really intended to make dentures. That was, their brokers signaled them. As a result, although data collectors worked hard, time passed without advancement. Third, non-cooperation of respondents was a significant obstacle because some respondents refused to answer any question and some made phone calls to block other street dentists from answering these survey questions. This phenomenon reflected that “street dentists” was still a sensitive issue in our society. They were afraid that strangers may trouble them because their work was illegal.



Moreover, according to dentist Suphaluk Lertmanorut, they were afraid that the data collectors might be the authorities from the Revenue Department. However, not all street dentists refused to give information to the data collectors, but they would answer if there was no questionnaire. So, the answers were collected by talking and when finished all questions in mind, the data collectors had to record the data in a real questionnaire immediately. Additionally, some street dentists were kind enough to appoint the data collectors to come back later when they were less busy with denture making. The data collectors had to adjust the data collection depending on the condition enhancing willingness of the respondents. For example, when the researcher asked some street dentists to help fulfill this research, they declined to do so. Amazingly, the researcher sent a trained assistant to get the answers from the previous street dentists, and she succeeded because they communicated in North-eastern dialect. Then, 23 questionnaires were collected; the time was up as scheduled. Therefore, the field work ended, and then data analysis began. Although this survey reported not much quantitative data, it may be a pilot study for other researchers to investigate more on this particular group. In the researcher's opinion, this study may be done better by observation and in-depth interview, not by questionnaires. However, for this very short time, the researcher thought that this research achieved the objectives in the aspects of assessment of knowledge of denture making and disinfection techniques of the street dentists in Bangkok, working problems, and help needed by using questionnaires and on-site observation. Additionally, this survey unveiled a lot of extra information opposite to the researcher's expectation especially their attitude, the refusal of more knowledge that may raise their status above illegal street dentists. Moreover, after the findings were interpreted, the researcher felt that it was worthy to deal with this challenging sensitive issue that affected the social health condition.

#### **5.4 CONCLUSIONS**

Although this research has been done in a very short time as scheduled, the researcher gets the answers for all the questions: where street dentists obtained knowledge of denture making from, the level of knowledge about dentistry they possess, their working problems, and the help they need. In other words, its findings fulfill the objectives by showing that the first source of knowledge of the 23 street

dentists in Bangkok was their family and relatives, and the second source was hired street dentists. Subsequently, most of them passed the criterion, 80% of 15 simple knowledge questions, of the passing level of knowledge about denture making and hygienic techniques, but none of them got full score. Next, their working problems were generally about pain, unfamiliarity, and wrongly use of dentures. Finally, no one wanted more knowledge of dentistry and help from the associated authorities. Moreover, while doing the field work or collecting data, the data collectors experienced much more resistance than cooperation though approaching with proper adaptation, honesty, and neutrality. In addition, some of their real practice was not the same as they answered.

## **5.5 RECOMMENDATIONS FOR FURTHER RESEARCH**

Based on the findings and conclusions of this study, the following recommendations are made for future research.

5.5.1 In relation to the complication of Thai cultural society, other researchers who may want to deal with this topic “Street Dentists” should be confident and be determined and very patient because it is not easy to approach the samples in the ordinary way. They always distrust strangers.

5.5.2 Up to now, the researcher still has doubt about the exact number of the street dentists in Bangkok and vicinity, so the sample size should be specially considered.

5.5.3 In the researcher’s view, this research should be better done by qualitative and not quantitative approach. Therefore, future researchers should be aware of the most suitable research design.

5.5.4 When dealing with this topic, researchers have to be mindful of the language and font style used. It should be polite, simple, and readable.

5.5.5 The researchers dealing with this topic have to pay very much attention to neutrality, not judge but report and explain only the findings.

5.5.6 This research background reported that many Thai people were waiting for dentures, so future research may find out the solutions to help them by way of the qualified denturists.

5.5.7 Instead of focusing on street dentists, future research may focus on street dentists' clients, or public opinion about this matter.

5.5.8 Future research may be done in other areas of Thailand where people have got troubles from illegal denturists as always shown in news.