CHAPTER TWO

REVIEW OF LITERATURE

This chapter reviews the literature in seven main areas along with a summary:

(1) The Framework of Existence of Thai Street Dentists

(2) The Roles of Denturists in Some Countries

(3) The Concept of the Origins and Resolution of Interoccupational Conflict

(4) The Concept of Health Belief Model

(5) The Consumer Behavior and the Consumer Buying Decision Process

(6) The Science-based Knowledge Required by Legal Denturists

(7) The Perspectives of Senior Dentists to the Outlaw Dentists

2.1 THE FRAMEWORK OF EXISTENCE OF THAI STREET DENTISTS

To understand the story of Thai outlaw dentists, the researcher reviewed the M.A. thesis by dentist Suphaluk Lertmanorut (2005).

Table 3. The Study's Procedures

Table from the thesis, "Street Denturists", by dentist Suphaluk Lertmanorut (2005)

Research questions	Research methodology	Informants/data sources
1. How did street denturists originate and develop?	-Documentary history research -Oral history	-Historical documents and text books -A senior Chinese denturist
2. Street denturists' roles -What were their social meaning -What were their socio – economic dimention of health role in the point of view of clients and denturists?	-Participatory observation -Informal interview -In-depth interview	-Denturists -Denturists' assistants -Apprentices -Involved people -Clients -Other social networks
3. What were factors supporting the origin and existence of street denturists?	-Analyzing and combination data got from the methodology above	

The thesis's topic was *Street Denturists: The State, The Dental Profession and Illegalization, Case Study of a Group of Street Denturists in Bangkok.* She studied about street denturists in terms of origin and development, existence, roles, illegalization, and righteousness to be optional denture makers. The research was a qualitative research using participatory observation including in-depth interview data approach. Sampling used is purposive with snowball sampling technique. Her research's reliability was enhanced by using triangular technique, a research technique using three or more research techniques for one research question by comparing all results of the different research techniques to confirm conclusions (Triangular research design, 2008). Dentist Suphaluk Lertmanorut experienced some distrustfulness from street dentists and some part of straddle both researcher and dentist status.

Dentist Suphaluk Lertmanorut portrayed the screen of ordinary lifestyle of street dentists in Thaprachan community including environment, their narrow working space and tainted instruments, and the procedures before customers making decision until wearing dentures. Also, she testified the stories of them as a poor supporter on various kinds of media. In addition, she mentioned other countries such as China, Tibet, Philippines, Morocco, India, and Cambodia where dental quacks had been available **(**Flickr, 2006). However, there was some dissimilarity that street dentists in some countries played roles like "charlatans" because their services include extracting teeth and some exclusive dentists' treatments, but Thai denturists did not perform those remedial treatments (DamnCoolPics, 2008).

In the past, many other treatments to cure dental problems were performed by monks, folks, or persons using pain-killing drugs and salt solution. Naturally, some people preferred quacks. Consequently, though attempting to develop education, ethical standard, and law to gain people's trust, the state could not force people to choose only dental professionals (ทันตแพทยสภา, 2538). As a result, many groups besides dental professionals shared roles to carry off dental problems.

Her findings explained the framework of existence of European street dentists, how in the past the power to explain and treat sickness was in the hand of priests. And then, the power was shared to barbers and other non-sacred persons. The barbers' work included tooth removal, so they claimed superiority in developing

science-based knowledge despite not being a monopoly or professional before barbers-surgeons became professionals. Afterward, dentists claimed to control the quality of public health by the state's standard of registrations and licenses.

In 1699, France declared the Dental Act. That was the origin of discrimination between legal dentists and illegal non-dentists to gain people's trust on state health care while it caused monopoly, autonomy, and profitability for the systemic knowledge-based group. However, a lot of evidence showed that some people still chose non-dentists.

From the website of the American Dental Association (1840), Horace Hayden and Chapin Harris established the world's first dental school, the Baltimore College of Dental Surgery, and originate the Doctor of Dental Surgery **(**DDS**)** degree. The association was founded in 1859. Then, in the early 1900s, the licensure, the state or condition of having a license granted by official or legal authority to perform medical acts and procedures not permitted by persons without such a license licensure, was achieved by the state to protect the public from those practitioners without adequate education (Licensure, n.d.). The strategy that a state passed the law forcing personnel to be registered and licensed was a tactic of authority which led to an end of free dental market for charlatans, quacks, magicians, folk healers, and so on. In brief, state eradicated and punished non-dentists, but supported and controlled dentists for its stability.

From dentist Suphaluk Lertmanorut's thesis, classical Thai dental treatments which targeted symptom alleviation related to ancient medicine and superstition such as rituals, black magicians, herbalists, and fumigators. Thais had many social values such as black tooth-staining ritual, incisal edge grinding belief, intentional extraction of lateral incisors, filing teeth when growing to puberty. In the reign of King Chulalongkorn, modern dentistry changed many Thai beliefs. For example, white teeth enhanced better look, stable teeth could be removed, tooth decay could be treated by filling, aging did not cause tooth loss, and missing teeth could be replaced by artificial teeth. This resulted in dental demand increasing and development of dental materials and techniques, but not in comfortably movable instruments like today micromotors. Before any regulation was announced, Thai dental market was shared by various types of dental personnel including Chinese

denturists, American missionaries, monks, and folk healers. In 1988 the first medical school Siriraj Hospital was founded in the reign of King Chulalongkorn (Mahidol University, Faculty of Medicine Siriraj Hospital, 2008). Since then western medicine was the exclusive group supported by state. Once the Medical act of 1923 was proclaimed, dentists were discriminated into legal dentists, first-class and second-class, and illegal dental personnel (คลังปัญญาไทย, 2550). State declared the standard of registrations and licenses to the qualified persons and to eradicate all non-dentists for people's safety and state's stability. Dentists' roles were dominated by professionals to standardize the quality of public dental health care. However, there was no definition of the qualification to be healers, so everyone could still take part in being healers or dental craftsmen, not dental therapists, but if they were harmful to people, the healers would be punished.

Only dentists from medical university were guaranteed being the first-class dentists (Suphaluk Lertmanorut, 2005, pp. 78-81). In 1938, the Dental Association of Thailand was founded (ทันตแพทยสมาคมแห่งประเทศไทย, 2543). Later, in 1940 the first Faculty of Dentistry, Chulalongkorn University was founded (จุฬาลงกรณ์มหาวิทยาลัย, คณะทันตแพทยศาสตร์, 2550). Then, in 1949, allowing self-trained practitioners to get a tooth-arrangement-test in model for the second-class licenses in dentist-shortage period came to an end. In 1994, the Dental Council was set up and the Dental act was proclaimed to control dental professions and support their monopoly and autonomy (ทันตแพทยสภา, 2541). The Act did not allow any traditional type registration (คลังเอกสารสาธารณะ, 2551). This meant state granted only modern dentistry and prohibited all others. Moreover, dental professionals defined dental work including dental craft work as a part of rehabilitation sector to monopolize completely all sectors of dental work because past dental craft work was done by anyone skillful. Dentists stimulated people by their higher qualification and performance to avoid the outlaws.

State and professionals strived to control dental health service and suppress street dentists by the Act. Consequently, many were arrested and charge with being quacks, being malpractice dentists, allowing non-dentists to work like dentists. However, Chinese customers were not concerned with their legal status but trusted in illegal dentists' ability. Additionally, the outlaw established a social network to signal

quacks' arrest. They made an effort to negotiate for licenses, but failed. Meanwhile, the outcome of authorities' control was ineffective because the outlaw still existed. Indeed, they survived and gained high income with only basic skills and easily accessible dental materials. The dental health care system was not manipulated fully and exclusively by dentists. People are active and rational for their rights to make their own choices. Her study recommended dentists to understand their existence for the sake of social and economic roles of the street denturists and client's in Thai cultural way.

She asserted that the state's point of view was concerned about denturists' problems and to clean up illegal practitioners. Moreover, she noted that some people became victims of boastful quacks because people lacked knowledge and good attitude in dental health. Besides, dentists' health care was inaccessible due to limitation of personnel, tools, and financial resource. She argued the opinion that if the legal part increased resources, the illegal would not survive. That was true for western culture which science-based system was suitable. For Thai media's aspect, they publicized the stories positively, no negative attitude, and ignore illegalization. In addition, media advertised their services as a poor supporter, folk wisdom, and cheap, speedy services. And some implied it was interesting work that everyone could be trained for. Therefore, this social and cultural health phenomenon contributed to this affordable alternative's survival despite breaking the law. The thesis stressed that Thai street denturists only make dentures, while others in some countries did more quackery.

She described the anthropologist's perspective that they viewed this origin and existence as the pluralistic nature of health culture. Since the Medical act of 1923 was announced, almost all of the illicit dentists were trained from the second-class dentists. Although some people know that they are not qualified on science-based knowledge but are trained within a shorter time than the graduated, they still prefer to get involved in the unlawful business to earn a large amount of money. Their strategies of the old-fashioned working style win clients' hearts.

Her study reported that service purchasers knew the denturists are unqualified, but the services were cheap, quick, negotiable, friendly, and functional. Clients were unhappy with the dentists because dentists fixed prices, times and

treatments, and consider them as patients, while street dentists pampered them with bargaining power. Naturally, people preferred having alternatives, so street dentists were supported by particular customers, social networks, word-of-mouth recommendations, and some media.

Cleary, Thai street dentists' existence among illegalization has been supported further by Thai cultural complexity.

2.2 THE ROLES OF DENTURISTS IN SOME COUNTRIES

In early 1980s, licensed denturism was allowed in some countries, where competent care failed because of the costly training programs' tuition and limited demand for denturists' services (Stevenson, 2003, pp. 34-37). However, now in some countries such as South Africa, denturists are successfully regulated professionals (The Society for Clinical Dental Technology, 2007).

There are many articles involving various roles of street dentists in other countries.

One article is about roadside dentists and infections. Almost all Thai street dentists do not perform dental treatments dealing with blood; they only make dentures. On the contrary, PlusNews reported on September 18, 2007 that in Lahore, capital of Pakistan's eastern Punjab Province, the roadside dentist Siraj Saeed removed teeth without anesthetic and with only primitive, contaminated tools. The quacks could pass on hepatitis and AIDS rapidly by using the same instruments on one patient after another. They only dipped their equipment in a bucket of water and washed them with soap after finishing their daily work. Dentist Anwar stated that lots of these practices were enhanced by an acute shortage of qualified dentists. In 2006, Pakistan's government showed the ratio one dentist for 23,000 people. Quacks also stemmed from costly dental treatments in the private sector. Though free, the government's services are unfavorable. In fact, people had known from media that they could be infected from contaminated instruments, but they had little awareness of hygiene and could not afford other better kinds. The Pakistan Medical Association confirmed the increasing prevalence of hepatitis rating over 11 percent. Moreover, the World Health Organization (WHO) ranks Pakistan in the "concentrated epidemic" stage of HIV/AIDS positive with over 85,000 persons infected. Plus, experts of Pakistan's

National AIDS Control Programme (NACP) admitted that the number of HIV/AIDS sufferers could be higher due to quacks in Lahore and other major cities in Pakistan continuing their unsafe practices despite campaigns to tackle the apparent risks.

In sum, roadside dentists were closely related to infectious transmission.

Another article the San Francisco Chronicle confirmed the quacks' malpractice and lack of qualification in Lahore. David Rohde reported on August 20, 2002, that Mohammad Aslam used pliers, wire cutters and a metal file on the mouths of customers. Muhammed Jameel was trained on the street in Karachi from a Chinese guy when he was 10 years old. In Pakistan, every year hundreds of thousands of patients' vital teeth were cut up and metal wire was inserted, and filed false teeth were put into patients' mouths while they were distracted by tricky talking. The large amount of street dentists evidently displayed extreme pain thresholds and meagerness. Approximately, 50 million Pakistanis' earned incomes below the international poverty line or less than $37 a month. They could not afford a $40 false tooth from a licensed dentist. Pakistan street dentists and customers had conducted their rough quack treatments on roadside areas prone to all infection without any concern for healthy but only satisfaction. Quacks wore no gloves, barely cleaned tools. Many authorities of Pakistani health officials were unable to eliminate them due to immense demands of poor people. Some believed that using fingers and herbal medicine was better than harmful brushing that could impair gums. Khan, a ninth-grade educated dental quack and tattoo artist, was proud of his secret method of removing brown stains from teeth that a western medical education could not match. However, he and some other street dentists had never removed even a tooth. They claimed they bought the same tools, teeth and glue as legal dentists. Aslam, a street dentist in the park, honored himself as a poor supporter. And this was approved by the appreciation of Anjum, the regulatory official, though he wanted them to be eradicated.

For all that, readers could see that street dentists in Lahore practiced their work in very horrible primitive ways.

In a third article from the Ludhina Tribune in India on February 19, 2001, dentists opened advanced clinics in cities for rich people, while a roadside dentist was a reasonable and affordable choice for common people although he was obviously uneducated (Roadside 'dental clinics', 2001). He was a skillful quack who had

worked with a famous dentist. His tools and price list were displayed. Treatments at customers' home and tooth removal on sidewalk were available. He decided to make and repair dentures for his own patients after making them for dentists with high earnings. Medical officials were not concerned with tooth extractions, but had to the infection of easily deceived people by quacks.

Remarkably, the roadside dentist misled people that his work was right and affordable by referring to his work experience for a dentist though he himself actually yearned for high income.

A fourth article, in July 2003 the Asiatic Society of Bangladesh reported that more than 80 percent of Bangladeshi people in India had at least one or more oral and dental diseases (Banglapedia, n.d.). There was no regular dental treatment in villages, except voluntary temporary dental camps at some places for minor extractions, scaling and temporary restoration. So, they lacked qualified dental services and mostly lived without dentures. Quack dental practice increased in the country despite insufficiency of education, skill, and dental knowledge. When the Medical and Dental Act was proclaimed in 1980, folk intellect practice of medicine or dentistry became illegal. Exceptionally, the Act granted registration for those nonqualified dental practitioners practicing dentistry since more than five years before 1980. The ratio of dentists to the population in Bangladesh was one for every 0.2 million people, and there was one dental hospital providing all sorts of free dental treatment to patients. However, private dental clinics were accessible. The large organizations had their own dentists. This was the reason for quacks' existence. In addition, dental problems increased due to early tooth loss caused by betel leaf chewing and wrong belief of worm growth in the decayed teeth.

In short, this mentioned the increasing dental problems which stemmed from wrong beliefs and insufficiency of qualified dentists while illegal roadside quacks were available despite the Dental Act.

Next, in the New York Times of June 7, 2005, Stacey Stowe reported about a decreasing of street dentists. Normally, street services were found in Jaipur city and villages just as roadside bike-repairers, barbers, cooks. But, Dr. Ajay Kakar, a dental specialist stated that street dentists decreased and remained fewer than 100 while the number of dentists was 80,000. The first class of the nation's first dental

institution graduated in 1958. In this city, Mr. Mahender Singh, an experienced street dentist, sold false teeth and performed dental services near a sidewalk in busy area near the ‘old city’. He was proud to be poor supporter. Trained by his father, Mr. Singh passed on the learning to his son. His cousins and uncles dealt with dental work as well. His tools were neatly aligned on a cloth on concrete block. He boiled extra dental tools in a tin box of water over a copper stove. He applied a low concentrated purple liquid on his hands between customers as asepsis, but if rushed, contamination was transferred from Mr. Singh, flies, instruments, and patients. He gave an anesthetic injection into the gums. Zaman Ali, an aide at a government hospital, who liked to socialize with quacks more than dentists, came for a cheaper dental bridge adjustment. When testifying to his talent, Mr. Singh displayed his acknowledgments by showing a thank you letter from a dentist in Florida who had stopped on a tour of the city and a framed article about him from a Hindi newspaper.

Amazingly, this in Jaipur city, India was different from the previous reports in articles about the decreasing number of street dentists, the dental-tool boiling, and an anesthetic injection.

Lastly, Cai Wenjun from ShanghaiDaily.com on June 20, 2008 reported about first-time severe punishment on fourteen illegal underground dentists. They were fined 10,000 Yuan due to illegal practices and cut-price service. Zhong Yue, a Huangpu health supervision agency official stated that outlaw dentists were the most common form of underground medical practitioners in Huangpu’s downtown, and most were migrant people.

This showed more serious punishment than before in China, where street dentists were not normally arrested.

2.3 THE CONCEPT OF THE ORIGINS AND RESOLUTION OF INTEROCCUPATIONAL CONFLICT

In the abstract of the significant theory by James W. Begun and Ronald C. Lippincott in 1987, they explained the reason conflict between occupations occurs as

> Conflict over work boundaries between occupations occurs when one occupation encroaches on the work functions of another

> occupation (the "dominating occupation"). Encroachment efforts originate from the strategic responses of occupations to environmental changes. The dominating occupation (or internal segments of it) opposes encroachment efforts to the extent that economic survival of the dominating occupation is threatened. Encroachment efforts heighten in intensity as the number of members of the encroaching occupation who receive education in the dominating occupation's knowledge base grows. In the case of state-regulated occupations, the political system plays a major role in the resolution of the disputes, and the political outcomes of the interoccupational conflicts depend upon both the interest group resources of the competing occupations and legislators' judgments about the competence of the encroaching occupation to perform the disputed task. This framework is illustrated using the case of optometry's attempt to expand its work boundaries to include the application of drugs to the eye (p. 368).

In short, the conflict between occupations occurs when one occupation invades another occupation. Consequently, the economic survival of the skill-based occupation is threatened, while the science -based one grows. Moreover, the political system plays a major role in the resolution of outcomes of the interoccupational conflicts. One end of the similar work is depressed by the political mechanism, and no loophole allows them to get even a bit of legalization unless they graduate from a formal institution.

2.4 THE CONCEPT OF THE HEALTH BELIEF MODEL (HBM)

About what affects people’s decision to engage with street dentists’ services, the researcher refers to the Health Belief Model (HBM) from Wikipedia. The information shown in the Encyclopedia of Public Health was that the HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. Since then, the HBM has been adapted to explore a variety of health behaviors. Next, the Health Belief Model by

Rosenstock and Becker is based upon the idea that an individual must have the willingness to participate in health interventions and believe that being healthy is a highly valued outcome; that is, a person will take a health-related action if that person feels that a negative health condition can be avoided, and a positive expectation can be accomplished by taking a recommended health action. Significantly, the most influential factor within Becker's model that might prevent an individual from engaging in healthy behaviors was the perceived barriers. Therefore, it was possible to predict if an individual would engage in positive health behaviors by determining the individuals' perception of the disease or illness, identification of modifying factors, and the likelihood that the individual will take some action. In other words, the HBM allows us to consider the probable psychological factors: ***perceived susceptibility, perceived severity, perceived benefits, and perceived barriers***. These four factors influence a patient's decision to engage with health services. An added concept, ***cues to action***, would activate readiness to perform. A recent addition to the HBM is the concept of ***self-efficacy***, or one's confidence in the ability to successfully carry out an action. These latter two factors were added by Rosenstock and others in 1988 to help the HBM better fit the challenges of changing habitual unhealthy behaviors such as condom using (Rosenstock, Strecher, & Becker, 1988, pp. 175-83).

Table 4. The Conceptual Framework and Terms of the Health Belief Model

Table from "Theory at a Glance: A Guide for Health Promotion Practice" (1997). (University of Twente, 2004).

Concept	Definition	Application
Perceived Susceptibility	One's opinion of chances of getting a condition	Define population(s) at risk, risk levels; personalize risk based on a person's features or behavior; heighten perceived susceptibility if too low.
Perceived Severity	One's opinion of how serious a condition and its consequences are	Specify consequences of the risk and the condition.
Perceived Benefits	One's belief in the efficacy of the advised action to reduce risk or seriousness of impact	Define action to take; how, where, when; clarify the positive effects to be expected.

Table 4. (Continued)

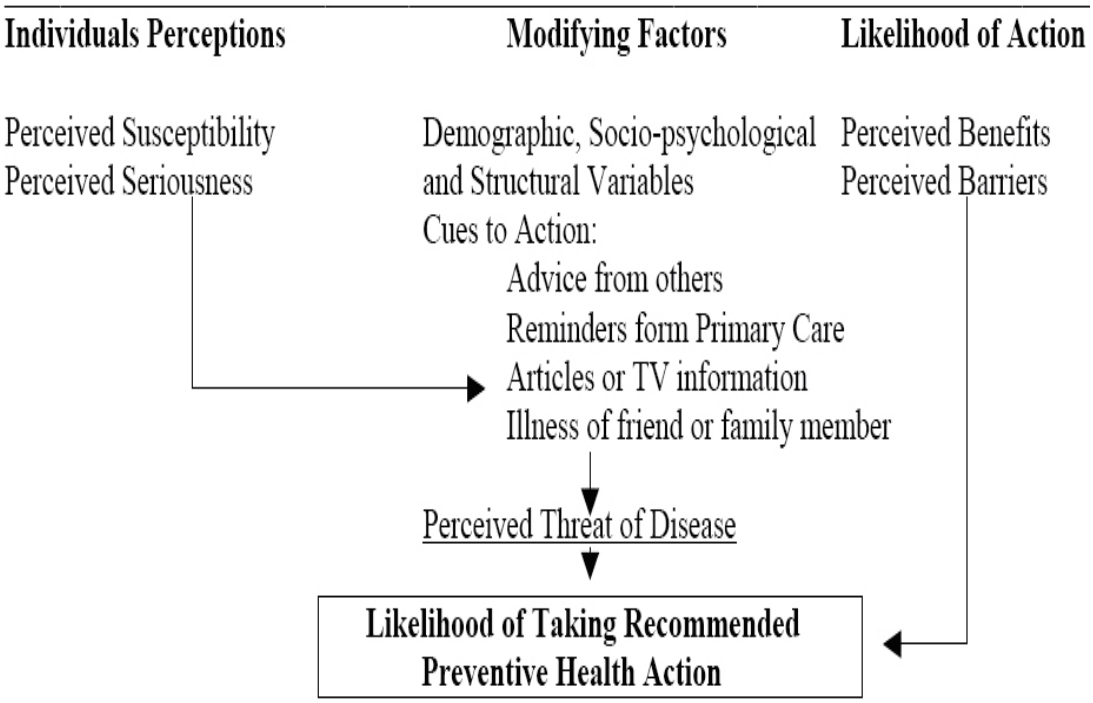
Concept	Definition	Application
Perceived Barriers	One's opinion of the tangible and psychological costs of the advised action	Identify and reduce barriers through reassurance, incentives, assistance.
Cues to Action	Strategies to activate readiness"	Provide how-to information, promote awareness, reminders.
Self-Efficacy	Confidence in one's ability to take action	Provide training, guidance in performing action.

Table 5. The Operational Framework of HBM for Engaging the Street Dentists' Services

Concept	Definition	Application
Perceived Susceptibility	One's opinion of chances of getting an unfavorable condition	People with missing teeth have to realize about defective appearance, poor pronunciation, and mastication problem.
Perceived Severity	One's opinion of how serious a condition and its consequences are significant enough to try to avoid	If the problems continue, speech error, bad personality, imperfect social function, and nutritional problems lead to mental and physical sicknesses.
Perceived Benefits	One's belief in the efficacy of the recommended action to reduce risk or seriousness of impact and protect them from getting worse	They define how, where, when to take the treatments from one who makes them satisfied either dentists or street dentists.
Perceived Barriers	One's opinion of the tangible and psychological barriers of the advised action and ways to eliminate or reduce these barriers	Identify and reduce barriers such as high cost, long time, upset, infection, and nonprofessionals through reassurance, incentives, and assistance.
Cues to Action	One's receipt of reminder cues to activate 'readiness'	Commercial information supporting their reputation directly and indirectly through media approaches the approval of clients.
Self-Efficacy	One's confidence to take the action	People feel confident that they can get suitable dentures from street dentists.

In brief, the table of the HBM is illustrated by the diagram below.

Table 6. Becker's model diagram. (Jo Ann K. Mackey, 2002)

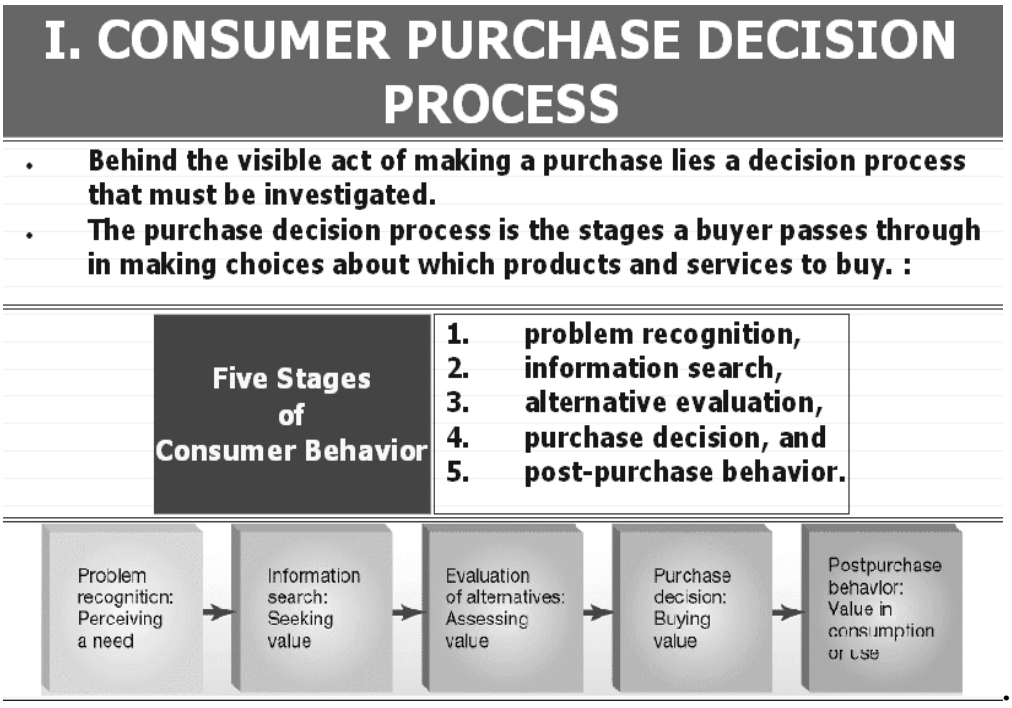


2.5 THE CONSUMER BEHAVIOR AND THE CONSUMER BUYING DECISION PROCESS

According to the relation of denture wearers and denture makers in this research, the researcher considered this as a commercial relationship (Overview to consumer behavior, 2008). Street dentists and their customers, not dentists and patients, connect with each other to serve their own demand. While the customers are contented with needed dentures, the denturists achieve their satisfying income. The concept to explain this phenomenon is '***Consumer behavior and Consumer Buying Process'*** by Philip Kotler (2003, pp. 213-223).

Before developing marketing strategies, street dentists have to understand what factors influence a buyer's behavior and how they make purchase decisions. There are five stages through which the consumers consider before deciding to accept the services. These steps are ***problem or need recognition, information search, alternative evaluation, purchase*** and ***post-purchase evaluation***.

Table 7. Five-Stage Decision-Making Process (Richard J. English, 2008)**.**



In general, buyer behavior is influenced by family, friends, reference groups, and society, so they are divided into three major factors: ***social factors, psychological factors,*** and ***personal factors*** (Kundi, J. J., Khan, F., & Mahir, M., 2008).

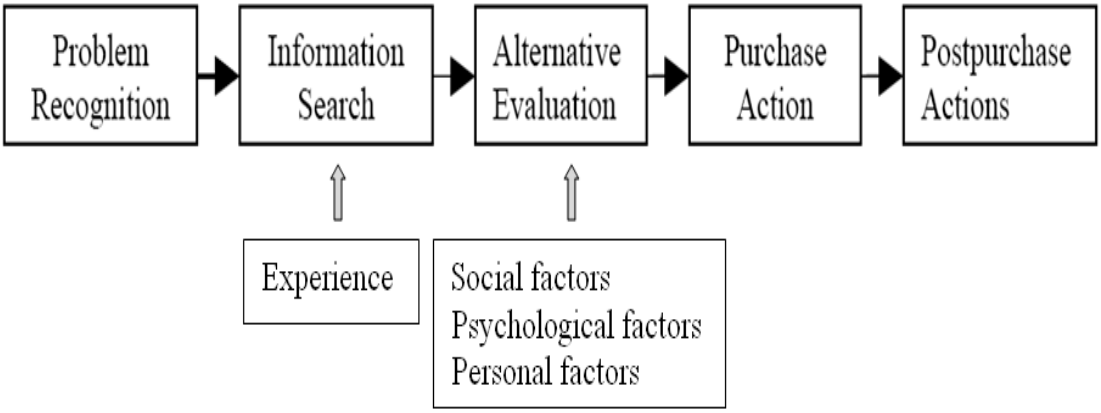
First, social factors including culture, family, social class and reference groups influence on social acceptance of the value of buying behavior. Therefore, people will join the services which most group members prefer, but avoid the services negative to their social images.

Second, psychological factors including motives, perception, learning, and personality affect a buyer's attitude. For example, some consumers love to buy only Nokia mobile phones though Samsung phones at the same qualification are cheaper.

Third, personal factors including demographic factors, lifestyle, and situational factors are unique to a person. For example, a woman buys a comfortable sedan car while a man buys a four-wheel-drive truck.

Besides the consumer behavior, the consumer buying decision process is a potential procedure which generally involves five stages as in the diagram below.

Table 8. Five-Stage Decision-Making Process modified from Philip Kotler (2003, p.204).



The model of buyer behavior-decision making process states that anyone making a decision has to consider the whole process rather than just the purchase decision. It indicates that customers pass over all stages in every purchase both of things and services. However, in many routine purchases, customers often overlook or step back some of the stages.

First, problem recognition is a crucial stage of problem awareness to seek products or services. Without recognizing the needs or wants, persons would not seek to buy goods or service.

Second, information search to find ways or alternatives able to solve the problem depends on buyers' experiences. The buyers with some experiences will recall information from memory for their choices, while the customers with no prior experience will search for the needed information from other sources such as personal sources, commercial sources, and public sources.

Third, alternative-evaluation plan to make their selection happens after finding out the information. While planning their selection, consumers focus on product or service features, benefits, and their own preferences to solve the certain problems; social factors , psychological factors , and personal factors influence buyer's behavior, play a significant role on his/her evaluation

Next, purchase action is a step after consumers have listed the compared products or services. They make selection of which and where to get ones, and take action of buying.

Finally, post-purchase actions affect the future purchases. If this buying meets customers' expectations, they will be satisfied and will repeat the purchases. In other words, when the buying fails to meet their expectations, it will cause dissatisfaction and no future purchase. Therefore, next transactions inevitably depend on consumers' expectation and satisfaction's experiences

By comparison, the Consumer Buying Decision Process is similar to the Health Belief Model as the followings.

• Problem Recognition

This is equivalent to ***Perceived Susceptibility;*** that is, people with missing teeth need dental help; for example, they need dentures to correct the flawed appearance and to solve their mastication problem.

• Information Search and Evaluation of Alternatives

This is similar to ***Perceived Severity***, ***Perceived Benefits***, and ***Perceived Barriers***. In simpler terms, once people become aware of worse situations, they seek information for comparing the advantages and disadvantages of the treatments they are going to take.

• Purchase

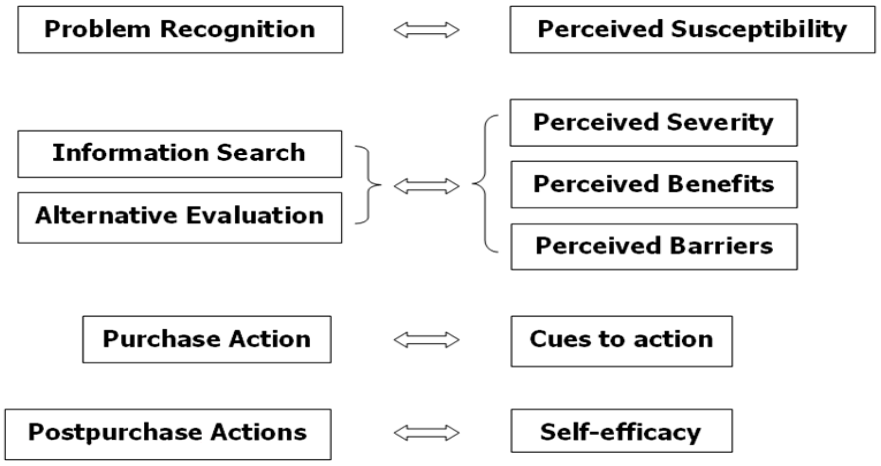
This occurs simultaneously with ***Cues to Action***. People are ready to select dental services from street dentists if they feel sure of indecisive factors such as cost, time, and quality. Otherwise, people may change their mind to choose dentists to be sure of qualified and healthy services despite high cost. They select and get services done.

• Post-Purchase Evaluation

Also**, *Self-efficacy*** means expectation fulfillment and satisfaction of services or goods.

The two theories is compared by the researcher's diagram following.

Table 9. Comparison the Health Belief Model and the Decision-Making Process



2.6 THE SCIENCE-BASED KNOWLEDGE REQUIRED BY LEGAL DENTURISTS

As mentioned earlier, denturists in some countries are legal. Their qualification has to meet the requirements of skills and knowledge by studying and being trained in registered colleges. The science-based standard knowledge is demanded. As an example, George Yonge College of Applied Science and Technology (1996) in Canada has an educational program as the following:

Table 10. Program Outline for Legal Denturism of George Yonge College

Modules	Course Code
SEMESTER I	
General anatomy and physiology	DENT7801
Dental & Orofacial Anatomy & Histology	DENT7802
Microbiology & Infection Control	DENT7803
Periodontology	DENT7804
Oral Pathology	DENT7805
Pharmacology	DENT7806
Radiology	DENT7807
Pre-Clinical Prosthetics	PRAC178

Table 10. (Continued)

SEMESTER II	
Dental Psychology	DENT7808
Dental Materials	DENT7809
Nutrition	DENT7810
Ethics & Professional Relations	DENT7811
Community & Public Health Denturism	DENT7812
Dental Biomechanics	DENT7813
Pre-Clinical Prosthetics II	PRACT278
Clinical Prosthodontics, Theory & Application	PRACT378
SEMESTER III	
Removable Partial Denture	DENT7814
Complete, Over & Immediate Dentures	DENT7815
Small Business, Marketing and Practice Management	DENT7816
Medical Emergencies in Denture Practice	DENT7817
Clinical Prosthodontics, Theory & Application	PRACT478
TOTAL HRS.	**2286**

The legal denturists have strived for their knowledge before getting a decent status at least for 2,286 hours. And, their denturism is under Denturism Act, 1991 (The College of Denturists of Ontario, 2007). On the contrary, Thai street denturists have no standard criteria to certify their abilities deserving to get a license.

The information from the US DENTURIST.com showed that denturism is currently practiced in over twenty countries throughout the world including Australia, Canada, Netherlands, Denmark, Sweden, New Finland, the United Kingdom, and six states in the USA (Denture wearers cry out, who will hear them?, 2000).

This is why the researcher desires to take advantage of doing this research to assess street dentists' knowledge about dentistry and to be the first step for other persons associated in this field to improve some condition for our social benefits.

2.7 THE PERSPECTIVES OF THE SENIOR DENTISTS TO THE OUTLAW DENTISTS

In the first article, people had always been warned about the harm from street dentists' dentures. Dentist Nipatsorn Ladawan (นิภัสสร ลดาวัลย์, 2505, น. 196-198) explained clearly how the good dentures were constructed by dental professions. It was not so easy, quick, and cheap work as done by illegal denturists. To establish good dentures took so much time for maximum quality and safety that dentists had to spend at least six years to learn two-year preclinic and four-year in-clinic dental course for all necessary scientific knowledge such as Anatomy, Physiology, and Prosthodontics.

Once dentists began to make dentures, it did not include only making pieces of dentures, but it meant to improve facial appearance, speaking, and mastication. Therefore, diagnosis by naked eyes might not be sufficient; sometimes x-ray jaws and joints for better denture design was required. Tooth-model articulation was performed to simulate the accurate jaw relation. Besides, artificial-tooth characteristics were determined carefully for proper shape, color, and so on. Before finishing denture craftworks, dentists had to do trial dentures for the last adjustment of profile, pronunciation, and dimensions until they achieved the greatest practical quality.

However, after being transformed to solid dentures, they were not left out of dentists' responsibility. Rechecking and correcting by dental professions for patients' health and safety still had to be continued because of laws of nature, things never stay the same.

Unlike non-dentists who always induce clients with commercial images of easy, quick, and cheap dentures, dentists were attentive to all necessary procedures and knowledge which non-dentists carelessly skipped and took advantages for all their claims.

In the second article written by dentist Chaleamsak Rojanapradit (เฉลิมศักดิ์ โรจนประดิษฐ์, 2504, น.107-114) about illegal dentists in Thailand since 1927, he stressed that the extension period of legal registration by two-year education or by passing a certain exam until 1949 was long enough. Yet, after that the outlaw still cried out for

licensure that authorities could not allow because professionals had to study hard in dental institutes. Amateurs or nonprofessionals do not deserve grants.

He classified Thai illegal dentists into 4 groups: denturists who did not care for registration, assistants or employees of legal dentists, other craftspersons craving for more income, and educated foreigners who failed the exam for Thai dental licenses. The first group no longer exists but the others caused problems. Additional factors which enhanced their number were officers' insufficiency, frivolity, incoordination, low scale punishment, and people's immunity from harm from malpractices.

Dentist Chaleamsak Rojanapradit suggested the solutions: increasing authorities, taking more serious arrest, educating administrators and the police more on risk which people might get, more severe punishment and loopholes correction, and informing people of malpractice.

He identified many perils from those quacks without scientific-based knowledge and referred to serious policy to clear up the outlaws by exiling the foreign unlicensed dentists.

His noteworthy question to ask for cooperation was whether it was time to get rid of all illegal dentists from our beloved Thailand for people's welfare.

In sum, the two articles showed negative attitudes toward the illegal dentists and did not suggest how to seek benefit from their experience or skills for millions of Thai edentulous people who could not access decent dentures.