

CHAPTER V

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

The conclusion, discussion and recommendation of the research on performance of caretakers providing care for DF patients at home in Trang Province in prevention of DF could be concluded and presented as follows:

5.1 CNCLUSIONS

5.1.1 Personal characteristic of the caretakers

The majority of the DF caretakers, that is, 71.35% were female; 86.98% were Buddhist, 32.03% of them were each aging group 30 – 39 years old and 40 – 49 years old, 64.32% were farmer and gardener, 68.75% obtained the primary education; 63.80% obtained the income in amount of 5,000 – 10,000 Baht per month, 79% were married, 89.32% had the 1-2 caretakers; 39.84% of the caretakers were children of the patients, 53.10% of the patients were the second child of family, 93.75% did not have any DF patient in the previous 5 years while 6.25% did, 90.10% did not have any experience on providing care for DF patients while 9.90% did, and 79.43% knew the diagnosis of DF patients.

5.1.2 Factors related to the prevention of DF

To prevent DF, 84.90% of the caretakers received the advice from the public health volunteers (PHVs); 87.76% learned about the DF from television while

82.03% from the doctors, nurses and public health officers. Persons participating in the prevention of DF were PHVs (79.17%) and family members (73.44%).

5.1.3 Knowledge on DF

When ranging the knowledge on DF, 84.90% of the caretakers had the knowledge in the high level and 15.10% in the medium level. The average score was 8.91 from the maximum score of 10 points while the minimum score was 6. In addition, 100% of the caretakers knew that the *Aedes aegypti* mosquito was the vector of DF whereas 97.40% knew that the DF could be infected when mosquito bit the DF patients.

5.1.4 Perception of susceptibility and severity of DF

The perception of susceptibility and severity of DF was in the medium level (73.44%) and in the high level (26.56%). The average score was 63.96 while the maximum score was 80 and the minimum score was 51. In addition, 46.35% of the caretakers strongly agreed to allow the public health officers to spray Ultra Low Volume (ULV) in the house to prevent the DF while 39.84% strongly agreed that the local public health officers should be immediately informed when there were the DF patients.

5.1.5 Performance related to the prevention of DF

The performance related to the prevention of DF was in the high level (51.30%), in the medium level (37.50%) and in the low level (11.20%). The average score was 28.10 while the maximum score was 36 and the minimum score was 0. In

addition, 72.92% of the caretakers always prevented the patients from being bitten by the mosquito while 69.79% eliminated the larvae sources more frequently when there was the DF patient at home.

5.1.6 Evaluation of the performance for prevention of DF

Concerning the evaluation of the performance for prevention of DF, 40.89% of the caretakers used abate sand while 38.02% turned the coconut shells upside down. When surveying the mosquito larvae in the house of the patients via observation, 62.24% of the patient houses had the mosquito larvae; 63.54% of the patients were bitten by the mosquitoes during their recovery period while 80.47% of the patients avoided being bitten by the mosquito. Namely, 69.01% of them slept under bed net while 32.55% used the traditional mosquito repellent.

While, 42.79% of the caretakers prevented the patients from being bitten by the mosquito were the housewives; 67.19% turned the coconut shells upside down, 45.84% used the abate sand. The assistant caretakers consisted of the family members, namely, mothers (55.47%) and fathers (46.35%). Concerning the activities performed on the prevention of DF in the family, 29.16% surveyed the mosquito larvae every 7 days; 24.29% surveyed the mosquito larvae both in the house and surrounding areas; 51.56% surveyed the mosquito larvae with the public health officers while 34.38% sprayed ULV.

5.1.7 Relationship between personal data and factors related to prevention of DF of the caretakers

Concerning the relationship between personal data and factors related to the knowledge on DF, age was related to the knowledge level with the significance at 0.05 ($P= 0.041$). The relationship between the personal data and factors related to the perception of susceptibility and severity of DF indicated that the education was related to the perception of susceptibility and severity of DF with the significance at 0.05 ($P= 0.001$). The relationship between the patients and the caretakers was related to the perception of susceptibility and severity with the significance at 0.005 ($P = 0.029$) may be in corrected data from misunderstood of responders.

Concerning the relationship between the personal data and factors related to the performance for prevention of DF, age was related to the factors related to the prevention of DF with the significance at 0.05 ($P= 0.028$) whereas the income was related to the factors related to the prevention of DF with the significance at 0.05 ($P= 0.016$).

Knowledge level of DF was related to the performance for prevention of DF with the significance at 0.05 ($P= 0.006$)

The perception of susceptibility and severity of DF was related to performance for prevention of DF with the significance at 0.05 ($P= 0.001$).

5.2 DISCUSSIONS

The personal data of the responders in this research were similar to the data of people in rural society of Thailand, that is, women usually provided care for the patients whereas their husband would work to earn the family. Most of the caretakers

obtained the primary education and worked as the gardeners, namely, Trang people were the rubber gardeners. The caretakers did not know that the patients were suffered from DF (20.57%) although this was quite important for patients and caretakers to know so that they could perceive their own sickness (Medical Council, 1997). In addition, knowing nothing about the disease could endanger the disease prevention, especially in case of DF.

Factors related to the prevention of DF were associated with persons who were community members such as public health volunteers (PHVs) and family members of the patient, including the government officers working at the hospital or the public health center. Television was reported to be the most accessible source of news and public relations.

While 84.90% of the caretakers received advice on the prevention of DF from public health volunteers (PHVs) because the PHVs were not only provided the advice on the prevention of DF but also acted as the assistants of the public health officers. As one PHV was responsible for the health of 12-15 households. Moreover, the development of potential and knowledge of PHVs could enhance the trust of villagers. The relationship and the intimate attention enhanced the mutual care in the community as well.

As 64.32% of the caretakers received the advice of prevention of DF from the doctors, nurses or medical team and 21.35% received the advice from their relatives getting the advice from the doctors, the caretakers did not know the problems directly. Ideally, advice should be provided for all caretakers. It may be the doctors and nurses did not have enough time to provide care for the caretakers. However this problem should have been improved.

Concerning the information sources, 87.76% of the caretakers received the knowledge on DF from television. As television was the most accessible media of households, television was used to provide the health information for the villagers. This finding was in accordance with the study of Marumdee & Somboonphol (2001) evaluating the public prevention and control of DF project on the occasion of 72nd Anniversary of His Majesty the King on 5 December 1999 in 1999-2000 in Suphanburi Province. This study indicated that 90.1% of people obtained the information on DF from television (62.5%) and public health officers (60.3%). In addition, information on the disease prevention from the doctors, nurses and public health officers (82.03%) was still important when there were DF patients. To help the patients from the critical situation, doctors, nurses and public health officers would work to investigate, prevent and control the disease in community. In addition, the public health volunteers (PHVs) and family members were also the important persons, who took participation to prevent DF for 79.17% and 73.44%, respectively.

However, only 29.69% of the community leaders participated in the disease prevention when compared with the policy established by the Department of Disease Control having the goal to encourage the community leaders to lead the local DF prevention and control.

Concerning the factors related to the caretakers providing care for DF patients, the levels of knowledge on DF could be ranged as follows: Most responders had knowledge on DF in the high level (84.90%) and in the medium level (15.10%). The average score was 8.91 while the maximum score was 10 and the minimum score was 6. While, 100% of the responders had the knowledge that the *Aedes aegypti* mosquito was the vector of DF while 97.40% had the knowledge on the infection of DF. This

implied that the responders had the sufficient basic knowledge on DF, which could lead to the performance for prevention of DF. The result was in compliance with the research of Suwannit (2002) studying the health care of themselves of Thai family when healthy and sick. Health problems found consisted of DF (2.9%) while 93.9% of the responders knew the prevention of DF; 84.7% knew the prevention from being bitten by the mosquito; 76.8% knew how mosquitoes grew up; 83.8% knew the care provided for the patients; and 23.2% knew that the patients should not take aspirin medicines. The research results were in accordance with the study of Marumdee, S & Somboonphol (2001) evaluating the public prevention and control of DF project on the occasion of 72nd Anniversary of His Majesty the King on 5 December 1999 in 1999-2000 in Suphanburi Province. This study indicated that people had knowledge and perception on DF (59.7%), realization on disease (79.1%), knowledge on the weekly elimination of mosquito larvae (95.1%) while 51.9% of people closed the water jars.

The perception of susceptibility and severity of DF was the other factor providing the awareness to persons related to the patients for prevention of DF. As DF could kill the infected patients, knowledge and understanding could be provided for general people, risk groups and all persons responsible for disease prevention. The good guidelines of the disease prevention were depending on the knowledge and understanding on DF. In addition, the understanding of susceptibility and severity of disease could also provide the realization and prevention. For this research, the caretakers had the perception of susceptibility and severity of DF in the medium level (73.44%) and in the high level (26.56%). The average score was 63.96 from the maximum of 80 while the minimum score was 51. In addition, 46.35% of the

responders strongly agreed that the public health officers should spray ULV in the house and surrounding areas for the prevention of DF; 39.84% strongly agreed that the local public health officers should be informed if there was the DF patient. About the statement that the role of larvae elimination should be the responsibility of PHVs, 12.76% strongly agreed while 27.34% agreed with the statement; totally 40% agreed that larvae elimination should be the role of PHVs . This implied that the perception of susceptibility and severity was not sufficient for the encouragement of disease prevention. People still thought that the disease control and prevention should be rather the responsibility of the public health officers. Moreover, 2.08% strongly agreed and 10.94% agreed; totally 13% of the responders agreed that they were indifferent when they found mosquito larvae in their houses implying that the responders were not active to get rid of the mosquito larvae.

All factors mentioned above were studied by the researcher to analyze the performance of the responders for prevention of DF. In fact, the prevention of DF in the local areas could be performed well. The study also indicated that the performance for prevention of DF were in the high level (51.30%), in the medium level (37.50%) and in the low level (11.20%). Thus, the researcher should pay the attention to the continuous performance. The lack of practices also led to the epidemic of DF. According to the data, 72.92% of the caretakers prevented the patients from being bitten by mosquito while 69.79% got rid of the larvae sources more frequently. The data should be used to establish the guidelines for the prevention of DF. In fact, only 65.63% of the caretakers would eliminate the mosquito larvae immediately. If not, the larvae would be grown to the mosquitoes, which were the vector of dengue viruses. In addition, only 27.86% of the caretakers surveyed the mosquito larvae every 7 days;

39.06% closed the jar covers while 24.22% did not. This, therefore, implied the carelessness on the vector sources.

Additionally, when the assistant researchers evaluated the performance results for the prevention of DF, 40.89% of the caretakers used abate sand while 38.02% turned the coconut shells upside down. Such performance was not enough and the disease prevention should be provided more strongly. When surveying the mosquito larvae in the house of the patients via observation, 62.24% of the patient houses had the mosquito larvae. According to the interview data, 63.54% of the patients were bitten by the mosquito during care at home. So, the mosquito could spread disease to other people. In addition, 80.47% of the patients avoided being bitten by the mosquito; 69.01% slept under bed net while 32.55% used the repellent because these methods could be done easily and conveniently. Concerning the measures performed to eliminate the mosquito larvae promptly, 69.71% turned the coconut shells upside down while 45.84% used the abate sand. Concerning the activities performed on the prevention of DF in the family, 29.16% surveyed the mosquito larvae every 7 days; 19.53% did not protect themselves while 24.29% surveyed the mosquito larvae inside and outside the house. The data from observation and questionnaires were quite similar. For example, 12.50% of the patients did not sleep under bed net while 21.09% did not close the jar covers.

When studying the factors related to prevention of DF of the caretakers and the relationship between personal data and factors related to the knowledge on DF, age was related to the knowledge level with the significance at 0.05 ($P= 0.041$). Concerning the relationship between personal data and factors related to the performance for prevention of DF, age was related to the factors related to the

prevention of DF with the significance at 0.05 ($P= 0.028$). This could be explained that the majority of responders were 30-39 years old (32.03%) and 40-49 years old (32.03%) and they were responsible for the family. These responders at these age groups could have many experiences in daily life also care for patient. The result was in accordance with the research of Chomchoeynititham (1990) studying the efficiency of health program on the prevention and control of DF of mothers having children aging 5-9 years old in Nonthaburi Province. The researcher found that the factors related to age and education was positively associated with the practices of mothers on the prevention and control of DF.

Concerning the relationship between the personal data and factors related to the perception of susceptibility and severity of DF, education was related to the perception of susceptibility and severity of DF with the significance at 0.05 ($P= 0.001$). It could explain that from diploma degree high level of perception of susceptibility and severity was increase while most of them (68.75%) obtained the primary education having medium level. The result was in accordance with the research of Walaisathien (2001) studying the opinions, knowledge, understanding and practices in the prevention and control of DF in the high risk areas in Surin Province. The researcher found that the control and elimination of vector sources were significantly related to the education.

Income was related to the factors related to the performance for prevention of DF with the significance at 0.05 ($P= 0.016$). The majority of the responders (63.80%) obtained 5,000 – 10,000 Baht per month implying that income of most responders was enough for essential daily life such as food water supply telephone calls etc.; they must save for their expense all a month, so they beware for their health. If someone of

their families were sick, they may have no money to pay for medicines. The DF was the serious diseases of their opinion. It took many days for curing and the expense also would be increased. Thus, they were interested in their health and their family health includes prevention of DF. More income, they could pay for some sources of information such as books, newspaper, television etc. that may make them higher experience for their practices.

Knowledge level of DF was related to the performance for prevention of DF with the significance at 0.05 ($P= 0.006$) while the perception of susceptible and severity of DF was related to the performance for prevention of DF with the significance at 0.05 ($P= 0.001$). This could be explained that as the responders had the knowledge and danger of DF, they would realize the risk and severity of the disease leading to the good prevention of DF. This result was consistent with the research of Usaha & Sakchainanon (2001) studying the factors affecting the prevention of DF of overall people. The researcher found that the belief on severity of DF was positively related to the prevention with the significance. The research was also in accordance with the research of Chomchoeynitham (1990) studying the efficiency of health program on the prevention and control of DF of mothers having children aging 5-9 years old in Nonthaburi Province finding that the age and education were positively related to the practices in the prevention and control of DF. The research was even consistent with the research of Sae Ung (1992) studying the efficiency of health program on the behaviors of DF prevention. In this research, the Health Belief Model was applied with the social support from teachers and father/mother. The research revealed that the applied health belief model could change the behaviors in the DF prevention of Grade 6 students.

For the researcher, the performance for prevention of DF that is vital to the success of disease prevention could be performed regularly by family and community members. Results of this research are instrumental to the development of guidelines for the prevention of DF in Trang Province in some extent.

5.3 RECOMMENDATIONS

5.3.1 Recommendation

(1) The study results indicated that the caretakers had knowledge in the high level, but performance in medium level (37.50%) and low level (11.20%). Although the performance were less percentage in the low level, the performance was very important to the prevention of DF because if people were bitten by mosquito or there were the mosquito larvae in house, the disease could spread. Thus, it should be emphasized on the necessity, cooperation and measures of the community in the community meetings; for instance, people will be fined if the mosquito larvae are found.

(2) Information on sickness and prevention should be provided to caretakers by doctors and nurses, but only 21.35% of the caretakers received such information. Doctors and nurses, therefore, should be trained and given more responsibility for educating caretakers on disease prevention. In general, patients and caretakers usually follow instructions of doctors, thus, doctors and nurses were important in the prevention of DF.

(3) The community should take up more roles and responsibilities in the prevention of DF. At present, however, community leaders still focus on the development of infrastructure such as roads, water wells, and

constructionforconstruction for the community. Only a few community leaders have used the issues of health and disease prevention in the community development. Public health authorities must initiate dialog with community leaders, and perhaps with the Ministry of Interior in encouraging the leaders to be more active in disease prevention in the community.

(4) Because prevention of DF is everyone's responsibility, there should be activities or meetings to ensure that all parties understand this, especially households with DF patients and/or mosquito. In addition, people should understand DF prevention is the sole responsibility of the PHVs and the public health officers.

(5) PHVs are the most important in the community in the prevention of disease. Activities such as re-orientation or refresher training, meetings, case conference and knowledge should be given to them periodically. also In addition, home visit of PHVs at least once a week to encourage villagers for destroying larvae could yield a good result.

(6) Hospital tourHospital tour for villagers who had never seen children who were suffering from DF could be introduced as a measure to increase awareness of severity of DF disease might increase collaborations in the community. A tour of children ward in the hospital tour for villagers who never see DF patient might increase their participation in the prevent of DF.

(7) In this research, only the responders, who were the main caretakers, were selected. However, according to the data collection and rural lifestyle, DF could lead the patients to death. As a result, all members of family and community should participate in health care. For example, if the patient is a child, the aunt or grandmother may provide care for the child together with the mother.

However, the researcher did not study the measures established for the prevention of DF.

(8) In this research, the data were collected during the epidemic of DF in Trang Province, thus, the factors related to the measures of DF of the responders could be studied and monitored. However, this might lead to the prejudice in terms of the knowledge and good practices as the responders might obtain the advice from many sources. In addition, the prevention of disease should be continuously performed.

(9) The researcher had limitation time and had to allow the assistant researchers to collect the data due to the inconvenience. Therefore, the details of the data might be varied due to the understanding levels of each assistant researcher.

(10) Revised policy such as home visit of health officers after DF patients were discharged from hospital or out patient case could be implemented. The home visit should survey both inside and outside of the houses , and provide advice on how to care for patients , prevention from vector , destroy larvae and vector, sleep under bed nets could be given. One policy should be enforcement that if any houses have larvae must be pay for fine.

(11) Encourage education, higher education for PHVs make them are respected by villagers, they may take more participation for controlling DF and other health problems in village more than this day.

(12) Because television appears to be the best way for people to access many information, although it is very expensive for advertising, the Ministry of Public Health should invest more on developing messages on DF prevention on TV. Television can deliver information throughout the whole country with single

broadcasting. Also, cable television is another choice for some city or town, it costs less or none. Provincial Public Health Office should consider this approach.

5.3.2 Suggestions for further research

(1) The community practices should be studied more when there is the DF patient in the community so that the entire belief and practice system is understood. Because the community usually has the different measures in the prevention of DF, the practices of the community members may be vary accordingly.

(2) In-depth understanding of the community suggests that qualitative data should be more valuable in order to identify how to encourage a better performance.

(3) Quasi research should be more study if input with some interventions such as home visit by PHVs or concentrate knowledge and advice.