CHAPTER V
DISCUSSION AND CONCLUSION

This chapter is comprised of four parts. The first part summarized major findings from the study and discussion. The second part covers limitations and suggestions for further study. The last part contains the conclusion of this study.

5.1 Major Finding and Discussion

This study utilized survey research using face-to-face interviews conducted with a structured questionnaire. The study samples were poor households that visited a community pharmacy with commonly found symptoms, which were grouped anatomically. Catastrophic health expenditure was often found among the poor (Naranong et al., 2007). The three public insurance schemes in Thailand do not cover all round service fees from community pharmacies. As a result, self-medication leads to out-of-pocket payment, affecting the socioeconomic and daily expense of households, especially poor ones. The above were reasons for choosing to study poor households.

This study was conducted in one community pharmacy. The study site was a community pharmacy located in the front of a market in a municipal area of Mahasarakham Province. The selection of the site was based on the purposive sampling method, and also because it was certified as a "Quality Drug Store", approved by the Thai pharmacy council in cooperation with the Thai Food and Drug Administration (Thai FDA). The pharmacist at this community pharmacy was on duty during the data collection period each day. In addition, because the study site was located in a municipal area of the province, there were numerous customers, who were mostly from moderate to poor socioeconomic backgrounds. Another major reason for selecting this community pharmacy was the cooperation in sharing information between pharmacists and the researcher.

The primary instrument used in this study was a questionnaire used for the interviews to collect socioeconomic and health profile data. The researcher developed

the questionnaire. Some items of the questionnaire were generated from reviews of two national surveys, namely Socio-Economic survey (SES) 2007 and Health and Welfare Survey (HWS) 2006, which were developed by the National Statistical Office of Thailand. Some items from this review were used because the data from self-assessment could reflect an illness, leading people to seek health services by themselves instead of being assessed by medical personnel. Therefore, the framework of the SES and HWS was used to define items in the socioeconomic and health profiles parts of the questionnaire. In addition, the researcher added items regarding details of visitations to the community pharmacy. Five experts experienced with socioeconomics evaluated the study.

The study was conducted for the three-month period from May to July 2009. Data was collected between 8.00 am and 7.00 pm each day. Collecting data during this time every day had the advantage of covering all customer groups. Further reasons for choosing this long period were (1) If data was collected only in the morning, it would not include the poor that regularly work because they couldn't be absent from work, and (2) If data was collected in the evening only, it would only include the poor that had regular work.

When the customers who visited the community pharmacy with one of the six studied symptoms, the pharmacist recorded details about the type of services, diagnosis, drugs received (type, amount, and price), and if a referral was necessary. Then the pharmacist referred to the researcher who would ask willingness to screen for poor household status. Screening poor households was done in this study to determine poverty status, using household information. Limwattananon et al 2005 suggested the items, which were used to guide the inclusion of the poor into the study. Households were considered poor if they had three out of eight poverty indicators, determined by interviewing a yes/no question format.

The researcher considered other data from probing question for checking part of the screening that involved volunteers answering questions asked by the researcher. An open-ended question seeking the number of members in a household and ways of earning a living was used to re-check the question for the poverty indicator "too few family members with income" and "bearing burden of family dependents". Furthermore, the question regarding occupation was asked before the part of

screening to re-check "lack of working knowledge and skills" and living from "hand to mouth". The question about ownership of immovable and movable property/possessions was used to re-check "no assets". If those that met inclusion criteria were willing to be study participants, their data was collected.

The socioeconomic part of the questionnaire had many details about expenses, income, debt, and financial status. Thus, the person who answered the questions should have been responsible for household expenses. When the person was not the breadwinner, the researcher would inquire about the willingness of the breadwinner to be included in the study. Nevertheless, all of the sample groups of this study that were interviewed were responsible for household expenses. Because this community pharmacy was located in the front of the market in a municipal area, those who visited might also go to the market together. In addition, the majority of people who went to the market might be breadwinners. Details of visitation included symptoms, types of service, diagnosis, drugs received (type, amount, and price), and if a referral was necessary. The pharmacists recorded these details on paper and then sent them to the researcher. The researcher added notes with these details on the questionnaire.

All information from this study was from interviews of the sample groups, thus the adequacy of this information was important. The researcher used random checks to ensure adequacy of information, and visited their houses by random. The researcher observed residential characteristics and living conditions. In addition, the researcher requested to check water bills, electrical bills and tuition receipts, as well as documented debt information. The researcher found that the information gleaned from interviewing people was supported by the information from their documents. They were willing to show their documents to the researcher, who promised to keep the information within confidential.

The researcher performed interviews with all of the sample groups independently. However, the questionnaire results were structured results that decreased inter variability from the interview and the collected data. The researcher found some obstacles between interviewing and collecting data. The majority of sample groups often had low education and provided irrelevant answers, necessitating lengthy of the issues by the researcher. As a result the interview time averaged from 38 to 50 minutes per person.

Additional findings from the study are described below.

5.1.1 Health and medication profiles of poor households receiving services at a community pharmacy

For every group of the complaint symptoms, the most frequent services received at the study pharmacy were pharmacist-initiated medication, except for gastrointestinal tract symptoms with self-requested medication. The latter case was associated with gastric ulcers. There were no doctor's prescriptions brought to the pharmacy, except for gastrointestinal tract symptoms. Accordingly, the treatment before visiting the pharmacy least often was the visit to a primary care unit, a government hospital, or a private clinic. Most people chose taking medications at home or buying from drug stores rather than at the primary care unit, government hospital, or private clinic. The poor did not to go to the private clinic because the cost was unaffordable.

The members of poor households suffering from fever/headache and gastrointestinal tract symptoms usually waited for a day before visiting the pharmacy. For the duration before visiting the pharmacy with a complaint of throat/nose symptoms, skin symptoms, and joint/back/musculoskeletal pain was relatively longer. This was because fever/headache and gastrointestinal tract symptoms were a major concern which affected the body and quality of life a great deal and had to be cured immediately. None of the symptoms were considered so severe for the pharmacy to have a hospital referral.

5.1.2 Illness experience and health utilization prior to pharmacy visits

The majority of those who did not seek care from health facilities did get medical treatment, but they did not choose a government hospital as the health care choice. Instead they chose self-medication, followed by traditional medicine and private clinics. The major reasons for not choosing the government hospital were non-serious afflictions and long waiting times during the hospital visit. Hence, the opportunity cost plays an important role of choosing the treatment mode despite the free care provided by the government hospital.

5.1.3 Out-of-pocket payments for standard medical treatment and ability to pay for services

For fever/headache, throat/nose symptoms, skin symptoms, joint /back/musculoskeletal pain and gastrointestinal tract symptoms had median of out-of-pocket expense of ([Med (IQR)]: 25.0 (37.0), 39.0 (30.5), 40.0 (30.0), 30.0 (20.0), 30.0 (15.0), respectively. This corresponded with the Thai report of expenses for self-medication in the fourth quarter of 2002, which stood at 14.63-111.24 baht/person/month (Vasavid et al, 2005). The expenses for getting standard medical treatment were [Med (IQR)]: 30.0 (50.0), 25.0 (37.0), 35.0 (20.0), 60.0 (15.0), 170 (0.0), respectively. On the other hand, the median value of the maximum ability to pay for standard treatment, for every symptom was 100 Baht. This amount was higher than the median of the expense paid in order to get standard medical treatment. This signified that households could afford out-of-pocket payments in order to get standard medical treatment for all group of symptoms, except for gastrointestinal tract symptoms. This number also corresponds with the percentage of households that could not afford the highest pay rate for standard medical treatment. The figures were as follows: The gastrointestinal tract group of symptoms (63.6%) had the highest gap between the ability to pay and standard medical treatment and was equal to 81.0 Baht (IQR 51.0). However, in other group of symptoms, with the median of expense for standard medical treatment less than the median of the highest ability to pay, some household still could not afford for standard medical treatment. The percentages for remaining groups are as follows: Throat/nose symptoms 25.5%, fevers/headaches 13.8%, joint/musculoskeletal/back pain 9.1%, and skin symptoms 7.6%.

5.1.4 Impact of out-of-pocket payments for the pharmacy services and for the standard medical treatment

Regarding the impact of out-of-pocket payments made to a communitypharmacy, the interview shows that those made for standard medical treatment most affected savings and daily life. When compared to the actual cost of visiting a community pharmacy, for all groups of symptoms, it was found that most were not affected in any way. These results showed that even those households that came to a community pharmacy could afford out-of-pocket payments in order to get

standard medical treatment (except for the gastrointestinal tract group of symptoms); they were still affected by expenses for standard medical treatment in all groups.

The following are demographic and socioeconomic profiles of those impacted by out-of-pocket payments for standard treatment, which affected daily consumption/living as well as savings and coping strategies. The majority were covered by UC. The majority of those affected had chronic diseases, mostly diabetes, hypertension, and gastric ulcers. The average number of members in each household was approximately 4. Most of them had completed a primary school education. The majority of occupations were agriculture or farming. Regarding economic status, the median household monthly expense was more than the median income. More than 70% of those impacted were indebted. Nearly all (>90%) were carrying economic burdens for their households. More than 60% had borrowed money from others during the past 12 months. Less than half had savings. Their saving patterns were inconsistent.

The following is a summary of illness experience and health utilization prior to pharmacy visits of those impacted by out-of-pocket payments for standard treatment that affected daily consumption/living as well as savings and coping strategies. The average number of services within a month prior to pharmacy visits was one. The majority of those who suffered from an illness during the month bud did not seek care from health facilities found that coping strategies were affected 53.4% of the time, daily consumption/living 51.4% of the time, and savings 46.1% of the time. The majority of those who did not seek care from health facilities had a prior visit 1.1-1.2 times per month. Most of those who did not seek care from health facilities had joint and musculoskeletal symptoms. Most of those impacted (approximately 70%) did not stop working. Most of them ($\geq$ 80%) received medical treatment and did not go to a government hospital. The main reasons for not choosing a government hospital were minor sickness and long waiting time. The treatment chosen included self-medication (> 75%), followed by private clinic visits (14-18%). For those who received services at government hospital (approximately 20%), they went to a primary health care unit or to a general hospital. The majority (nearly 90%) of those impacted had not been admitted to hospitals in the 12 months prior to the pharmacy visit. Those who were hospitalized found that daily consumption/living

was impacted 7.5% of the time, savings 7.3% of the time, and coping strategies 12.1% of the time. The average number of admissions was one. Most of them went to a general hospital.

5.2 Study Limitations

There are some limitations to this study. First, the scope covered only Mahasarakham Province.

Second, the price of medication was determined by the price at the studied community pharmacy. Therefore, if studies had been conducted at other community pharmacies, it might have affected out-of-pocket expenses and other results.

Third, the average expenses that poor households could afford for each of the five groups of symptoms were analyzed by calculating the average price of dispensed medication. However, this should ideally be calculated by average expense for disease rather than groups of symptoms.

5.3 Suggestions

The study results demonstrated that most poor households were able to pay out-of-pocket for the drugs received from the pharmacy and for standard drug treatments, except in the case of gastrointestinal tract symptoms. Such payment affected the household savings and daily life.

It is impossible to extend the results of this study to cover poor households across the country that visited community pharmacies. Therefore for further research, it is recommended that data collection be done nationwide. Furthermore, practice guidelines for common symptoms during the pharmacy visit should be established. Research specific to particular disease should be performed. Future studies should define reference prices for medication because its impact on of out-of-pocket expenses for every household visiting community pharmacies could be determined in the same way. To control bias, socioeconomic influence and practice patterns of pharmacists should be investigated together by simulated client method.

5.4 Conclusions

The purpose of this research was to study socioeconomic and health profiles of poor households visiting a community pharmacy. The findings indicated that most poor households were able to pay out-of-pocket for drugs and for standard treatments, except in the case of gastrointestinal tract symptoms. Such payments affected the household savings and daily life the most, which supports the decision of health policy makers who provide health services for the people.