

CHAPTER VI

ANNOTATED BIBLIOGRAPHY

The content of this chapter is about methods to access information to collect reference materials and annotate these materials in terms of their contribution to the argument and relevance of my work.

6.1 Search method

I started collecting reference material by searching www.yahoo.com using *rational use of drug* as the keyword 23629 web pages were found. Then I used *rational drug prescribing*, *rational prescribing*, *prescribing behavior*, and *prescribing practice*. No matches were found, so *drug use problem* was used as a keyword. It was found that most of the studies are about alcohol and addiction, which did not match this study.

I searched Medline again using *rational use of drug* as keyword. 647 items were found. The keyword was changed to *rational drug prescribing* and 121 items were found. Then the following keywords: - *prescribing behavior + health center + Thailand*; *prescribing behavior - health center* and *prescribing behavior + Thailand* were tried. But no items were found. I then used *prescribing behavior* and found 176

items and also used *prescribing habit* and found 12 items. By using *rational prescribing*, 144 items were identified. I also used *prescribing + practice + health center* and *prescribing + practice* and found 313 items.

I also searched the electronic journal, www.bmj.com. This site contains the full text of all articles published in the weekly BMJ.

All of the above mentioned gave a clearer view about rational use of drug situation. I now understand more of the scope of the area of rational use of drugs.

Also, the chulalinet database of Chulalongkorn University was searched and several libraries were visited: - Faculty of Pharmaceutical Sciences, Chulalongkorn University; Faculty of Pharmacy, Mahidol University; Food and Drug Administration, Ministry of Public Health; Rural Health Division, Ministry of Public Health; and World Health Organization.

I found three studies focused at the health center level and contacted the authors and discussed their work with them.

I also attended a training course on *Promoting Rational Drug Use*, 7th Asia Regional Course, 6-18 June 1999, Ayutthaya, Thailand where more knowledge and skill on rational use of drug was gained. The training was very useful and I discussed the issue with trainers and other trainees and learning broader ideas.

Annotated bibliography

Apotekarsocietetens forlag. (1992). Auditing drug therapy. Stockholm, Sweden: Swedish Pharmaceutical Press.

This book is the proceeding from an international symposium organized by Apoteksbolaget AB during October 24 - 25, 1991. The book contains 15 articles written by experts from the Netherlands, Norway, Sweden, U.S.A., Indonesia, and Northern Ireland. The issues are divided into four parts: background on rational drug therapy; available methodology; special topics; and auditing drug therapy in primary health care.

This book provided me very valuable information on international experience on the issue. The part of auditing drug therapy in primary health care, especially on peer-review audit and self-audit, lightens my intervention development.

Chaudhury, R. R., & Tripathi, C. D. (1997). Introduction to rational use of drugs. New Delhi: Narosa Publishing House.

The book provides the framework of concept and practice of rational use of drugs and was written to be used by teachers and undergraduates who participate in the training course on rational use of drugs. The contents of the book are divided into two sections.

In the first section there are twenty topics essential in the training program. In each topic the specific objectives and approach were described. The topics are:

1. concept of rational use of drugs
2. selection of essential drugs
3. therapeutic decision making between alternative drugs
4. rational prescribing
5. critical appraisal of efficacy of drugs
6. assessing pharmaceutical drug information
7. sources of objective drug information
8. clinical trial methodology
9. bioavailability of essential drugs
10. monitoring of adverse drug reactions
11. therapeutic drug monitoring
12. procurement and distribution of essential drugs
13. economic use of essential drugs
14. legal and ethical issues involved in use of drugs
15. problem solving exercises in rational use of drugs
16. problems of irrational use of drugs
17. sampling for drug use studies
18. methods for changing drug use patterns
19. use of hospital formularies
20. how to develop a rational drug use program (RUD)

The second section of the book is a possible strategy for implementation of a training program on rational use of drugs.

The book not only provided me a guideline on rational prescribing of drugs, but also was very helpful in preparing the conceptual framework.

Klanarong, Mayuri. (1998). Antibiotics used by the health center officers in upper respiratory tract infection, Samut Songkhram Province. Samut Songkhram: Provincial Health Office. (Thai language).

This is an experimental research, which studied how health center officers use antibiotics for upper respiratory tract infection (URI) patients along with standard treatment; and treatment expenditure. It was found that most of the health officers were trained on URI standard treatment. And they used antibiotics along with standard treatment. The researcher arranged a refresher course for a group of health center officers. The results also showed that there was increasing use of standard treatment and decreasing treatment expenditures.

The study recommended that there should be refresher course for the health officers on the standard treatment. And drug use should be monitored and evaluated continuously.

The study provided an example of a situation at the health center level. It showed that irrational use of drug is quite a common problem. It confirmed that an educational way is still an effective way of problem solving. It was very useful for me in the stage of intervention design.

Quick, J. D. et al. (Eds.). (1997). Managing drug supply: The selection, procurement, distribution, and use of pharmaceuticals. (2nd ed.). West Hartford, Connecticut: Kumarian Press.

This manual is aimed at serving health policy-makers and the staff who manage drug systems and the drug use process. To support policy-makers' choices for action, the focus of the manual is on management of essential drugs and the problems faced by policy-makers and managers. The tools and ideas discussed in the manual are based on those used in the most developed countries. The manual is divided into four parts: the introduction, policy and legal framework, drug management cycle, and management support systems.

I found the manual very practical and suitable in many aspects: promoting rational prescribing; managing for rational drug use; investigating drug use; drug and therapeutics information; good dispensing practices; and appropriate drug use by the public and patients.

Satayavongthip, Woottipong. (1995). Factors affecting drug cost in big health centers, Nakhon Ratchasima Province. Master's thesis, Mahidol University, 1995. (Thai language).

The objectives of the thesis are to analyze the average drug cost per visit of patients in big health centers, and to study factors affecting cost of drug utilization. The study found that patients' characteristics associated with the cost of drug utilization

were sex, age, disease, and patient class. The study also recommends further study on prescribing habits of health center personnel regarding rational drug use.

This is the only material, I found on the study of drug use indicators at the health center level in Thailand. It provided a useful overview about drug utilization, patients' characteristics, and drug cost, all of which are some of the factors affecting rational use of drug.

Wattana, Kwanroen. (1991). The capacity of health center officials in drug management: A case study at Chonburi Province. Master's thesis, Mahidol University, 1991. (Thai language).

This is a survey research to study medical supply management at the health center level, Chonburi Province. The research found that the health center officials had high capacity in medical supply management. The only factor, which related to the capacity, is salary. There is no relationship between capacity and demographic factors, and socio-economic factors. It was mentioned that the sample of the study recommended that there should be a person responsible for medical supply management because this task consumed much time.

This work reminded one of the many tasks for which health center officials are responsible. And it helps to frame my proposal more carefully.

Wibulponprasert, Suwit. (Ed.). (1994). Thai drug system. Bangkok: Arund Kran Pim. (Thai language).

Eight working groups wrote this book. It addresses the drug situation in Thailand and analyzes the drug system in Thailand. Contributions cover national drug policy; drug selection system; drug industry development; drug procurement and distribution; drug use; legal system and organizational structure; drug information system; herbal and traditional drug system.

The book gives interesting overview information, which is very helpful in analyzing and understanding the drug issues in Thailand.

Wibulpolprasert, Suwit., & Sricharoen, Vorawan. (Eds.) (1996). A brief report on the evaluation of the decade of health centers development project 1996. Bangkok: Veterans Organization Printing Office.

The report aims to provide results of the evaluation of health centers under the decade of health centers development. It is the fourth volume of the project report, which consists of four volumes. The first volume is on future of Thai health centers: an overall aspect. The second volume is on evaluation of the progress of the decade of the health center's development projects. And the third volume is on development of health centers in the general and specific localities.

The summaries of important points are major overall aspects; conceptual framework and image of first-line health services in the next two decades; image of health centers in the next two decades; and recommendations on the strategies and tactics for health centers development.

I found the report useful in the aspect of administration. The evaluation and recommendation broadly mentioned health manpower problems and development. But there is no special identification of technical issues such as quality of treatment.

World Health Organization. (1993). How to investigate drug use in health facilities. Geneva: World Health Organization.

This manual is a part of a series reporting on the Action Program on Essential Drugs, World Health Organization. It focuses on the design and implementation of a basic indicators study to describe treatment practices, and on how this basic design should be changed to allow for a comparison of regions or facilities. The manual describes the selected indicators and details the methods for their collection and analysis. It contains six sections: overview; definitions and method; study design and sampling; study planning and field methods; analysis and reporting; and follow-up activities.

This manual provided me a means to describe the drug use situation in a health facility, which can be compared between situations in different areas or at different times. I found this manual extremely practical and helpful in developing the proposal.