Health Care of Villagers in Northeast Thailand — A Health Diary Study —

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Summary: A one-month health diary was used as a research instrument for measuring health care in the northeastern rural area of Thailand during the month of November, 1992. Three hundred forty-five respondents, which represents 22.2% of the total households in 12 villages from 2 districts in the Khon Kaen province of northeast Thailand, completed the health diaries. Self-medication was most practiced for health care (37.5% of ill persons) followed by health service utilization at local health center (19.4%), at community hospital (11.4%), at private clinic (11.4%), and by "wait and see" (9.0%). Analgesics were the most frequently used drugs for relief of fever, headache, common cold and abdominal pain. The use of a combination of drug (eg. a cocktail) was common as self-medication for relief of back and leg pain. Traditional or herbal drugs were a frequently chosen alternative for self-medication, both in adult and children. The authors suggest that the villagers should be educated concerning drug hazards in order to increase their background knowledge on drug use.

Key words: illness behavior — self-medication — health service utilization — health diary — northeast Thailand

Introduction

For a holistic, or whole-person, approach to the population's health, health care providers need to have information on the occurrence of health problems and on the psychosocial aspects of illness and health care, which is commonly called 'illness behavior' in medical sociology. Illness behavior refers to how people perceive symptoms, assess their severity, and decide what to do to relieve or cure illness, as well as to their ability to take action (Verbrugge, 1989). However, it is not easy to obtain a full

picture of morbidity and health actions of a population because only a small part of the relevant data become available through the contacts of people with the health service, while the majority of symptoms are not documented in medical records, and many curative behaviors occur without medical consultation (White et al. 1961; Verbrugge, 1980). Several kinds of health problems are managed by self- or home-treatment, non-prescription drug use, lay consultation, consultation with alternative practitioners, or no treatment at all (Mechanic, 1962; Verbrugge and Ascione,

1987; Tonai et al. 1989).

A health diary is useful for obtaining reports of morbidity (illness and injury), and health actions and is superior to other methodology (Roghamann and Haggerty, 1972; Verbrugge, 1980; Norman et al. 1982). The health diary provides not only high-quality, accurate, information on common health problems and health actions better than the more widely used retrospective health interviews, but also provides insight into the social aspects of a person's day-to-day health condition, health service use, medical purchase and payment, all of which is important for a holistic evaluation of health (Alpert et al. 1967; Freer, 1980a,b; Verbrugge, 1980; Verbrugge and Balaban, 1989). The health diary provides information on dimensions of illness that could not be assessed by other measures, e.g. chronically ill experience, mothers' perception of their children's illness and coping, the health consequences of air pollution, the level of gastrointestinal illness, and psychiatric illness as well (Norman et al. 1982; Murray, 1985; Cunningham-Burley and Irvine, 1987; Kamat and Doshi, 1987; Verbrugge and Balaban, 1989; Payment et al. 1991; Baert et al. 1992). Furthermore, the health diary method was shown to be suitable not only for studying western communities but also rural Japanese communities (Tonai et al. 1989).

In Thailand, there have been few previous studies using the health diary as a research tool for measurement of illness and health care of the farmers in the northeast (Preedasawasdi et al. 1987; Suphanchaimat et al. 1988; Osaka and Nanakorn, 1995). The present study aimed at exploring patterns of health actions

and illness behaviors among villagers living in rural areas of the northeast of Thailand.

Subjects and Methods

Population study and research design using the health diary as a data collection tool has been described elsewhere (Osaka and Nanakorn, 1995). In brief, 402 households which had at least one child of age under 7 years were selected from all households situated in 12 villages, Khon Kaen province, northeast Thailand. These 12 villages, which are representative of rural areas in the northeast, were selected by means of a multi-stage sampling technique from 4 sub-districts in 2 districts labeled as 'A' and 'B' in Khon Kaen province. Three hundred forty-five of the 402 households (85.8%, 1690 members) completed health diaries. This number of households represented 22.2% of the total households in these 12 villages.

Subjects were housewives from the selected households, aged 15-49 years. They were asked to participate in this study because they had a keener interest in the survey (Freer, 1980a; Verbrugge, 1989). An initial demonstration of health diary recording was performed by the investigators. Then for four weeks during the period 1-30 November 1992, the respondents kept a daily health record in which they answered the open-end questions on all symptoms, injuries, and health actions of each household member. The second visit to all respondents was performed one week after, to minimize possible errors in recording and to ensure uniform understanding of

the methods. Symptom of illness was explained as the subjectively perceived illness by the respondents as 'a disturbance in body process or an experience that has become problematic for the individual' (Freund and McGuire, 1991) and disease diagnosed by medical or health professionals were included as well. Health action refers to potential responses to illness, such as do nothing about the symptom (decide to wait and see), self-medication (purchase drug by themselves with or without lay consultant), visiting health center¹, visiting community hospital or regional hospital or private clinic outside villages and visiting traditional or herbal healers. These types of actions were conceptualized as a form of illness behavior by Dean (1986).

Results

The details of types of illness episodes occurring among the population studied have been described elsewhere (Osaka and Nanakorn, 1995). Briefly, 34.8% of 345 households had at least one episode of a member being ill, which amounts to 333 episodes involving 299 ill persons. The most common illnesses reported by the respondents were common cold, fever, and abdominal pain which occurred in 78, 59 and 47 episodes, respectively,

followed by headache and cough. In the age group 0-1 and 2-5 years old, the common cold was most prevalent followed by fever. In the school children (6-15 years old) group fever and common cold were equally frequent.

Illness behavior

The health diaries revealed a broad range of responses to specific health problems. Table 1 classifies illness behavior reported in the diaries into four categories: 1) wait and see (decide to take no action); 2) self-medication (non-prescription drug use, either alone or in conjunction with lay consultation); 3) professional consultation (health services utilization, either government or private professional, at the village, district or provincial level); 4) traditional or herbal

TABLE 1.
*Percentage of illness behavior during
one month*

Illness behavior	number	percent
Wait and see	27	9.0
Self-medication	112	37.5
Professional consultation:-	134	44.8
local health center (in village)	58	19.4
community hospital (in district)	34	11.4
private clinic (in district)	34	11.4
regional hospital (in province)	8	2.6
Traditional/herbal healer (in village)	26	8.7
Total	299	100.0

¹ Health center is the peripheral unit for health care delivery in the rural areas which is available to the public in nearly all sub-districts. Each health center is normally staffed by an auxiliary midwife and a junior sanitation or technical nurse. They are responsible for major preventive and promotive health services such as prenatal care, delivery and postnatal care, child immunization and nutrition, family planning and water supply and sanitation. Health centers also provide limited treatment of emergencies or minor illnesses and refer patients to the community hospital in the district (Ministry of Public Health, 1991).

Fig. 1. Illness behavior by ill-symptoms.

healer consultation. Self-medication was the most frequently practiced of illness behaviors (37.5% of ill persons) followed by professional consultation at local health center (19.4%); community hospital situated in the district (11.4%); private clinic in the district (11.4%); and decide to wait and see (9.0%).

Illness behavior by ill-symptoms

A comprehensive picture of illness behavior by ill-symptoms was obtained through the one-month health diary. The data were classified into 4 types:

1. minor illness: most of the villagers who perceived illnesses as a mild ill-symptom (for example; common cold, cough, food-indigestion, chicken pox fever) had taken action as purchasing drugs after one day of wait and see, while only few of them utilized the local health center or community hospital.

2. severe and acute symptoms: high fever occurring in children was perceived as acute and severe ill-symptoms which caused the villagers to look for urgent treatment. Professional consultation at private clinic in the district was believed to provide the best treatment. The symptoms obtained from this study

were dengue fever (diagnosed by health professional), low abdominal pain and blood shot red eyes.

3. chronic ill-symptoms: diabetes mellitus was prevalent and perceived as a chronic disease for which they decided to receive treatment from health professional at district level for diagnosis and prescribed drug purchasing. Then, local health center was utilized for injection. In a case of chronic abdominal pain a 30 year-old male utilized the community hospital 10 times, then changed to a traditional healer using herb for 20 days.

4. accident: both accident at work and motorcycle accident were prevalent in those villages for 9 cases (2.7% of total episodes), local health center utilization was used after failure of self-medication.

Types of drugs used in self-medication

Analgesics were the most frequently used medication, for relief of headache, fever, common cold, and abdominal pain. Interestingly, a cocktail drug called 'Ya-chud', made of vitamin c, paracetamol, tetracyclin hydrochloride and chlorpheniramine maleate, was also frequently used by adults for relief of back or of leg pain, apart from "Daga", a well-known brand-name analgesic as well.

The use of traditional herbal drugs in tablet form was also common for relief of fever among children. Concerning the source where the villagers purchased drugs, there were private drug stores or local drug sellers which mostly were the groceries in the villages. Drug stores in the district area were the place where most of the non-prescription drugs were sold.

Discussion

The most frequent health action of the villagers surveyed in this study was self-medication (37.5% of ill persons). This finding is consistent with the finding of a survey by the Ministry of Public Health (1979) which revealed that 44.2% of the surveyed households purchased drugs by themselves for their ailments and with the finding of a high rate of self-medication (68.3-86.3%) among the northeast villagers (Grand et al. 1993). The possible reasons for self-medication are perception of an ailment as minor, easy accessibility of the drugs, for example the drug being sold near by their house, and their own previous experience or the experience of a lay consultant among their neighbors.

There is of course more than one step in the health actions of the villagers, such as wait and see as the first step, then self-medication, followed by local health service utilization after self-medication had failed and then by community hospital utilization for actual diagnosis and by local health center utilization for obtaining drugs. The reasons for the latter action was the limitation of laboratory investigation for actual diagnosis of diabetes mellitus and follow-up treatment at local health center. Interestingly, villagers with similar illnesses took different actions, for example some decided to wait and see, while others decided to consult health professional or to perform self-medication.

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