# CHAPTER I

## INTRODUCTION

### History of Physical Therapy in Thailand.

Physical therapy or Physiotherapy is defined in the Act of Health Practice Controlling 1936 (Sathien Vichairak, and Suebvong Vichairak, 1988) as;

> "A practice of ameliorating patient in order to cure,prevent, correct, and restore functional deterioration or physical or mental disability by physical therapy procedure such as manipulation,traction, massage, exercise on some part or whole body of patient who need that treatment procedure, with scientific basis; or operation of physical therapeutic instrument or equipment which Minister promulgate as physical therapy instrument"

Physical therapy services involve many kinds of patient such as orthopaedics, surgery (general surgery, thoracic surgery, neurosurgery, etc.), medicine (chest, neurology, etc.), pediatrics, obstetrics, and gynecology, intensive care unit, etc.

Physical therapy is misconceived of as only a rehabilitative service by administrators in Ministry of Public Health (Kong Suwannaratana, 1984; Uthai Sudsuk et al., 1987). Futher evidence for this is physical therapy services in all government hospitals are under the Department of Physical Medicine and Rehabilitation (Viyada Saksri, 1987b).

Not every patient is need of physical therapy service will be taken care of by health personnel team with a good understanding of the concepts of physical medicine and rehabilitation (Penpimol Thammarakkit, 1985). Physical therapy itself covers all roles in health care: preventive and promotive, curative, and rehabilitative (Penpimol thammarakkit, 1987; Uthai Sudsuk et al., 1987; Pannee Fuangfung, 1987; Prayod Boonsinsuk, 1987). It was estimated that physical therapist perform service almost always in the role of curative (about 95%), only 5% as rehabilitative role (Prayod Boonsinsuk, 1987).

Physical therapy service in Thailand originated in 1949 at Siriraj Hospital by Dr. Fuang Satsa-nguan, who was the "Father of Orthopaedics" in Thailand. The need to establish physical therapy was to provide for the need of injured people during World War II, together with the development of orthopaedic surgery. Because there was no training course or school at that time, the service was run by doctors and nurses who received training abroad (Nathee Rakpolamuang, 1984).

The work of the Siriraj unit boomed as a consequence of the poliomyelitis epidemic in Thailand in 1957. It was supported with equipment and facilities from The Aid for Disabled People Foundation under the Patronage of the King's Mother (Somsiri Tabsang, 1984).

After that, physical therapy was increasingly important as a specialized service and was disseminated to many governmental hospital, such as Lerdsin Hospital (1962), Rajavithee etc. under the Ministry of Public Health (Kong Suwannaratana, 1984).

**History of School of Physical Therapy in Thailand.**

In 1965, the first school of physical therapy was established under the Department of Orthopaedics and Physiotherapy, Faculty of Medicine at Siriraj Hospital, Mahidol University, by Dr. Fuang Satsa-nguan with collaboration of World Confederation for Physical Therapy (WCPT) and World Health Organization (WHO) (Karnda Jaipakdee, 1984). This school produced physical therapist who received Bachelor degree of Science in Physical Therapy (BSc. Physical Therapy) with 4 years of study. The school has supplied personnel for both governmental and private hospital since 1968 (Kong Suwannaratana, 1984).

The school first enrolled as average of 20 students per year. After that the number was increased at the rate of 5 students per year, and by 1981 the total enrollment was 40.

In 1982, the school made a contract with Ministry of Public Health for a "Programme of Physical Therapist in Rural Area". It accepted 10 students per

year from city outside Bangkok Metropolitan area, beside the normal track of entrance examination. From then the total enrollment was 50 (40 from entrance examination, 10 from the program) (Karnda Jaipakdee, 1984).

Because of the aid from WCPT in establishment of the school, the curriculum resembled the European style. The curriculum was improved a little bit by increasing or decreasing the subjects. In academic year of 1987, the educational system was changed completely to a credit system (Mahidol University, Faculty of Medicine at Siriraj Hospital, Department of Orthopaedics and Physiotherapy, School of Physiotherapy, 1987).

The second school of physical therapy, was authorized as a Department of Physical Therapy under Faculty of Associated Medical Sciences, Khon Kaen University. It supplied physical therapy professionals for the northeastern part of Thailand. The department enrolled the first batch in 1983. The number of enrollment is constant at 20 per year. The curriculum was implemented 7 years ago and not prominently changed.

The third school, Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiangmai University, in northern part of Thailand, enrolled the first batch in 1984. The number of enrollment was 10 in the first year and increased to 30

until now. The curriculum was also not prominently changed (Viyada Saksri, 1987b).

In 1987, Rangsit College, a private institute, opened a fourth school, provided 4 years baccalaureate programme in physical therapy. One of the aims of the school is to relieve the graduate production load of the government (Rangsit college, 1989). It has enrolled 50 students every year since 1987.

Although there are 4 schools of physical therapy profession, the manpower situation is still poor. A survey in 1987 showed that from the total physical therapist pool of 487, 32% (157) are lost. The maximum loss was due to (45.2%) transfering to other jobs. 7% drained to work as physical therapist in other countries, Although it is estimated that emigration has increased markedly. Of the remaining 340, 269 worked in governmental setting, and 71 in private setting. 59.1% (195) worked in Bangkok Metropolitan area. The provincial regions, which are occupied by 80% of the population, have only 40.9% (135) of the physical therapists. In 1987, there were 25 provincial hospitals still without a physical therapist. Compared with other health personnel, the ratio of physical therapist to population was very low at 1:30,769 in Bangkok Metropolitan, and 1:407,407 in other provinces (Viyada Saksri, 1987b).

Since the beginning of a physical therapy profession curriculum 25 years ago, the growth of educational development has been at an undesirable rate. The evidenc shows that there has been only one research study of the curriculum (Sutassanee Wiwatanapatapee, 1984), aimed at improving the Mahidol University curriculum (Mahidol University, Faculty of Medicine at Siriraj Hospital, Department of Orthopaedics and Physiotherapy, School of Physiotherapy, 1987), and one seminar related to physical therapy education (Chiangmai University, Faculty of Associated Medical Science, 1985).

Importances of Problems.

Physical therapy education is a professional education supplying the well prepared practitioners for a designated role in the health care field. Changing health care needs, and technological innovation call for continuous growth of the professionalization of physical therapy. To reflect changing health care needs, the physical therapy curriculum must be developed continuously to provide an adequate number of qualified graduates as roles change.

Curriculum evaluation is a necessary continuous process for curriculum revision or remodelling. There are many concepts and methods for evaluation of curriculum. Assessing the product is one well known method in curriculum evaluation. The products may mean

the qualification or quantification of the students who complete the programme and their achievement in working. In evaluation of the quality of a product, follow-up study or survey of graduates provides a valuable source of information (Nelson, 1971).

Best (1981) concluded about the follow-up study that;

> "The follow-up study investigates individuals who have left an institution after having completed a program,a treatment, or a course of study. The study is concerned with what has happened to them,and what has been the impact upon them of the institution and its program.By examining their status or seeking their opinions,one may get some idea of the adequacy or inadequacy of the institution's program. Which courses, experiences, or treatment proved to be of value ?.Which proved to be ineffective or of limited value ?. Studies of this type enable an institution to evaluate various aspects of its program in light of actual results.

Vichitr Srisa-an (1980) stated about the method and characteristics of follow-up studies that;

> "Follow-up studies of graduates can be classified into 2 categories; a) quantitative analysis is the survey about how adequacy of supplying number of graduates from various programme provided for the society needs, and graduates'career profile. b) qualitative analysis is the study about how satisfactory of graduates' quality in job performance for attaining the programme objectives. In this study the data are collected by;
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> 1) asking the graduates about how consistency of the job with the knowledge acquired, how applicable of that knowledge.
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> 2) asking with the graduates' user (supervisors) is the useful feedback because the supervisors are representative of the employer.
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> 3) asking with graduates' peer and the consumer; can be done when there are lived peer and consumer."

Since the first Thai physical therapy graduates entered into the profession, their performance was not evaluated systematically in order to improve the quality of the next generation. Until 1984, Sutassanee Wiwatanapataphee evaluated the Mahidol physical therapy curriculum by Context Input Process Product model (CIPP model). She found that graduates' performance achieved the curricular objectives (judged by employer's opinion). However the employer wanted the graduates to be more competent.

The above evaluation was made on their own curricular objectives, not on a common standard of physical therapy. The evaluation of quality of graduates by a common standard is necessary for improving the curriculum in the same direction which will improve the quality of graduates and fulfill the health needs of the society (Arunee Vachiraporntip, Ukrit Plengvanich, and Channivat Kasemsant, 1979). Physical therapy is a profession which has specialized knowledge and skills that allows it to provide specific services in an exclusive manner to a public that accepts this exclusiveness. So a common standard should be based upon quality of care (American Physical Therapy Association, quoted in MacKinnon, 1984).

So it is necessary to evaluate the graduates' quality on the standard of basic physical therapy. A

problem is that since establishment of Physical Therapy Association of Thailand (PTAT) no standards have been set. There are no standard competences or required competences formally written for use in any government health setting. However the Division of Provincial Hospital under Ministry of Public Health is in the time of setting up standard job description which can be used for the Physical Medicine and Rehabilitation Department in "central" and "general" type of hospital which under the Division of Provincial Hospital.

The standard job description classified the functions of the Physical Therapy Unit into 3 categories (Thongpoon Vijarnrattakan, personal communication, Feb. 13, 1990) as; a) administration, b) health care services which include promotion, prevention, curative, and rehabilitation, and c) academic services (such as; teaching health personnel, research etc.). The main functions of physical therapist in any position is health care services especially curative and rehabilitation. This is common either in government general hospital or private general hospital. So it is assumed that the standard job description of health care service part, can be used for quality assurance of both government and private setting which have the same size and service.

By the survey of the graduates and their supervisors for judging on curriculum modification,

Larson and Davis (1975) studied the gap or discrepancies between competence learned in the programme and competence required for the job.

In order to find out these discrepancies, the on-the-job required competence should be extracted from the standard job description of the health care service part first. In this study, the relevant competences are selected with the following rationale.

1. Relevant competences.

The Standard job description is classified into 3 functions as described above. The relevant competences to be studied cover only those required for the health care services function because that is the main function of a physical therapist.

In the health care function, Physical therapists have a main role in curative and rehabilitation. Although promotion and prevention are important roles which support the primary health care as recommended (Fulop, 1983; Thai Government, Ministry of Public Health, 1988), physical therapists in Thailand still are unfamiliar and don't understand these roles well. Promotive and preventive work is performed as a special project by a few hospital and seldom continuously operated. However, the attitude and the knowledge about the primary health care will be measured.

Categorization of clinical competence proposed by the National Board of Medical Examiners (NBME) is an example of a simple approach. The abilities required in encounters between a physician and individual patients are, a) clinical skills b) knowledge and understanding, c) interpersonal attributes, d) problem solving and clinical judgement, e) technical skill. These categorizations are limited only to the individual physician-patient encounter. Futher desirable abilities other than these were categorized as the physician's responsibilities to a) patients, b) self, c) immediate colleagues, d) the profession, e) the community and society (Neufeld, 1985).

Compared with the relevant competences of physical therapist, they are almost the same. Aston-McCrimmon (1986) listed 236 competences encompassing the knowledge, capabilities, skill, judgement, attitude, performance, and values necessary for the practice of physical therapy which were compiled from many sources. The competence were grouped into 11 categories : professional ethics and attitudes, interpersonal relations and communication skills, personal qualities, evaluation, planning of treatment services, treatment skills and implementation of client-care services, research skills and creative thinking, professional growth, societal awareness, administrative skills, theoretical knowledge. From the above wide scope of

competence categories, the areas of relevant competences for evaluation of graduates abilities in curative and rehabilitative functions are grouped as follow:

1) Interpersonal relations and communication skills.
2) Professional ethics and attitude.
3) Continued education behaviors.
4) Personal qualities.
5) Evaluative skills.
6) Treatment skills.
7) Planning and treatment of common diseases.
8) Clinical problem solving skill.
9) Quality supporting to primary health care.

For definitions of each areas see the Operational Definitions.

2. Rationale for selection.

The evaluation, treatment skills are the technical skills necessary in data collection and treatment performance. But physical therapy is not only the technician as apply treatment on the patient upon empiricism (I do it because it works) (Wolf, 1985). Physical therapists are problem solvers. They use problem solving skill to apply in any of their health care roles (Barr, 1977; Watts,1966). The clinical decision making or clinical problem solving which is based on concrete data acquisition and rationale approach in planning

treatment is needed for physical therapist to select the most valid and efficient treatment for their patients (Viyada Saksri, 1987a; Chitr Sitthi-Amorn, 1989; Prathomratana Saksri et al., 1987). And so it promotes professional growth (Johnson, 1985).

Viyada Saksri (1987a) mentioned that a good physical therapist profession requireds not only hand and head, but also the heart was an important component for providing health care. Holistic care is concerned not only with the technical component of care, but also with psychosocial, familial and economic elements of the patients.

Concern about doctor-patient relationship problems emerged after an overemphasis on technology, leading to better informed consumer felling unsatisfied with professional quality and also an increasing trend of self-care behavior. Evidence shows that the quality of doctor-patient relationships relates to patient satisfaction, compliance with medical regimens, and also health care outcomes (Woodward, and Gerard, 1985). Hess (1969) developed a working definition of skill in relating to patients and classified this into 2 categories; (1) interpersonal skills (behaviors particularly important to patient acceptance of the doctor); and (2) communication skill (behaviors particularly important to information flow).

Other important competences for holistic care which interested are professional ethics and personal qualities. Physical therapists must perform their work according to the law as proposed in Health Practice Act. Furthermore emphasis should be based on other personal qualities, such as moral, socially commendable characteristics, etc. These are described in the next chapters.

When the graduates enter into their profession, they should not get struck on the routine and out of date practice received from their school. To maintain and update their competence, the continued education programme should be adequately provided for physical therapist. However maintenance and improvement of standards of the physical therapy service are dependent largely on individual physical therapist's commitment to lifelong learning or to taking responsibility for their own continuing education (Chartered Society of Physiotherapy, 1983; World Health Organization, Regional Office for Europe, 1977). As the change in the technology, environment, life style, disease pattern, political issues, they should have a continuous learning behavior to cope with these (Chitr Sitthi-Amorn, 1989; Fulop, 1983; Thai Government, Ministry of Public Health, 1988; Johnson, 1974). The ongoing acquisition of knowledge is also one principle for effective clinical decision making (Wolf, 1985).