ATTITUDES OF PHYSICAL THERAPISTS TOWARD PERSONS WITH PHYSICAL DISABILITIES

SURACHADE LEELAKAJOHNKIT

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Thesis
Entitled

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For the degree of Master of Arts (rehabilitation service for persons with disabilities)
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ATTITUDES OF PHYSICAL THERAPISTS TOWARD PERSONS WITH PHYSICAL DISABILITIES

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ABSTRACT

The attitudes of medical personnel toward disabled persons are a factor that affects the success of rehabilitation. Thus, this study emphasises an examination of the attitudes of physical therapists toward persons with physical disabilities as well as a comparative study of gender, type of workplace, and level of contact with disabled persons. The population was 255 physical therapists working in Bangkok and its suburbs from October to November 2004. A demographic data questionnaire, a Contact with Disabled Persons Scale, Thai version, and an Attitude Toward Disabled Persons Scale-form A, Thai version, were used to record these attitudes and results were analyzed statistically in terms of mean, standard deviation, and percentage. In additional the Mann-Whitney U test and Kuskal-Wallis H test were used to measure the differences in attitudes.

The findings indicated that the physical therapists had positive attitudes toward persons with physical disabilities. There was no statistically significant difference in attitudes of physical therapists, classified by gender and level of contact with disabled persons, toward persons with physical disabilities. However, differences were found in those working at different workplaces. Different characteristics of work may lead to different working experiences with disabled persons as a professional worker. It can be concluded that different attitudes of the physical therapists toward persons with physical disabilities are caused by working experiences in each type of workplace. This may be due to academic factor. Teaching and academic training may improve their attitudes, which in turn will be very useful for the rehabilitation of disabled persons.

KEY WORDS: ATTITUDES / PHYSICAL THERAPISTS / PERSONS WITH PHYSICAL DISABILITIES

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เจตคติของนักกายภาพบำบัดที่มีต่อคนพิการทางกายและการเคลื่อนไหว (ATTITUDES OF PHYSICAL THERAPISTS TOWARD PERSONS WITH PHYSICAL DISABILITIES)

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บทคัดย่อ

เจตคติของบุคลากรทางการแพทย์ที่มีต่อคนพิการเป็นปัจจัยหนึ่งที่มีผลกระทบต่อความสำเร็จในกระบวนการฟื้นฟูสมรรถภาพคนพิการ ด้วยเหตุนี้ การศึกษาในครั้งนี้จึงให้ความสำคัญต่อการศึกษาเจตคติของนักกายภาพบำบัดที่มีต่อคนพิการทางกายและการเคลื่อนไหว รวมไปถึงการศึกษาเปรียบเทียบปัจจัยเรื่องเพศ สถานที่ทำงาน และระดับการติดต่อสัมพันธ์กับคนพิการ นักกายภาพบำบัดที่ศึกษานี้เป็นนักกายภาพบำบัดที่ปฏิบัติงานในเขตกรุงเทพมหานครและปริมณฑล จำนวน 255 คนระหว่างเดือนตุลาคม-พฤศจิกายน 2547โดยใช้แบบสอบถามข้อมูลทั่วไป แบบวัดการติดต่อสัมพันธ์กับคนพิการ (CDP scale) ภาคภาษาไทย และแบบวัดเจตคติที่มีต่อคนพิการ (ATDP scale form A) ภาคภาษาไทย ทำการคำนวณหาค่ากลางของข้อมูล ส่วนเบี่ยงเบนมาตรฐาน และค่าร้อยละ นอกจากนี้ได้เปรียบเทียบความแตกต่างของเจตคติโดย Mann-Whitney U test และ Kuskal-Wallis H test

ผลการศึกษา พบว่า นักกายภาพบำบัดมีเจตคติที่ดีต่อคนพิการทางกายและการเคลื่อนไหว และไม่พบความแตกต่างของเจตคติระหว่างนักกายภาพบำบัดที่มีเพศ และระดับคะแนนการติดต่อสัมพันธ์กับคนพิการที่แตกต่างกัน แต่พบว่านักกายภาพบำบัดที่มีสถานที่ทำงานต่างประเภทกันมีความแตกต่างกัน ซึ่งมีรูปแบบการปฏิบัติงานที่ต่างกันอันก่อให้เกิดความแตกต่างในประสบการณ์การทำงานกับคนพิการในฐานะนักวิชาชีพ สรุปได้ว่า เจตคติที่มีต่อคนพิการทางกายและการเคลื่อนไหวของนักกายภาพบำบัดที่แตกต่างกันเนื่องจากประสบการณ์ในการทำงานกับคนพิการในแต่ละประเภทสถานที่ทำงาน การส่งเสริมการมีรูปแบบการปฏิบัติด้านวิชาการ เช่น การสอน การอบรมวิชาการอาจช่วยพัฒนาเจตคติของนักกายภาพบำบัดที่มีต่อคนพิการให้ดียิ่งขึ้น ซึ่งจะเป็นประโยชน์ต่อการฟื้นฟูสมรรถภาพคนพิการ

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CHAPTER I
INTRODUCTION

Background and Significance

Help for disabled persons in Thailand started during the reign of His Majesty King Chulalongkorn who graciously built Somdej Chaopraya Hospital to treat people with neurological disease. Services provided, other than mental treatment, were vocational rehabilitation developments, but there is no proof of this. In 1949-1952, King Rama IX graciously established Rajprachasai Foundation to treat people suffering from leprosy. Later, Khun Prathumrokpraharn initiated the physical therapy work inside Pramongkutklao Hospital to help the veterans (Punpit Ammarttayakul, 2001: 8). Educational rehabilitation in Thailand was also focused on when it was introduced among persons with visual impairment in 1939. Until 1991, the first Rehabilitation of Disabled Persons Act was enacted followed by several ministerial regulations. In 2001, the Frankin Delano Roosevelt International Disability Award was presented to His Majesty King Bhumiphol Adulyadej by the United Nations. The award is given to any country with outstanding disabled work in the area of law, education, employment, public service provision, opportunity and participation in social activities of the disabled (Chusak Jantayanont, 2001: 29). Based on the above, Thailand highly realizes the need for quality development of disabled persons.

The 2001 survey on Thai disabled populations showed that 1.1 million people (1.8% of the total population), out of 62.9 million, were disabled whereas persons with physical disabilities, based on the Rehabilitation of Disabled Persons Act B.E. 2534 classification, occupied the highest number accounting to 46.6% of the total disabled population. It was also found that 94.1% of disabled persons were in need of public service or assistance while 40.7% required treatment, operation, physical therapy services or assistances (National Statistic Office, 2002: 9,12, 32).

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According to the preliminary survey on disabled persons, medical rehabilitation is vital. Disability, either congenital or acquired, must be examined, diagnosed, treated, and medically restored by medical personnel such as orthopedist, nurse, physical therapist, speech therapist, etc. For this reason, medical rehabilitation is crucial for physical, psychological and social quality development of disabled persons to enable them to a happy and pleasant life in the society and in successful vocational training (Jittra Sirisomboonlarb, 1994).

Pertaining to the Third Ministerial Regulation, 1994, enacted to accompany the Rehabilitation of Disabled Persons Act B.E. 2534, physical therapy is one of the medical rehabilitation necessary for disabled persons. The Practice of The Art of Healing Act B.E. 2542 defines "Physical therapy" and its role as a therapy designed to relieve physical impairment caused by illnesses or irregular locomotion and health promotion, prevention, correction, and restoration of physical and psychological dysfunction and disability for a better quality of life (Vijit Thauenchuen, 1998; Physiotherapy Association of British Columbia., 2003). Therefore, physical therapy is crucial and necessary for development of patients and disabled persons' quality of life.

However, positive and negative attitudes towards disabled persons affect their rehabilitation process (Benham, 1988: abstract; Tervo, et al., 2002: 1537-1542). Sympathy and understanding is described as a positive attitude while aversion, hatred, scorn, neglect, separation is a negative attitude resulting in withdrawal, dependency, and demand of disabled persons (Kittiya Rattanakorn, 1988: 39-45). These displease of their quality of life. Therefore, based upon their physical therapy involvement with disabled persons, the attitudes of physical therapists are very important for them and for their rehabilitation process.

Gender is a natural factor existing from birth to differentiate male from female, and thinking, emotion, behavior, and relationship with other people (Chaiwat Panjapong, 1981: 5). Gender also influences attitudes towards disabled persons. Some findings said that woman have a better attitude than men whereas some say the opposite. There are, however, some research works that do not find any difference

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between attitudes towards disabled persons of men and women (Yuker & Bock, 1986: 9). In any case, further studies about effects of gender on attitudes towards disabled persons are to be conducted as their results vary. In addition to gender, different experiences result in different attitudes (Dougflass & Pratkanis, 1994: 272-273). A workplace or an institute can be a source of experiences which vary according to objectives and work pattern of that place and it affects the attitudes towards disabled persons (Savana Pobsuk, 1993). Apart from work experiences, contact with disabled persons also relates to people's attitudes towards them (Yuker & Hurley, 1987: 145-157). It was also found that different contact with disabled persons brings about different attitudes (Gething, 1993). Gender, workplace, and level of contact with disabled person are, therefore, crucial factors for different attitudes towards disabled persons.

Despite the fact that there are many studies conducted on attitudes towards disabled persons, based on the literature reviews, there is none that talks about attitudes of a physical therapist on persons with physical disabilities in Thailand. Therefore, a study of attitudes of physical therapists toward persons with physical disabilities and its related factors mentioned above is necessary for the rehabilitation process of people with different types of disabilities. The benefits derived from this study should be implemented to improve attitudes of physical therapy personnel in order to enhance the rehabilitation process, which will be useful for the quality of life of disabled persons.

Objectives

1. To examine the attitude of physical therapist towards persons with physical disabilities.
2. To compare the attitudes of the physical therapists toward persons with physical disabilities in terms of gender, type of workplace, and level of contact with disabled persons.

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Hypothesis

1. A physical therapist has a positive attitude towards persons with physical and mobility disabilities.
2. Male and female physical therapists have different attitudes toward persons with physical disabilities.
3. A physical therapist who works at different places has a different attitude towards persons with physical disabilities.
4. A physical therapist with a different level of contact with disabled persons has a different attitude towards persons with physical disabilities.

Research Variables

Independent Variables

Gender
- Male
- Female

Types of workplaces
- Public hospital or health center
- Private hospital or health center
- Rehabilitation center or institution for disabled person
- Others e.g. special education school and / or university

Level of Contact with Disabled Persons
- High (74-100 scores)
- Medium (47-73 scores)
- Low (20-46 scores)

Dependent Variable

Attitude towards persons with physical disabilities

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Scope of Research

This research aims at studying the attitudes towards persons with physical disabilities of the physical therapists who are a member of the Physical Therapy Association of Thailand and are working in the public hospital or health center, private hospital or health center, rehabilitation center or institution for disabled persons, and others (e.g. special education school and / or university) in Bangkok and its suburbs including Nonthaburi, Pathumthani, Samutprakarn, Nakornpathom, and Samutsakorn. They must obtain a physical therapy license and must be working in the area of physical therapy from October to November, 2004

Expected Benefits

1. Providing guidelines for development of the attitudes of physical therapists toward persons with physical disabilities.
2. Providing source of knowledge in developing the work of physical therapists, psychologist, and rehabilitation professionals.
3. Providing guidelines for development of educational curriculum, especially in rehabilitation service and physical therapy.
4. Providing guidelines for the further studies on attitude, physical therapy, and rehabilitation.

Definitions

Attitude is defined as thought, feeling, and behavioral patterns towards something as well as reaction caused by learning, experience towards a certain stimuli such as like-dislike, agree-disagree, pleased-displeased, etc. This research “Attitudes Toward Persons with Physical Disability” is assessed by the Attitudes Toward Disabled Persons Scale (ATDP)-form A – Thai version (Duangdauen Panthumanavin, 1971 cited in Vairat Jiambanjong, 1981: 44; Allport cited in Sathit Niyomyat, 1981: 55; Yothin Sansanayuth and Jumphol Pulpattarachivin, 1981: 43; Theeravut Aekakul, 1999: 3; Mead, 1934: 5 cited in Handel, Warren & Lauer, 1983; Myers, 1996: 125).

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Person with physical disability is defined as one whose physical disorder and impairment are clearly visible and/or one who has lost his mobility ability preventing him from performing his daily activities or leading a life as a normal person.

Physical therapist is defined as one whose main career is physical therapy and must hold a minimum of bachelor degree in physical therapy and acquire a physical therapy license from the Profession Board.

Types of workplace of physical therapist - in this research they are divided into:

1. Public hospital or health center refers to a hospital or health center operated by the state or the state enterprise.
2. Private hospital or health center refers to a hospital or health center operated by an individual.
3. Rehabilitation center or institution for disabled person refers to a place to provide rehabilitation service or assistance to disabled persons to enable them to live or live independently.
4. Others such as special education school and / or university refer to an agency or educational institute focusing on providing education to students.

Contact with disabled persons is defined as an involvement, tie, and visit made to disabled persons assessed by the Contact with Disabled Persons Scale (CDP)-Thai version.

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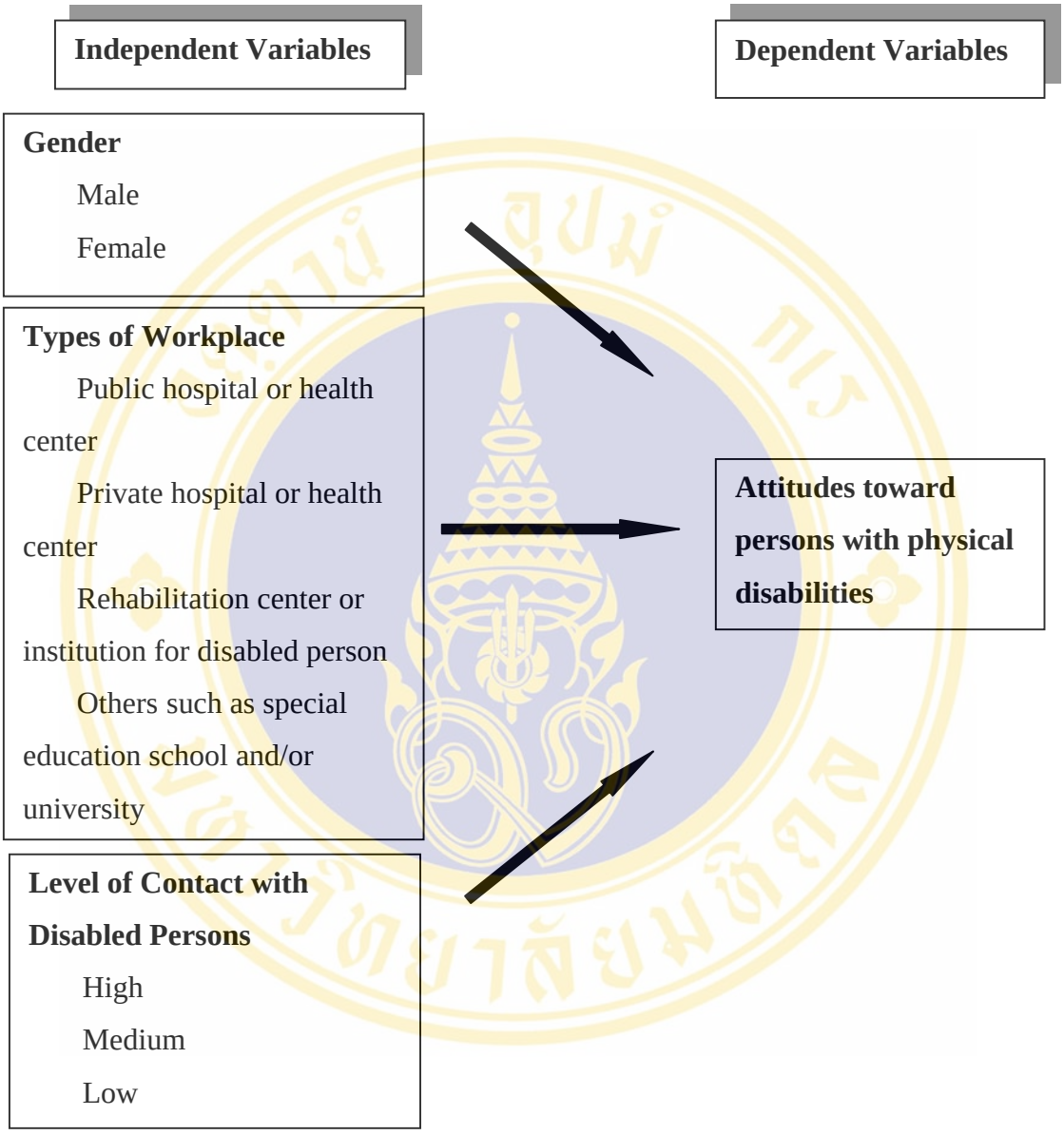
Conceptual Framework



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CHAPTER II
LITERATURE REVIEW

The research on “Attitudes of physical therapists toward persons with physical disabilities” was compiled from the study of related literatures and it can be classified into the followings.

Part 1: Literatures related to disabled persons

Part 2: Literatures related to attitudes

Part 3: Literatures related to physical therapists

Part 4: Related literatures

Part 1: Literatures related to disabled persons

Definition of disabled person

As described in the Rehabilitation of Disabled Persons Act by Office of the Committee on Rehabilitation for Disabled Persons (1991: 1), disabled person is a person with physical, intellectual or psychological abnormality or impairment as categorized and prescribed in the Ministerial Regulations.

According to the 1994 Ministerial Regulation, 2nd edition, issued in accordance with the 1991 Rehabilitation of Disabled Persons Act, there are 5 categories of disabilities.

1. Visual Impairment
2. Hearing or communication disability
3. Physical functioning or locomotion disability
4. Mental or behavioral disability
5. Intellectual or learning disability

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Person with physical disability refers to:

1. A person with obvious abnormality or malfunctioning of the physical condition which makes her/him unable to perform daily routine activities or

2. A person who has lost his/her ability to move hands, arms, legs, or body as a result of amputation, paralysis or weakness, rheumatic disease, arthritis or chronic pain including other chronic illness caused by body system dysfunction inhibiting him/her to perform daily routine activities or maintain a living of an ordinary person.

As a summary, a person with physical disability is a one whose physical disorder or disability is visible and/or one who has lost his ability to move and it prevents him from performing his daily activities or living a life as a normal person.

Effect of disability

Kittiya Rattanakorn (1988: 39-45) "Disability, regardless of its form (congenital, acquired, mild, severe, etc.) affects not only the person who has it, but also his family, society, and country. Effects of disability are:

Physical effect

Disability is visible, especially physical disability such as cleft mouth which can be seen from outside. It affects personality and creates physical restrictions for a person to perform his activities. This leads to work disadvantages and prevents a person from social participation.

Mental effect

There are various mental effects due to disabilities or social attitudes towards them. Related physical effects, for example, are despair, hopelessness, stress, shame, lack of self-confidence, etc. Consequently, disabled persons develop withdrawal, aggressive, stubborn, etc., behaviors. Physical effects due to stress include loss of appetite and colitis. Social attitudes affect the disabled person adjustment. There are

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two types of social attitudes: positive attitudes e.g. compassion, sympathy, understanding, and negative attitudes e.g. aversion, hatred, contempt, and favoritism. These are the reason why disabled persons feel demanding, dependent, inferior, and secluded.

Social and national effects

Once a person becomes disabled, he must adjust himself to the social environment. But with his physical restrictions, self-perceptions, and social attitudes toward disabled persons, he tends to withdraw himself from the society to live a different life and hold a different social status.

Social and national effects of disability are responsible for different types of social problems. Negative attitudes towards disabled persons result in abandonment. Disabled children are an embarrassment to their parents and are deserted; while disabled adults are not able to make a living and are a burden to their family who has to support them and pay for their medical expenses resulting in them being left to become a beggar.

The government is lack of manpower intelligence, thinking, and ability or even the labor force to develop the country. It is the country responsibility to provide people with education, healthcare, housing, welfares, benefits, and rehabilitation services.

Economic effects

Economic changes often take place once disability occurs. Examples are increasing medical costs before and after disability become visible until the treatment ends and decreasing income due to unemployment caused by lack of ability to fully perform one’s duty.

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Family effects

Once a person becomes disabled, his family must offer him physical and psychological care and treatment. At the same time economic burden also increases. Relationship within the family, in the society believing that disability is sin or is bad luck to the family, will deteriorate. Each one blames it on sin committed by other person. There is a mix of emotions like compassion, sympathy, aversion, and boredom among the family members. Sexual relation also becomes a problem causing anxiety, moodiness, and paranoia. The partner has to make some adjustment to avoid the differences, which will eventually lead to divorce or separation.

Part 2: Literatures related to attitudes

Definition of attitude

"Attitude" comes from Latin words "Apto", which means appropriateness, and "Acto" which means physical gesture. These two words are rooted from "Ag" in Sanskrit which means acting or showing (Cacioppo, et al., 1994: 261).

Attitude refers to a person's inner thing to response to something or someone in a particular way. It can not be directly observed or measured but can be understood by looking at the way a person responses to a stimulus (Duangdauen Panthumanavin, 1971 cited in Wairat Jiembanjong, 1981: 44).

Attitude refers to the condition of neurotic and cerebral readiness systemically organized based on experiences. It influences the way and changes in how a person reacts to a situation and things with which it involves (Allport cited in Sathit Niyomyat, 1981: 55).

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Attitude refers to an organizing system of experiences and behavior of a person that is rather stable about someone, object, or situation (Yothin Sansanayut and Jumpol Poolpattrarachivin, 1981: 43).

Attitude is a behavior or psychological feeling towards some social stimulus. It is a feeling caused by knowledge about a stimulus or some experiences (Theeravut Aekakul, 1999: 3).

Mead (1934:5 cited in Handel & Lauer, 1983) “Attitude is form of behavior to show a person’s feeling, thought, and predisposition towards things surrounding him.”

Myers (1996: 125) “Attitude is a response to something or someone, belief, feeling, and behavior in a satisfying and dissatisfying way.”

According to the above, it can be concluded that attitude is an opinion, feeling and tendency of behavior shown towards something as well as a learning reaction and an experience towards a particular stimulus as like-dislike, agree-disagree, satisfying-dissatisfying, and etc.

Components of attitude

According to Yothin Sansanayut and Jumphol Poolpattarachivin (1981: 44) and Theeraporn Uwanno (1986: 4/4), attitude is composed of the followings.

1. Cognitive component involves opinions, belief, or classification of learning experiences, and understanding in relation to the attitude target.
2. Emotional component involves emotions and feelings such as agree-disagree, like-dislike. It often occurs with cognitive attitude.
3. Behavioral component involves a tendency or behavior shown against a target in a various fashion.

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General characteristics of attitude

According to Theerawut Aekakul (1999: 4), there are five general characteristics of attitude.

1. Attitude is a feeling. It may change according to conditions or situations. A person, in particular, pretends to do things and avoids showing his true feeling when he is conscious or aware that he is being watched by other persons.

2. Attitude is typical. A person may feel the same thing and react differently. Or he may react the same way and feel differently.

3. Attitude has direction. Feelings can be expressed in two ways: positive feeling which is a desirable direction by the society, and negative feeling which is an undesirable direction by the society. Examples of this are honesty-dishonesty, love-hatred, like-dislike, diligence-laziness, etc.

4. Attitude has intensity. A person may feel the same thing in the same situation but the intensity of the feeling might be different, e.g., love a lot, love a little, very diligent, not very diligent, etc.

5. Attitude must have target. Feelings cannot just happen, e.g., love for parents, attending every school class, laziness to do homework, etc.

Sources of attitude

Lauer & Handel (1983: 92) “Attitude derives from contact. Contact experiences are various and different. Therefore, attitude of each person is different. Different social contact experiences and different social governing lead to two possibilities: each person can maintain their contradictory attitudes or the observer and each individual in the society have contradictory attitudes only when those attitudes contradict to their existing attitudes. Contact is also a systemic and natural process. Attitude, therefore, can change by such contact.”

Dougflass & Pratkanis (1994: 272-273) “Attitude comes from a different source. However, it brings about the same attitude and, sometimes, a different one. For example, parents and schools have negative attitudes toward premature and premarital

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sex whereas the media does not. Thus, it is difficult to identify the clear result of a specific source without knowing the occurrence of attitude. Followings are sources of attitude.

1. Culture. Every society has an integration of exchange of belief, action, and cultural difference that leads to different attitudes.

2. Generation Impact. Since people grow up in the period they were born, some local and international situations have different impact on people of different generations. Social situations occurred during the childhood will be embedded in a person's mind. They can vanish once people involve in other sources of attitude.

3. Social Role. One person has a different role and each role brings about attitudes. To have many roles may cause a conflict of attitudes. Only the most important attitude and the role a person play most frequently last long.

4. Law. Law is a major source of attitude. It is not clear whether the law itself or its content that causes attitude. But the certain thing is if law is effective, people definitely develop their attitudes in accordance with it.

5. Media. Media is also a major source of attitude. Several researches report the link between violence in the movie and positive attitudes with aggressiveness. The outcome of media messages may seem little but they are important to the society.

6. Institutes. In this case, institutes refer to ones with a control of information for people such as prison, regiment, etc. Attitude and behavior are built here but the attitude only lasts until a person leaves the place.

7. School. Schools are a source of knowledge which may be based on attitudes relating to social matters or politics. Public schools have lower impact on attitudes towards a certain matter than private schools.

8. Parents and family. Parents are an important source of attitude because this source has a long-term effect. Parents transmit information and attitudes to their children. Whether attitudes are similar depends on the closeness between parents and child. The closer they are, the more similar attitudes they possess.

9. Friends and other groups of children. Once grow up, children need friends and friends are a new source of attitude.

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10. Direct experience. The strongest attitude occurs when a person is faced with a direct experience. For example, a person should experience more when bitten by a dog than when he hears that other person is bitten by it.

Attitude and behavior

Lauer & Handel (1983: 92-96) say that there is a significant difference between attitude and behavior. Attitude is a person tendency to show his behavior in a certain way but attitude does not always define behavior. Main characteristics of attitude are:

1. Attitude is interdependent. Each of our behavior may be drawn from more than one attitude. It is impossible to say that this attitude creates that behavior. Besides, an attitude that creates a behavior is different from our attitude towards an object. For example, some people have negative attitudes toward capitalism but oppose to getting rid of it. Behavior always comes from several attitudes.

2. Attitude has dimensions. Attitude is composed of perception, emotion, and behavior. Psychologists say that behavioral attitude may seem less than other dimensions because behavior can be created by environmental factors and it may differ from attitude of a person.

3. Extrapolated attitudes differ from existential attitudes. Extrapolated attitude is what we think that we will think, feel, and behave against a certain situation. Existential attitude is what we think, feel, and act in a certain situation. Extrapolated attitude is not the same as existential attitude because people may forget to consider certain situations that arouse the changes in our thinking, emotion, and behavior.

4. Attitude can be either direct or indirect. Direct attitude involves with expected objects the most while indirect attitude has less involvement with the attitude target. The more direct, the more it involves with other attitudes and more influence on a certain behavior, which is contrary to indirect attitude.

5. Attitude can be primary or secondary. Primary attitude is very important for a person because it concerns oneself and other things related to one-self. It is responsible for maintaining self-concept which is not only difficult to measure but is also the most important when we want to understand the behavior occurred. Secondary attitude is based on information and contact with other people.

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6. Attitude becomes a behavioral factor in a certain situation together with other factors. Such behavior occurs from attitudes and surrounding situations and such situations may contain undesirable factors to make us choose to have or not to have that behavior.

Function of attitude

Lauer & Handel (1983: 96-98) say that attitude affects behavior in different ways and sometimes the effects can be indirect. Functions of attitude can be classified as:

1. Attitude influences psychological process. Attitude affects perception and learning, for example, a study on Perception of Students in Football Game, the students were told to watch the match filled with violence between the two teams and violation of rules. Attitude towards the game influences their perception. This perception is likely to correspond with their existing attitude and the things or perception contradictory to their existing attitude will enter less into their learning process.

2. Attitude may act as an ecological variable. In order to understand human behavior, one must understand what his situation and self-concept at that time is and a group of people presented in that situation. When people try to maintain their self-concept, they usually involve attitudes. They try to maintain only their best attitude or understand how important their attitude is to people in the group. This has a direct effect on a person's behavior.

3. Attitude serves as a selection mechanism in the contact process. In a normal situation, people seem to choose to be in contact with those of similar attitudes. A person's choice to be in contact with other persons depends on their attitudes toward the group to which other persons belong. For examples, we choose to make friends with people who share the same attitudes towards politics and religion. A person chooses the doctor with the same racial background as the ones he has met. These processes show that attitudes serve as a selection mechanism in a person's contact process.

4. Attitude acts as a behavior prevention factor. Attitude does not only refer to a tendency to think, feel, and express, but also a tendency not to think, feel, and express.

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This can be attitudes regarding work habit, receipt of objects, and change of attitudes are part of a social structure and help prevent behaviors unsuitable for such a society.

5. Attitude affects a person's behavior of attitude target. An individual's attitude affects a behavior of a person he or she has contact with. For example, attitudes of the whites shape behaviors and personality of the blacks.

6. Attitude performs a change and influences a change direction. Inconsistency of attitudes and changes occurred will lead to a change of attitudes. New attitudes will respond to future situations which will lead to a change of contact or a change of attitude again or both.

Attitude measurement

Attitude measurement is a complicated process. It is a measurement of a person's internal characteristic involving emotions and feelings or psychological characteristics which easily change and is unstable. However, attitude of a person towards something can be measured by using the following principles (Theeravut Aekakul, 1999: 4-5).

1. Basic assumptions concerning attitude measurement must be accepted as

1.1. Opinion, feeling, or attitude of a person remains unchanged for a certain period of time. Our feeling does not change all the time and there is at least some moment that it is stable enough to be measured.

1.2. A person's attitude can not be measured or seen directly. The measurement must be indirect from his tendency to express or do something regularly.

1.3. Apart from expressing in the form of thought and feeling, such as pro and con, attitudes contain its dimension as well. The measurement not only reveals the nature and direction of attitude but also its intensity and quantity.

2. Any measurement methods must consist of 3 things: a person to be measured, a stimulus such as action and a subject to show an attitude towards, and a degree of response. To measure attitude of a person toward something, a stimulus, mostly a statement about what it contains, is shown to a person to urge him to express his feelings toward it at a level or intensity of agreement or objection.

3. The most common stimuli to arouse or urge a person to show his attitude towards something is called attitude statements. They are a linguistic stimulus to

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describe values and characteristics of something to make a person respond in an attitude continuum or scale e.g. high, medium, low, and etc.

4. Attitude measurement to yield a direction and level of a person's feeling is a summary of his response from different details or aspects. Therefore, each of his values and characteristics must be brought out for measurement. The results, either a partly or in the whole, are combined as a summary of his attitude. For the most accurate results, it is extremely important to make sure that the measurement covers every characteristic.

5. Attitude measurement must be based on the validity of the measurement. The results must be consistent with the reality of a person both in terms of direction, level or range of attitudes.

Based on Davis & Ostrom (1994: 113), there are certain things to consider when creating or selecting an attitude scale; they are 1) attitude object 2) attitude construct relating to the research purpose 3) response domain.

Attitude object

Attitude can be measured by the diversity of behavior, thinking, and way of thinking. Attitude may be specific such as attitude towards a person or a movie. Attitude may refer to a social group, for example, an Irish loves to gamble. Attitude may be general and not having a physical existence such as attitude towards war, towards conservatism. However, it must be perceived by other people's way of thinking and can be exchanged and tested.

Attitude construct

Many organizations regard attitudes as a hypothetical construct, a specific type of construct that can be assessed and respond to the positive and negative attitude object. Attitudes can be assessed in two ways: directions and extremity. There are other attitude constructs that the researchers may want to measure. For examples, there may be different aspects of attitude toward belief like extensiveness, consistency,

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or dimensionality. Attitudes vary according to how they involve with a person's value and his basic needs. These cause the difference at the level of attitude involvement.

Response domain

Although attitude can not be seen directly, it can be visible when aroused and needs to respond. Attitude psychologists divide responses into 3 groups: 1) emotional response is an emotional and psychological response of person to a stimulus 2) perceptive response is an attitude toward stimuli in terms of information, belief, and implication 3) cognative response is how a person reacts toward stimuli.

A selection of response depends on 1) theoretical qualification of an attitude selected and 2) level of response, described in the research, and the assessment must access any of the responses above. Feeling can be positive or negative. Belief can be favorable or unfavorable. Behavior can be supportive or antagonistic. In order to measure these, the researcher must indicate the type of response selected.

Types of attitude measurement

Attitude measuring methods compiled by Theeravut Aekakul (1999: 18-19) can be summarized as follows.

1. Interview is the easiest and most direct approach. The interviewer needs to prepare the questions carefully and the questions must express the respondents' feelings that can correctly measure their attitude. The only shortcoming of this approach is that the respondents may not give sincere answers as they are afraid to show their point of view. To solve this, create a friendly atmosphere for the interviewees to make them feel comfortable, relaxed, and independent. Make sure that their answers are kept confidential.

2. Observation is an act of watching other people and systemically taking notes of their behavior to learn their attitude, belief, and character. Whether or not data obtained is accurate depends on many factors. The observation should be a repetitive process as people's attitudes are caused by many reasons. The observer

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must remain neutral and is without any bias. The observation should take place at different period of time.

3. Self-report demands that the respondents express their feelings as being stimulated. In another word, a question stimulates the respondents to show their true feelings. Apart from the tests or scaling approaches of Thurstone, Guttman, Likert and Osgood mentioned above, there are many other tests and self-report approaches constructed with specific purposes and measurement.

4. Projective techniques require many situations for the respondents such as incomplete sentence, strange picture, and strange story. Upon seeing these, the respondents form the mental images that are to be interpreted. Their answers give a rough idea of what their attitudes towards target attitudes are like.

5. Physiological measurement requires electrical tools and is constructed to measure only feelings capable of changing physical electricity. For examples, when a person is happy, the pointer points to one direction and when a person is sad, it points to the other direction. It functions the same way as the polygraph. It is not widely used due to its poor improvement.

Ladda Kitivipart (1995: 78, 98-99) “Attitude measurement classified by types of calculation is often used by the psychologists.” She also provides the modern methods for computer-based calculation as:

Attitude scales can be divided into two major types.

1. External Prediction Scale
2. Representational scales

1. External Prediction Scale

They are used to predict external behaviors such as election behavior, consumer behavior, interrelation behavior, drug use behavior, and etc. The properties are evaluated by means of figures, words, or markings on the straight line. Examples of these are Thurstone’s Attitude Scale, Likert’s Attitude Scale, Osgood’s Attitude Scale, and other scales such as Smiley Face Scale.

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Thurstone's Attitude Scale requires a lot of statements. Experts are needed to judge and calculate the norm of each text. The 11 levels of statements with the norm, low standard deviation, and quartile deviation (Q) below 1.67 are chosen.

Likert's Attitude Scale is easy, convenient, fast, and reliable and is with high accuracy. It is designed by assigning statements for a certain group to assess without the need for an expert's judgment. Opinions are assessed in 5 ranges. Statements are selected using an individual analysis with t-test or an internal consistency.

Osgood's Attitude Scale uses a pair of different meaning adjectives to classify attitudes towards concepts. There are three dimensions of assessment: valuation, potential, and activity.

Smiley Face Scale is designed to assess attitudes of 5-year-old and above children where children are told to choose the smiley face according to their degrees of satisfaction in order to assess their thinking or feeling. Broad smiling face represents high satisfaction and frown face represents low satisfaction.

2. Representational Scales

Representational scales use a mathematic process to deduce an attitude of a person. Examples of these include Thurstone's Comparison Judgment Scale, Bodagus's Social Interval Scale, and Guttman's Attitude Scale.

Thurstone's Comparison Judgment Scale is his old scale using a scale conversion as the norm of each statement.

Bodagus's Social Interval Scale measures a behavioral attitude to see whether a person is likely to accept or deny some action toward the attitude target. It is usually reserved for people with different races or different qualifications.

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Guttman's Scale measures the attitude constancy. It is difficult to construct but the answers are highly reliable.

In conducting an attitude measurement via direct observation and projective techniques, one must not forget that attitude is only one cause of a behavior.

Part 3: Literatures related to physical therapists

To be able to understand the nature of physical therapy work, meaning, and importance, it is necessary to review literatures related to it. In this part, related literatures are reviewed as:

Definitions of physical therapy

The World Confederation for Physical Therapy (2004) describes physical therapy as follows.

Physical therapy is a service provided to people to develop, maintain and restore maximum movement and functional ability throughout the lifespan. Physical therapy includes the provision of services in circumstances where movement and function are threatened by the process of ageing or that of injury or disease.

Physical therapy is concerned with identifying and maximizing movement potential, within the spheres of promotion, prevention, treatment and rehabilitation. Physical therapy involves the interaction between physical therapist, patients, families and caregivers, in a process of assessing movement potential and in establishing agreed upon goals and objectives using knowledge and skills unique to physical therapists.

The physical therapists' distinctive view of the body and its movement needs and potential is central to determining a diagnosis and an intervention strategy and is

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consistent whatever the setting in which practice is undertaken. These settings will vary in relation to whether physical therapy is concerned with health promotion, prevention, treatment or rehabilitation

Physiotherapy Association of British Columbia (2003) defines physical therapy as a professional health care discipline directed primarily towards the prevention or alleviation of movement dysfunction in people. A physical therapist is a university graduate of physical therapy program who is qualified to:

1. Establish a physical diagnosis and determine a patient's movement potential.
2. Plan and implement physical therapy treatment programs, using specialized knowledge and skills for the prevention and treatment of movement dysfunction.
3. Undertake related professional activities such as research, teaching, administration and consultation.

Physical therapy is an action performed on human concerning an assessment, diagnosis, and rehabilitation of physical disorders caused by an illness or disordered mobility as well as a health promotion, prevention, correction and restoration of physical and psychological dysfunction using physical therapy methods or a use of physical therapy tools or instruments certified by the Ministry of Health (Medical Registration Division, 1999: 3).

Scope of work

World Confederation for Physical Therapy (2004) describes the physical therapist work as:

Physical therapy is an essential part of the health services delivery system. Physical therapists practice independently of other health care providers and also within interdisciplinary rehabilitation/habilitation programs for the restoration of optimal function and quality of life in individuals with loss and disorders of movement. Physical therapists are guided by their own code of ethical principles. Thus, they may be concerned with one of the following purposes:

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1. Promoting the health and well being of the individual and the general public/society.

2. Preventing impairments, functional limitations, and disabilities in individuals at risk of altered movement behaviours due to health or medically related factors, socio-economic stressors, and lifestyle factors.

3. Providing interventions to restore integrity of body systems essential to movement, maximize function and recuperation, minimize incapacity, and enhance the quality of life in individuals and groups of individuals with altered movement behaviours resulting from impairments, functional limitations, disabilities.

Physical therapy is offered in many places depending on its objectives.

Treatment and Rehabilitation often occurs in the community and health centers. Examples of these are:

Hospices
Hospitals
Nursing homes
Rehabilitation centers / residential homes
Physical therapist private offices
Out-patient clinics
Community settings: primary health care centers: individual homes: field settings
Education and research centers

Prevention and Health Promotion can be found in the followings where treatment and rehabilitation are combined in one place.

Fitness centers /health clubs/spas
Occupational health centers
Schools
Senior citizen centers
Sports centers
Workplace/companies

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Public settings-i.e. shopping malls-for health promotion

The 2003 Ministry of Health Rules on Restrictions and Conditions for Clinical Arts Operation for the Clinical Arts Operations in Physical Therapy has defined some roles for the physical therapist to be able to work with physicians and personnel of other careers as a team. The rules include:

1. The physical therapy practitioners are entitled to admit the patients to perform an assessment and diagnosis using physical therapy methods as:

1.1. A general physical evaluated examination

1.2. An assessment and diagnosis for a nervous system, muscular and skeletal system, blood circulation and respiratory systems, and movement development in children.

1.3. A physical movement examination using an active movement, passive movement, and accessory movement.

1.4. An electrodiagnosis specifically for physical therapy

1.5. An analysis of gaits

1.6. An examination for the cause of pain

1.7. An assessment of body dysfunction caused by an illness

2. The physical therapy practitioners must practice the followings methods for health promotion and prevention, treatment and rehabilitation.

2.1. Massage, bending, traction

2.2. Active exercise and passive exercise

2.3. Water treatment and water exercise

2.4. Drainage of sputum or secretion or other wastes from the lung together with rehabilitation of heart and lung.

2.5. Thermotherapy

2.6. Physical therapeutic instrument treatment.

2.7. Translocation of patients and locomotion rehabilitation

2.8. Practice of mobility development in children

2.9. Use of accessories to accompany the treatment

2.10. Other methods of physical therapy certified by the Profession Board.

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3. The licensed practitioners are allowed to use only the physical therapy drugs that are not in the form of ingestion or injection.

According to Vijit Thauenchuen (1998: 28-29), there are five roles and responsibilities of physical therapists.

1. Physical therapy treatment is a medical work in the area of physical therapy performed in the service center in different types of patients with physical and mobility disability or in those that have lost their physical functioning due to the cause of disease or injury by means of physical therapy or physics method such as coldness, massage, bending and traction, exercise, and etc.

2. Rehabilitation work requires special knowledge and skills to assess, analyze, and diagnose the physical disability. Coordination with rehabilitation personnel is necessary.

3. Prevention and promotion work is a study, survey, analysis, education, counseling, community mobile service, or an operation to combine the physical therapy technology with the art of management in order to prevent the disease, upgrade health of a person and his efficiency to maintain his good health.

4. Teaching (academic) is a change process of a student's behavior. Teachers must develop a curriculum to create a teaching/learning plan and a systemic test and they must possess some experiences in physical therapy. It is, therefore, necessary to create a system that allows for career development for the best interest of the people.

5. Management and planning or counseling work is to study, survey, analyze, make plans or projects, and make suggestions as well as to perform a follow-up work.

Physiotherapy Association of British Columbia (2003) describes that physical therapy is a combination of the healthcare system component. Physical therapists work closely with the occupational therapists, speech pathologists, nurses, social workers, respiratory technicians, physicians, and etc. They treat patients referred to them by doctors. In this process, the individual treatment program is offered with the patient's participation. Physical therapy is a direct link between the physical therapists and patients.

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Part 4: Related literatures

Florian (1982: 291-299)'s study on "Cross cultural differences in attitudes towards disabled persons: A study of Jewish and Arab youth in Israel", conducted with 510 Jewish and 655 Arabs using the Attitudes Toward Disabled Persons scale (ATDP scale) as an instrument, found that the Jewish had more positive attitudes towards disabled persons than the Arab and the Jewish who had contact experiences with disabled persons had better attitudes towards them than those who had not which is in contrast with the Arabs. Florian concluded that attitudes towards disabled persons were reinforced by experiences in interaction with them.

Benham (1988: Abstract)'s findings on "Attitudes of occupational therapy personnel toward persons with disabilities" using the Scale of Attitude toward Disabled Persons (SADP), conducted with 619 occupational therapists, were the occupational therapists had very positive attitudes toward persons with disabilities. It was believed that negative attitudes led to poor treatment. No difference was found between attitudes of the occupational therapists with different position, field of work, work experience, and domicile.

Palmer, et al. (2000)'s study on "An examination of attitudes toward disabilities among collage students: rural and urban differences", conducted with 391 urban and rural populations who are an undergraduate and a graduate using the Attitudes Toward Disabled Persons scale (ATDP scale), Scale of Attitudes toward Disabled Persons (SADP), and Rehabilitation Situation Inventory (RSI) as instruments indicated that attitudes of the rural and urban students were similar regardless of the size of the community. It was also found that every group had positive attitudes toward disabilities. No differences were found between genders in all the 3 scales.

Chan, et al. (2002: 324-338)' on "Attitudes toward people with disabilities between Chinese rehabilitation and business students: an implication for practice." Samples were 73 students who majored in rehabilitation services for persons with

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disabilities and 107 students who majored in business. The educational test was conducted with the samples in their first year in school and again in their third year. The study showed that in their first year, rehabilitation students had better attitudes toward persons with disabilities than the business students. At the end of the second academic year, the first had even better attitudes toward persons with disabilities whereas the latter had even worse attitudes toward them. No difference was found in the rehabilitation students in terms of contact with persons with disabilities but in the business students, those having contacts with them had better attitudes; while those not having any contact with them had even worse attitudes. The third year test showed that students who major in rehabilitation services for persons with disabilities had much better attitudes toward people with disabilities while business students had much worse attitudes toward them. It was concluded that course of study and contact with disabled persons affected attitudes toward them

Tervo, et al. (2002: 1537-1542) on "Medical students' attitudes toward persons with disability: A comparative study", conducted with the first year medical students of which 46 were from the US and 44 from Canada. The following tests were used: Attitude Toward Disabled Persons scale (ATDP scale), Scale of Attitude toward Disabled Persons (SADP), and Rehabilitation Situations Inventory (RSI). Findings were in general, the medical students' attitudes toward persons with disabilities were positive. No differences were found between the first year medical students from the US and Canada. Gender and experiences with persons with disabilities influenced attitudes. Male were likely to have negative attitudes. Besides, experiences in some fields of study were necessary to enhance positive attitudes toward disabled persons.

Zamir, et al. (2002) on "Attitudes of male and female students from the school of health professions and from the computer sciences faculty in Tel-Aviv University toward persons with disability" in 80 students (40 men and 40 women aged between 19-27 years), using the ATDP scale as a measurement. Its findings were female students had more positive attitudes toward persons with disabilities. There was no difference of attitudes between the students from the School of health professions and from the computer sciences faculty. The study also found that students having a

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person with disability as their family member tended to have more positive attitudes towards disabled person than those not having a person with disability as their family member. Students' race significantly and statistically influenced their attitudes toward persons with disabilities.

Rungsri Srisuwan (1996) on "A study of attitude toward mentally ill patients and toward mentally ill patient care of nursing students" Samples were nursing students. The instruments included self-concept scale, attitudes toward mentally ill patients scale, and attitudes toward the care of mentally ill patients scale. The last two were self-constructed. Summary of the results were the nursing students had negative attitudes toward mentally ill patients but had positive attitudes toward the care of them. Students with different age, responsible body, domicile, and experience of health and mentally ill nursing course had the same attitudes toward mentally ill patients and their care. Students' self-concept did not relate to attitudes towards mentally ill patients and their care.

Sawana Pobsuk (1993) on "Attitudes of teachers and administrators toward children with mental retardation and education integration." Samplings were 78 of teachers and administrators; the instruments constructed by the researcher were used to measure attitudes. The study found no difference between attitudes toward mentally retarded children of teachers of the two schools. But the attitude scores of integrated school teachers were higher. The integrated kindergarten administrators and the normal kindergarten administrators had different attitudes toward mentally retarded children and integrated study. Teachers and administrators of the integrated kindergarten had the same attitudes toward retarded children and integrated study but the administrators had higher mean. The study also showed the difference of attitudes toward retarded children and integrated study between the groups having and not having teaching experiences or experiences relating to retarded children. Teachers and administrators with a bachelor degree and lower than a bachelor degree had the same attitudes toward retarded children and education integration.

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Eberhardt & Mayberry (1995: 629-636)'s study on "factors influencing entry-level occupational therapists' attitudes toward persons with disabilities" using the Disability Social Distance Scale (DSDS) (Tringo, 1970) to measure attitude toward persons with disabilities showed that the occupational therapist had positive attitudes toward persons with disabilities. It indicated that the respondents who showed high level of nonclinical contacts with disabled persons had positive attitudes toward them. And people who worked with non-disabled persons had better attitudes than the respondents who worked with people with biomechanism and neurology disabilities.

Gething (1993)'s findings on "Attitudes toward people with disabilities of physiotherapists and members of the general population", using the Interaction with Disabled Persons (IDP scale) to measure attitudes toward persons with disabilities, were the physical therapists had positive attitudes toward persons with disabilities. There was no difference between attitudes of the physical therapists with different gender, age, and level of education. The difference was found between the physical therapists with different contact.

Mantziou, et al. (2002: 1141-1146)'s findings on "Attitudes of registered nurses and student nurses to disabled children", using the ATDP scale-form O, were the registered nurses and student nurses had negative attitudes towards disabled persons. The student nurses had more positive attitudes than the registered nurses with no statistically significant difference. It was also found that the total samplings of different gender had the same attitudes. When considered the group of registered nurses and the group of student nurses, there was no difference between genders as well. Female had higher scores of attitudes towards disabled persons than male. The total sampling and the student nurses had statistically significant difference in attitudes when compared between ages. There was also statistically significant difference in the student nurses with different educational setting.

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Tervo, et al. (2004: 908-915) on “Health professional student attitudes towards people with disability” conducted with the graduates and undergraduates in University of South Dakota found the difference in fields of study but not between genders in attitudes towards people with disability.

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CHAPTER III
MATERIALS AND METHODS

This research is a survey research to examine attitudes of physical therapists toward persons with physical disabilities according to the following variables: gender, types of workplace, and their contact with disabled persons. Dependent variables are attitudes of physical therapists toward disabled persons. Followings are the research procedures.

Populations

The populations were 586 physical therapists working in Bangkok and its suburbs: Nonthaburi, Pathumthani, Samutprakarn, Nakornpathom, and Samutsakorn, and who were members of the Physical Therapy Association of Thailand. The study was conducted from October-November, 2004 (Physical Therapy Association of Thailand, 2003)

Samples

Samples were the physical therapists working in Bangkok and its suburbs who were members of the Physical Therapy Association of Thailand. The ratio is 0.80 : 0.20 (Table 1)

Inclusion Criteria:

1. Have a minimum of a bachelor degree in Physical Therapy.
2. Acquire a physical therapy license.
3. Be a physical therapy professional.

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Table 1: Numbers and Ratio of Physical Therapist Working in Bangkok and Its Suburbs

Province	Year			
	2001		2003	
	N	Ratio	N	Ratio
Bangkok	598	1 : 0.76*	455	1 : 0.78*
Suburbs	184	1 : 0.24**	131	1 : 0.22**
Nonthaburi	45		38	
Pathumthani	49		30	
Samutprakarn	48		36	
Nakornpathom	25		21	
Samutsakorn	17		6	
Total	782	1 : 1	586	1 : 1

Ratio* calculated by $N_{total} : N_{Bangkok}$

Ratio** calculated by $N_{total} : N_{Suburbs}$

Sample size was calculated by using the 3 variables. There must be at least 10 data in each level of variables (Boontham Kijpredaborisuth, 1997: 68). Therefore, the sample size equals (Gender x Type of workplace x level of contact with disabled person) x 10 = (2 x 4 x 3) x 10 = 240 persons.

Of all 450 questionnaires sent to the physical therapists by mailing, 60.67 % of them (N=273) were returned. Eighteen of the questionnaires were disqualified and incomplete. Therefore, only 255 them (56.67%) were analyzed.

Research Instruments

The research instruments can be divided into 4 parts as:

Part 1: Screening Questionnaire

Part 2: Demographic Questionnaire

Part 3: Contact with Disabled Persons Scale (CDP Scale), Thai version

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Part 4: Attitude Toward Disabled Persons Scale (ATDP Scale)-form A, Thai version

Part 1: Screening Questionnaire

It is aimed to screening the respondents who work as the physical therapy professional and have inclusion criteria utterly (Appendix A).

Part 2: Demographic Questionnaire

This questionnaire aims to obtaining the demographic data of the respondents, which includes gender, type of workplace, and characteristic of work. Answers are filled and marked (✓) in the blank. There are consisted of 8 questions (Appendix A).

Part 3: Contact with Disabled Persons Scale (CDP Scale), Thai version

The CDP scale, Thai version, has been translated from Contact with Disabled Persons Scale constructed by Harold E. Yuker and Michael K. Hurley in 1987 (1987: 145-157) to measure the quality and quantity of contact with disabled persons (Appendix A).

Validity

The CDP scale was translated into Thai and was checked for content validity by 3 experts (Appendix B). Then, it was revised and corrected according to their suggestions.

Reliability

The revised version of the CDP scale, Thai version, was tested on 30 samples to find its reliability.

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The internal consistency reliability was conducted by using Cronbach's Coefficient Alpha (Boontham Kijpreedaborisuth, 1999: 212). The formula was presented as follow:

$$r_{\alpha} = \frac{k}{K-1}\left(1 - \frac{\sum S_i^2}{S_x^2}\right)$$

When K = Numbers of item in the scale

$\sum S_i^2$ = Total variance of each score

S_x^2 = Variance of total score

The Cronbach's Coefficient Alpha was 0.83, which is regarded as highly reliable.

Instrument Components

The CDP scale is the Likert type scale. It is consist of 20 questions and can be divided into 2 types:

1) Number 1-12 : measuring quantity and pattern of contact0
2) Number 13-20 : measuring feeling

Scoring and Interpretation

Scoring

The CDP scale is assessed in 5 levels:

Never	=	1
Once or twice	=	2
A few times	=	3
Often	=	4
Very often	=	5

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Despite the positive and negative questions appeared in the CDP scale, the rating process remains the same.

Interpretation

The total scale scores range from 20 to 100 and can be described as:

20 scores = Lack of contact with disabled persons

100 scores = Highest contact with disabled persons

The scores of contact with disabled persons are divided into 3 levels by researcher.

Low : the score ranges between 20-46

Medium : the score ranges between 47-73

High : the score ranges between 74-100

Part 4: Attitude Toward Disabled Persons Scale (ATDP Scale)-form A, Thai version

The ATDP scale, Thai version, has been translated from The Attitudes Toward Disabled Persons Scale-form A constructed and developed by Harold E. Yuker & J. R. Block (1960-1985) in 1960. The scale, of which the Likert's scale is used to measure attitudes, applies to both the disabled and non-disabled persons. It aims to identifying whether disabled persons differ from non-disabled persons or they should or should not be treated as non-disabled persons.

Validity

The ATDP scale was translated into Thai and was checked for content validity by 3 experts (Appendix B). Then, it was revised and corrected according to their suggestions

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Reliability

The revised version of the ATDP scale, Thai version, was tested on 30 samples to find its reliability.

The internal consistency reliability was conducted by using Cronbach's Coefficient Alpha (Boontham Kijpreedaborisuth, 1999: 212). The formula was presented as follow:

$$r_{\infty} = \frac{k}{k-1}\left(1 - \frac{\sum S_i^2}{S_x^2}\right)$$

When K = Numbers of item in the scale

$\sum S_i^2$ = Total variance of each score

S_x^2 = Variance of total score

The Cronbach's Coefficient Alpha was 0.76, which is regarded as highly reliable.

Instrument Components

This ATDP Scale-form A, Thai version, is a 6-Likert type scale and consists of 30 questions (Appendix A).

Scoring and Interpretation

Scoring

The questionnaire was characterized by 6-Likert type scale which range from totally agreement to totally disagreement. There are no neutral answers.

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Positive questions consist of number 5, 9, 12, 14, 17, 19, 21, 22, 23, 24, 25 and 29 and the scoring criteria are:

Agree very much	=	-3
Agree pretty much	=	-2
Agree a little	=	-1
Disagree a little	=	+1
Disagree pretty much	=	+2
Disagree very much	=	+3

Negative questions consist of number 1, 2, 3, 4, 6, 7, 8, 10, 11, 13, 15, 16, 18, 20, 26, 27, 28 and 30 and the scoring criteria are:

Agree very much	=	+3
Agree pretty much	=	+2
Agree a little	=	+1
Disagree a little	=	-1
Disagree pretty much	=	-2
Disagree very much	=	-3

Once the total scores were summed up, the next process was to:

1. Change the mathematic sign of the total score. For example, the total score of -11 will be changed to +11

2. Add 90 to the total score for a final result, e.g., (+11) + 90 = 101 scores.

Each item is calculated for a scoring. If the item is imcompleted, but no more than 4 items, a 0 score will be given; if there were missing more than 4 (10 %), an error will occur and the set of data will not be analyzed.

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Interpretation

The total scores range from 0 to 180

The low score refers to negative attitude which means the sample thinks disabled persons are different or inferior to non-disabled persons.

The high score refers to positive attitudes which means the sample thinks disabled persons are not different from non-disabled persons.

The scores of attitude toward disabled persons are divided into 3 levers by researcher:

Low	:	the score ranges between 0-60
Medium	:	the score ranges between 61-120
High	:	the score ranges between 120-180

Data Collection

Data collection was performed by mailing to the physical therapists who are the member of the Physical Therapy Association of Thailand. Followings are its procedures.

1. Prepare the introduction letter issued by the Faculty of Graduate Studies, Mahidol University to inform the physical therapist who participated in the research and to requested their cooperation in completing the questionnaire (Appendix A).
2. Create the code to count the rate of returned and unreturned questionnaires and to resend them to those that have not returned the questionnaire.
3. Send the introduction letter and questionnaires to the physical therapists (first sending).
4. Fifteen days after mailing, a postal card was sent to those that have not returned their questionnaires to inform them of the need and necessity for their cooperation.
5. Fifteen days after that (1 month after the first sending), a letter was sent to describe the need and necessity for the physical therapists' participation in the research and the questionnaires was also sent to those that had not yet returned it (second sending) to ask for their cooperation again.

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6. Once fifteen days have passed (after the second sending), another postal card was sent to request the physical therapist to complete the questionnaire.
7. Fifteen days after that (1 month after the second sending), a thank you letter was mailed to the physical therapists who participated in the research.
8. Examined for their completeness and perform a further statistical analysis.

Statistics and Analysis

Data collected was analyzed by using Program SPSS V 9.0 for Window:

1. Statistics used for analyzing demographic data of the respondents were frequency distribution, mean, standard deviation, and percentage.
2. Statistics used for analyzing the score of Contact with Disabled Persons were mean and standard deviation.
3. Statistics used for analyzing the score of attitudes of physical therapists toward persons with physical disabilities were mean and standard deviation.
4. Data were checked whether they are normal distribution using the Kolmogorov-Smirnov test.
5. Compare the difference of the attitudes of physical therapists toward persons with physical disabilities according to gender, type of workplace, and level of contact with disabled persons, using the Mann-Whitney U test and Kuskal-Wallis H test, between 2 groups and more respectively since abnormal distribution exists.

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CHAPTER IV
RESULTS

This study aims to identify the attitudes of the physical therapists toward persons with physical disabilities and to compare the attitudes of physical therapists between gender, type of workplace, and contact with disabled persons. Results are presented in the following categories:

Section 1: Demographic Data

Section 2: Contact with Disabled Persons Scores

Section 3: Comparison of Attitudes Toward Disabled Persons (ATDP) of The Physical Therapists classified by Gender, Type of Workplace, and Level of Contact with Disabled Persons

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Section 1: Demographic Data

Table 2: Number and Percentage of Demographic Data Classified by Gender

Demographic Data	Gender				Total	
	Male		Female			
	N	%	N	%	N	%
Gender	60	23.5	195	76.5	255	100
Age						
20-30 years	36	60	117	60	153	60
31-40 years	7	11.7	49	25.1	56	22
41-50 years	14	23.3	23	11.8	37	14.5
51-60 years	0	0	6	3.1	6	2.3
>60 years	3	5	0	0	3	1.2
Work experiences						
≤ 10 years	41	68.3	151	77.4	192	75.3
11-20 years	2	3.4	22	11.3	24	9.4
21-30 years	14	23.3	19	9.7	33	13
31-40 years	3	5	3	1.6	6	2.3
Work experiences with disabled persons						
≤ 10 years	41	68.3	159	81.5	200	78.5
11-20 years	2	3.4	18	9.2	20	7.8
21-30 years	14	23.3	15	7.7	29	11.4
31-40 years	3	5	3	1.6	6	2.3
Education						
Bachelor degree	51	85.0	169	86.7	220	86.3
Master degree or higher	9	15.0	26	13.3	35	13.7
Work Status						
Full-time	54	90.0	163	83.6	217	85.1
Part-time	6	10.0	32	16.4	38	14.9

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Table 2: Number and Percentage of Demographic Data Classified by Gender (Cont.)

Demographic Data	Gender				Total	
	Male		Female			
	N	%	N	%	N	%
Place of work						
Bangkok	55	91.7	149	76.4	204	80.0
Suburbs	5	8.3	46	23.6	51	20.0
Type of workplace						
Public	27	45.0	68	34.9	95	37.3
Private	32	53.3	101	51.8	133	52.2
Rehab	1	1.7	17	8.7	18	7.0
Others	0	0	9	4.6	9	3.5

Public = Public hospital or health center
Private = Private hospital or health center
Rehab = Rehabilitation center or institution for disabled person
Others = Special education school and / or university

From table 2, the samples are composed of 255 physical therapists, of which 76.5% (N=195) are female and 23.5% (N=60) are male. 60% (N=153) of the samples are between 20-30 years. 75.3% (N=192) have less than or equal to 10 years of working experiences. 78.5% (N=200) have less than or equal to 10 years of working experiences with disabled persons. 86.3% (N=220) hold a bachelor degree while 13.7% (N=35) hold a master degree or higher.

Full-time work was 85.1% of the samples (N=217) and part-time work was 14.9% (N=38). 80% of the samples work in Bangkok (N=204) and 20% in its suburbs (N=51). The majority (N= 133, 52.2%) work in the public hospital or health center while the minority (N=9, 3.5%) work in other workplaces such as special education school and / or university.

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Table 3: Number and Percentage of Work Characteristic of the Sampling Classified by Gender

Work Characteristic	Gender				Total (N=255)	
	Male (N=60)		Female (N=195)			
	N	%	N	%	N	%
Prevention & Promotion						
Regularly	31	51.7	98	50.3	129	50.6
Occasionally	29	48.3	86	44.1	115	45.1
Never	0	0	11	5.6	11	4.3
Treatment						
Regularly	58	96.7	180	92.3	238	93.3
Occasionally	2	3.3	11	5.6	13	5.1
Never	0	0	4	2.1	4	1.6
Rehabilitation						
Regularly	53	88.3	153	78.5	206	80.8
Occasionally	7	11.7	37	19.0	44	17.2
Never	0	0	5	2.5	5	2.0
Academic Matter						
Regularly	12	20.0	37	19.0	49	19.2
Occasionally	45	75.0	119	61.0	164	64.3
Never	3	5.0	39	20.0	42	16.5
Administration						
Regularly	8	13.3	49	25.1	57	22.4
Occasionally	30	50.0	80	41.0	110	43.1
Never	22	36.7	66	33.9	88	34.5

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From Table 3, approximately 88% of males and 78% of females perform regularly work on treatment and rehabilitation. About 50% of the samples perform regularly work on prevention & promotion. It also shows that 60-70% and 40-50% of the total samples perform occasionally work on academic matters and administration respectively.

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Table 4: Number and Percentage of Work Characteristic Classified by Type of Workplace

Type of Workplace		Work Characteristic														
		Prevention & Promotion			Treatment			Rehabilitation			Academic Matters			Administration		
		Regularly	Occasionally	Never	Regularly	Occasionally	Never	Regularly	Occasionally	Never	Regularly	Occasionally	Never	Regularly	Occasionally	Never
Pubic	**N**	51	39	5	95	0	0	83	9	3	32	61	2	24	54	17
	%	53.7	41.0	5.3	100	0	0	87.4	9.5	3.1	33.7	64.2	2.1	25.3	56.8	17.9
Private	**N**	71	56	6	125	8	0	106	27	0	3	92	38	28	43	62
	%	53.4	42.1	4.5	94.0	6.0	0	79.7	20.3	0	2.1	69.2	28.6	21.1	32.3	46.6
Rehab	**N**	4	14	0	14	2	2	15	1	2	5	11	2	4	7	7
	%	22.2	77.8	0	77.8	11.1	11.1	83.3	5.6	11.1	27.8	61.1	11.1	22.2	38.9	38.9
Others	**N**	3	6	0	4	3	2	2	7	0	9	0	0	1	6	2
	%	33.3	66.7	0	44.4	33.3	22.3	22.3	77.7	0	100	0	0	11.0	66.7	22.3

Public = Public hospital or health center
Private = Private hospital or health center
Rehab = Rehabilitation center or institution for disabled person
Others = Special education school and / or university

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Table 4 shows that approximately 87% of the physical therapists working in the public hospital or health center, 79% in the private hospital or health center, and 77% in the rehabilitation center or institution for disabled persons perform regularly work on treatment and rehabilitation. While 100% of physical therapists who work in the special education school and / or university perform regularly work on academic matters. 64.2% of physical therapists working in the public hospital or health center, 69.2% in private hospital or health center, and 61.1% in rehabilitation center or institution for disabled persons perform occasionally work on academic matters.

Section 2: Contact with Disabled Persons Scores

Table 5: Mean and Standard Deviation on Contact with Disabled Persons Scale (CDP Scale)

Variables	Contact with disabled persons scores	
	Mean ± SD	**N**
CDP score (22-92)	52.33 ± 11.74	255
Quantity & Pattern*	31.67 ± 7.61	255
Feeling*	20.80 ± 5.17	255

Quantity & Pattern* derived from the sum of No. 1 to 12

Feeling* derived from the sum of No. 13 to 20

From Table 5, the samples' scores of contact with disabled persons range between 22-92 with the mean score of 52.33 ± 11.74, which implies medium level of contact. The full score of quality and pattern equal 60 which average score equal 31.67 ± 7.61. And the full score of feeling equal 40 which average score equal 20.80 ± 5.17. Both scale score show medium level of contact with disabled persons.

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Table 6: Scores of Contact with Disabled Persons (CDP) Classified by Gender and Type of Workplace

Variables	Scores of Contact with Disabled Persons (22-92 scores)									Total		
	High (74-100)			Medium (47-73)			Low (20-46)					
	Mean ± SD	N	%	Mean ± SD	N	%	Mean ± SD	N	%	Mean ± SD	N	%
Gender												
Male	92.00 ± 0.00	3	1.2	57.39 ± 6.23	49	19.2	41.36 ± 2.13	8	3.1	56.98 ± 11.30	60	23.5
Female	75.00 ± 0.00	5	1.9	56.97 ± 6.83	121	47.5	38.51 ± 5.74	69	27.1	50.90 ± 11.53	195	76.5
Type of Workplace												
Public	92.00 ± 0.00	3	1.2	56.63 ± 6.30	68	26.7	40.67 ± 3.57	24	9.4	53.72 ± 11.31	95	37.3
Private	0	0	0	57.67 ± 6.92	83	32.6	37.96 ± 6.16	50	19.6	50.26 ± 11.65	133	52.2
Rehab	75.00 ± 0.00	5	1.9	58.00 ± 5.23	13	5.1	0	0	0	62.72 ± 8.98	18	7.0
Others	0	0	0	52.17 ± 8.38	6	2.3	38.00 ± 5.20	3	1.2	47.44 ± 10.04	9	3.5
Total	**81.38 ± 8.80**	**8**	**3.1**	**57.09 ± 6.65**	**170**	**66.7**	**38.81 ± 5.53**	**77**	**30.2**	**52.33 ± 11.74**	**255**	**100**

Public = Public hospital or health center
Private = Private hospital or health center
Rehab = Rehabilitation center or institution for disabled person
Others = Special education school and / or university

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As for contact with disabled persons classified by gender and types of work shown in Table 6, male (N=60, 23.5%) has the mean score of 56.98 ± 11.30 and female (N=195, 76.5%) has the mean score of 50.90 ± 11.53, which is medium level of contact. Contact with disabled persons classified by types of workplace shows that the samples working in the rehabilitation center or institution for disabled persons (N=18, 7.0%) indicated the highest mean score (62.72 ± 8.98) while those working in the special education school and / or university (N=9, 3.5%) indicated the lowest mean score (47.44 ± 10.04).

According to Table 6, the scale scores of contact with disabled persons are divided into 3 levels: high (N=8, 3.1%), medium (N=170, 66.7%), and low (N=77, 30.2%). The mean scores of the high level equal 81.38 ± 8.80, the mean score of medium level equal 57.09 ± 6.65, and the mean score of low level equal 38.81 ± 5.53.

Section 3: Comparison of Attitudes Toward Disabled Persons (ATDP) of The Physical Therapists classified by Gender, Type of Workplace, and Level of Contact with Disabled Persons

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Table 7: Scores of Attitudes Toward Disabled Persons Classified by Gender, Type of Workplace, and Level of Contact with Disabled Persons (CDP)

Variables	Scores of Attitudes Toward Disabled Persons (73-148 scores)									Total		
	High (121-180)			Medium (61-120)			Low (0-60)					
	Mean ± SD	N	%	Mean ± SD	N	%	Mean ± SD	N	%	Mean ± SD	N	%
Gender												
Male	136.00 ± 0.00	3	1.2	100.95 ± 6.63	57	22.3	0	0	0	102.70 ± 10.05	60	23.5
Female	130.61 ± 9.34	18	7.0	99.41 ± 8.89	177	69.5	0	0	0	102.29 ± 12.70	195	76.5
Type of Workplace												
Public	123.00 ± 0.00	2	0.8	100.62 ± 9.56	93	36.5	0	0	0	101.09 ± 9.99	95	37.3
Private	128.38 ± 5.38	13	5.1	98.48 ± 7.39	120	47.1	0	0	0	101.41 ± 11.46	133	52.2
Rehab	0	0	0	103.33 ± 7.66	18	7.0	0	0	0	103.33 ± 7.66	18	7.0
Others	140.67 ± 9.33	6	2.3	104.33 ± 2.31	3	1.2	0	0	0	128.56 ± 19.64	9	3.5
Level of CDP												
High	0	0	0	104.25 ± 7.48	8	3.1	0	0	0	104.25 ± 7.48	8	3.1
Medium	134.73 ± 9.50	11	4.3	100.03 ± 7.89	159	62.4	0	0	0	102.27 ± 11.70	170	66.7
Low	127.70 ± 6.63	10	3.9	98.67 ± 9.52	67	26.3	0	0	0	102.44 ± 13.43	77	30.2
Total	**131.38 ± 8.82**	**21**	**8.2**	**99.78 ± 8.41**	**234**	**91.8**	**0**	**0**	**0**	**102.38 ± 12.11**	**255**	**100**

Public = Public hospital or health center
Private = Private hospital or health center
Rehab = Rehabilitation center or institution for disabled person
Others = Special education school and / or university

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Table 7 shows that attitudes of physical therapists toward disabled persons obtained scale score range between 73-148 and means score of ATDP equal 102.38 ± 12.11. The scale score indicated that the physical therapists had attitude level from medium to high toward persons with physical disabilities. It can be described based on the ATDP scale that the physical therapists had a positive attitude toward persons with physical disabilities which mean that persons with physical disabilities was equal or the same as normal persons and they deserve to be treat equally.

3.1. Attitudes Toward Disabled Persons Classified by Gender

Table 8: The Comparison of Mean ATDP scores between Male and Female by Using Mann-Whitney U test

	Gender	Mean Rank	Mann-Whitney U	Z	Asym. Sig (2-tailed)
ATDP	**Male**	133.78			
	Female	126.22	5503.000	-0.695	0.487

According to Table 7, the male physical therapists had the mean score of attitude toward disabled persons (ATDP) (102.70 ± 10.05) higher than female physical therapists (102.29 ± 12.70). There was no statistically significant difference on attitudes toward persons with physical disabilities (p-value > 0.05) (Table 8).

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3.2. Attitudes Toward Disabled Persons Classified by Type of Workplace

Table 9: The Comparison of Mean ATDP Scores among Types of Workplace by Using Kuskal-Wallis H test

		Mean Rank	Chi-Square	df	Asym. Sig.
ATDP	**Public**	129.20			
	Private	118.85			
	Rehab	142.75			
	Others	221.00	17.131	3	0.001*

*p-value < 0.05

Public = Public hospital or health center

Private = Private hospital or health center

Rehab = Rehabilitation center or institution for disabled person

Others = Special education school and / or university

Table 9 revealed that there was at least one pair having statistically significant difference between the mean ATDP score of type of workplace (p-value < 0.05).

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Table 10: The Comparison of Mean ATDP Scores between Types of Workplace by Using Mann-Whitney U test

		Mean Rank	Mann-Whitney U	Z	Asym. Sig (2-tailed)
ATDP	**Public**	120.15			
	Private	110.46	5780.500	-1.095	0.274
ATDP	**Public**	55.98			
	Rehab	62.36	758.500	-0.759	0.448
ATDP	**Public**	49.06			
	Others	88.78	101.000	-3.781	0.000*
ATDP	**Private**	74.34			
	Rehab	88.28	976.000	-1.271	0.204
ATDP	**Private**	68.05			
	Others	122.44	140.000	-3.844	0.000*
ATDP	**Rehab**	11.11			
	Others	19.78	29.000	-2.688	0.006* *Exact Sig. [2*(1-tailed Sig.)]*

*p-value < 0.05

Public = Public hospital or health center

Private = Private hospital or health center

Rehab = Rehabilitation center or institution for disabled person

Others = Special education school and / or university

According to the score on attitudes toward disabled persons classified by type or workplace, special education school and / or university had the highest scores (128.56 $\pm$ 19.64) (Table 7).

There was statistically significant difference between special education school and / or university and public hospital or health center on mean ATDP score at p-value < 0.05 (Table 10).

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There was statistically significant difference between special education school and / or university and private hospital or health center on mean ATDP score at p-value < 0.05 (Table 10).

There was statistically significant difference between special education school and / or university and rehabilitation center or institution for disabled person on mean ATDP score at p-value < 0.05 (Table 10).

3.2. Attitudes Toward Disabled Persons Classified by Level of Contact with Disabled Persons

Table 11: The Comparison of Mean of ATDP Scores among Level of Contact with Disabled Persons (CDP) by Using Kuskal-Wallis H test

	CDP Level	Mean Rank	Chi-Square	df	Asym. Sig.
ATDP	**High**	153.25			
	Medium	126.88			
	Low	127.85	0.979	2	0.613

The results show that the high level of CDP scores had the highest mean ATDP score (104.25 $\pm$ 7.48) (Table 7). However, there were no statistically significant difference between level of CDP scores on attitude toward persons with disabilities (p-value > 0.05) (Table 11)

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CHAPTER V
CONCLUSION AND DISCUSSION

This survey research aims to studying the attitudes of the physical therapists toward persons with physical disabilities classified by gender, type of workplace, and level of contact with disabled persons. The samples were 255 physical therapists who are members of the Physical Therapy Association of Thailand and are working in Bangkok (N=204) and its suburbs (N=51).

Data was collected by mailing the questionnaires, from October until November 2004. There were 4 instruments used in this research: 1) Screening questionnaire, 2) Demographic questionnaire, 3) CDP scale, Thai version, and 4) ATDP scale-form A, Thai version. Data was analyzed by using Program SPSS V 9.0 for Window to examine the mean, frequency distribution, percentage, and standard deviation. The Mann-Whitney U test and Kuskal-Wallis H test were used to compare the mean between 2 groups and more than 2 groups respectively.

Demographic of the Samples

In this study, there were female (N=195, 76.5%) more than male (N=60, 23.5%). The ages were between 22 to 63 years and the majority (60%) were between 20-30 years. The duration of professional work and of work with disabled persons (75.3% and 78.5% respectively) were less than or equal to 10 years.

There were the full-time workers (N=217, 85.1%) more than the part-time workers (N=38, 14.9 %). Most samples worked in private hospitals or health centers (N=133, 52.2%) and in public hospitals or health centers (N=95, 37.3%). The characteristic of work is the same as that practiced by any physical therapist. The

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majority of physical therapists performed regularly work on prevention & promotion (N=129, 50.6%), treatment (N=238, 93.3%), and rehabilitation (N=206, 80.8%). Their work signifies the important role of physical therapist and is a common practice. Therefore, they are suitable representatives of the population for this study.

Contact with Disabled Persons

The scores of contact with disabled persons ranged from 22 to 92 with the mean score of 52.33 $\pm$ 11.74, which is considered as medium level. It can be added that the samples have medium quantity and quality of contacts with disabled persons.

Gender factor showed that male (56.98 $\pm$ 11.30) had higher mean scores of contacts with disabled persons than female (50.90 $\pm$ 11.53), of which the scores are medium level. Those sample who worked in the rehabilitation center or institution for disabled persons had the highest mean scores of contact with disabled persons (CDP) (62.72 $\pm$ 8.98) while those sample who worked in the special education school and / or university had the lowest CDP mean scores (47.44 $\pm$ 10.04). Perhaps, this is due to their characteristic of work and opportunities to meet disabled persons since there are more disabled persons receiving physical therapy services at the rehabilitation center or institution for disabled persons than at the special education school and / or university. It can be explained that those worked in the rehabilitation center or institution for disabled persons have experiences in providing them with treatment and rehabilitation service while those in the special education school and / or university have experiences in teaching them.

Attitudes Toward Disabled Persons

The results of this study accept the Hypothesis number 1. The ATDP scores of physical therapists range from 73-148, with the mean score of 102.38 $\pm$ 12.11, which is at medium to high level. According to the ATDP scale, it can be described that the

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physical therapists belief that the persons with physical disabilities were equal or the same as the normal person and they deserve to be treat as the normal person.

The similar results with previous studies, Eberhardt & Mayberry (1995: 629-636) found that the occupational therapists had positive attitudes toward disabled persons. And Tervo, et al. (2002: 1537-1542) showed that the medical students had positive attitudes toward disabled persons. Gething (1993) also found that the physical therapists had positive attitudes toward disabled persons. Contradiction to Mantziou, et al. (2002: 1141-1146) who found that the registered nurses and student nurses did not had positive attitudes toward disabled persons, Rungsri Srisuwan (1996) stated that the student nurses had negative attitudes toward the mentally ill patients. Based on the studies above it might say that since the physical therapists, the occupational therapist, and the medical students emphasized upon treatment and rehabilitation, while registered nurses and the student nurses emphasized upon health care. The attitudes toward persons with disabilities might difference.

The positive attitudes toward persons with physical disabilities of the physical therapists are very important since they are medical personnel who have had experiences with many dimensions of disabled persons and these experiences have great influence on the attitudes direction. Besides, they are regarded as very knowledgeable in terms of disabilities. These are factors to form attitudes ((Dougflass & Pratkanis, 1994: 272-273). It can be said that their positive attitudes toward disabled persons, as shown in this study, result from their working experiences with disabled persons as a professional worker.

Social roles are another factor significantly influenced attitudes (Dougflass & Pratkanis, 1994: 272-273). Since the physical therapists had responsibility for treatment and rehabilitation. Additionally, this factor influence upon the level of contact with disabled persons which are related to positive attitudes toward them (Yuker & Hurley, 1987: 145-157). The physical therapists who had an adequate, cognitive, affective, and appropriated behavior could reflected their positive attitudes toward persons with physical disabilities.

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Another reason that coincides with the results is a behavior of the disabled being rehabilitated since attitudes affect the tendency of a target behavior (Lauer & Handel,1983: 96-98), which is a disabled person. Successful rehabilitation process depends on the cooperation among the physical therapist, disabled person, and their relatives. It requires understanding, interaction, and positive attitudes among them.

Based on the results, the physical therapist has positive attitudes toward persons with physical disabilities. However, the attitude factor can be change. It depends upon other factor to be influenced for each person. Since this research study was limited in terms of budget and length of time. The research should be suggestion to conduct in whole population and at a certain period of time or during major events such as paralynpic games, etc.

Attitudes toward Persons with Physical Disabilities and Gender Factor

According to this results, there were no statistically significant difference between attitudes of male and female physical therapists toward persons with physical disabilities (p-value > 0.05). The mean score on male (102.70 $\pm$ 10.05) and female (102.29 $\pm$ 12.70) toward them are similar. This reject the Hypothesis number 2. It might due to the differences of sample size between female (N=195, 76.5%) and male (N=60, 23.5%). The result was not be found difference.

The results of this study are supported by Gething (1993), Mantziou, et al. (2002: 1141-1146), and Tervo, et al. (2004: 908-915) showed that gender did not differentiate attitudes toward disabled persons. Yuker & Bock (1986: 9), who constructed the ATDP scale, has suggested that the difference between male and female regarding attitudes toward disabled persons requires additional studies. Since, this issue still controversial, difference between gender was found (Tervo, et al., 2002: 1537-1542; Zamir, et al., 2002) and some was not.

From the study, it can be explained that gender is a genetic factor (Chaiwat Panjapong, 1981: 5) whereas attitude is a changeable emotion and uniqueness

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(Theerawut Aekakul, 1999: 4). Gender, therefore, influences attitude. But with its nature mentioned above, it less influence than other factors such as direct experiences with disabled persons. This is probably because gender does not have enough strength to influence the difference in attitudes toward disabled persons; besides the numbers of sample are different. The numbers of male and female samples should, therefore, be made consistent to reflect the true results of gender influence.

Attitudes toward Persons with Physical Disabilities and Workplace Factor

The physical therapists working at different types of workplace have the same attitudes toward persons with physical disabilities (p-value > 0.05) except at the special education school and / or university (p-value < 0.05). It can be explained that the physical therapists working in the public hospital or health center (101.09 $\pm$ 9.99), private hospital or health center (101.41 $\pm$ 11.46), and rehabilitation center and institution for disabled persons (103.33 $\pm$ 7.66) had different attitudes toward persons with physical disabilities from those working in the special education school and / or university (128.56 $\pm$ 19.64) with statistical significance (p-value < 0.05). The attitudes of the special education school and / or university show the highest mean score. Unfortunately, with a small number of samples working in the special education school and / or university (N=9, 3.5%), it is possible that such a difference is a result of it. It can be said that, in general, the results reject the Hypothesis number 3.

Since physical therapist working in the special education school and / or university (N=9, 100%) were responsibility for the academic matter. This is dramatically different from whose work regularly on treatment and rehabilitation. It can be concluded that the different work characteristic between the special education school and / or university and other. It might due to resulted in different attitudes toward persons with physical disabilities.

Eberhardt & Mayberry (1995: 629-636) found that the occupational therapists working with normal people had positive attitude more than those working with disabled persons. Additionally, Sawana Pobsuk (1993) found that the school

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administrators had positive attitudes toward retarded children more than the teachers. This finding coincide with the results of this study that the physical therapists working in the special education school and / or university had positive attitudes toward persons with physical disabilities compared with other types of workplace. It can be said that people who play a different role of work, clinical and non-clinical contact with disabled persons, had different attitudes. Eberhardt & Mayberry (1995: 629-636) found that the occupational therapists who had non-clinical contacts with disabled persons had positive attitudes toward them. Therefore, taking into account the above findings, attitudes toward persons with physical disabilities are influenced by role of work.

However, there are no statistically significant difference on attitudes of physical therapists toward persons with physical disabilities of the public hospital or health center, private hospital or health center, and rehabilitation center or institution for disabled persons. The mean scores of each workplace is very similar which could be due to the similar characteristic of work.

Based on the results, it can be concluded that the physical therapists' scores for their attitudes toward persons with physical disabilities might relate to work characteristic in treatment, rehabilitation, and academic matters. Due to the difference amounts of samples size between the rehabilitation center or institution for disabled persons (N=18, 7%) and the special education school and / or university (N=9, 3.5%), it is possible to explain the finding. Therefore, the further studies should be consider the equal numbers of samples to examine the attitudes toward disabled persons.

Attitudes toward Persons with Physical Disabilities and Contact with Disabled Persons Factor

There were no statistically significant difference on attitudes toward persons with physical disabilities in different level of contact with them: high contact level (104.25 $\pm$ 7.48), medium contact level (102.27 $\pm$ 11.70), and low contact level (102.44 $\pm$ 13.43) (p-value > 0.05), which the Hypothesis number 4 was rejected. Since there

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were uneven number in each level group, the small numbers of physical therapists that belong to the high contact group (N=8, 3.1%) and the numbers of them in each group, which are very different, might be a reason for inconsistent results. This study is supported by Chan, et al. (2002: 324-338), the finding showed that there were no difference in different level of contact in rehabilitation students. However, additionally, Chan, et al. (2002: 324-338) found, against this research, that there were difference of attitudes toward disabled persons in different level of contact with them in business students. In additional, Gething (1993) stated that the different level of contact with disabled persons showed the difference attitudes of physical therapists. And Sawana Pobsuk (1993) found that teachers and school administrators with and without experiences concerning retarded children had different attitudes toward them. Since these two studies used the different instrument from this research, Gething used the Interaction with Disabled Persons (IDP scale) to measure attitudes toward disabled persons and Sawana Pobsuk used the self-made scale to measure them, it might explain that their findings are in contrast to those of this study.

Contact with disabled persons do not distinguish attitudes of the physical therapists toward persons with physical disabilities. It could be that contacts with disabled persons is a personal matter and is not strong enough to cause any difference between them.

In conclusion, gender, type of workplace, and level of contact with disabled persons do not distinguish attitudes of the physical therapists toward persons with physical disabilities. However, it can be noted that their characteristic of work, which require them to work with disabled persons and it brings about a lot of working experiences with them, influences their attitudes toward persons with physical disabilities.

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Suggestions and Future Study

1. Application for Research Finding

1.1. This study will provide fundamental information about attitudes of the physical therapists toward persons with physical disabilities. It should be the guideline for development and enhancement of the attitudes of physical therapists toward persons with physical disabilities.

1.2. This study will improve and apply for curriculum development to enhance and develop the rehabilitation and physical therapy professional.

1.3. This study will provide fundamental information for a future advance study on attitude, physical therapy, and rehabilitation for persons with disabilities.

2. Application for Future Research

2.1. It should be conducted the attitudes of different professional career such as occupational therapist, psychologist and social worker. Thus the results can be used to improve the rehabilitation process.

2.2. It should be conducted research study on the attitudes of the physical therapists toward persons with disabilities through the whole population in Thailand for serving as a fundamental information to develop the knowledge related the attitudes toward disabled persons, which can enhance the attitudes toward them.

2.3. It should be conducted focusing on factor of type of workplace and characteristic of work in the physical therapists and also a similar size of sampling of which the numbers are enough for the study in order to yield clear results for maximum benefits.

2.4. For better comprehension and awareness, it should be conducted on hidden factors in workplace such as satisfaction with work, availability of equipments and settings affecting work of the physical therapists that may influence their attitudes toward persons with physical disabilities.

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APPENDIX

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บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล
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ที่ ศธ 0517.02 (ศย)/ ว. 1475

11 ตุลาคม พ.ศ 2547

เรื่อง ขอความอนุเคราะห์ให้นักศึกษาเก็บข้อมูล เพื่อประกอบการทำวิทยานิพนธ์

เรียน

ด้วย นายสุรเชษฐ์ ลีลาขจรกิจ นักศึกษาบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล หลักสูตรปริญญาโท สาขาวิชางานบริการฟื้นฟูสมรรถภาพคนพิการ วิทยาลัยราชสุดา กำลังทำวิทยานิพนธ์เรื่อง "เจตคติของนักกายภาพบำบัดที่มีต่อคนพิการทางกายและการเคลื่อนไหว" อยู่ในความควบคุมของ อ.ดร.วัจนินทร์ โรหิตสุข ในการศึกษาวิจัยครั้งนี้ นักศึกษามีความประสงค์จะเก็บข้อมูลจากท่านตามรายละเอียดแบบสอบถามที่ส่งถึงท่านทางไปรษณีย์

บัณฑิตวิทยาลัย จึงใคร่ขอความกรุณาจากท่านโปรดอนุเคราะห์ตอบแบบสอบถามให้ข้อมูลแก่นักศึกษา เพื่อประกอบการทำวิทยานิพนธ์ ตามที่เห็นสมควรด้วย จักเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร.รัศมีดารา หุ่นสวัสดิ์)
คณบดีบัณฑิตวิทยาลัย

ติดต่อประธานคณะกรรมการควบคุมวิทยานิพนธ์ อ.ดร.วัจนินทร์ โรหิตสุข
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15 ตุลาคม 2547

เรื่อง ขอความร่วมมือในการตอบแบบสอบถาม

เรียน ผู้ตอบแบบสอบถาม

ข้าพเจ้านายสุรเชษฐ์ ลีลาขจรกิจ นักศึกษาหลักสูตรศิลปศาสตรมหาบัณฑิต สาขาวิชางานบริการฟื้นฟูสมรรถภาพคนพิการ วิทยาลัยราชสุดา บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล กำลังอยู่ในระหว่างการทำวิทยานิพนธ์เรื่อง "เจตคติของนักกายภาพบำบัดที่มีต่อคนพิการทางกายและการเคลื่อนไหว" มีความประสงค์ขอความร่วมมือจากท่านในการตอบแบบสอบถามชุดนี้ซึ่งประกอบด้วย

ตอนที่ 1 ข้อคำถามเพื่อการคัดกรอง

ตอนที่ 2 แบบสอบถามข้อมูลทั่วไป

ตอนที่ 3 แบบวัดการติดต่อสัมพันธ์กับคนพิการ

ตอนที่ 4 แบบวัดเจตคติที่มีต่อคนพิการ

อนึ่งข้อมูลที่ได้จากการตอบแบบสอบถามของท่านมีความสำคัญยิ่งสำหรับการวิจัย จึงมีความประสงค์ขอความกรุณาจากท่านตอบแบบสอบถามนี้ให้ตรงกับความเป็นจริง และครบถ้วนสมบูรณ์ทุกข้อ เนื่องจากข้อคำถามทุกข้อมีค่ายิ่งต่อการวิจัย หากการตอบไม่ครบถ้วนสมบูรณ์ จะไม่สามารถนำแบบสอบถามนี้ไปวิเคราะห์ข้อมูลได้ ผลจากการวิจัยในครั้งนี้จะเป็นประโยชน์ต่อการพัฒนาวิชาชีพทางด้านกายภาพบำบัด และการฟื้นฟูสมรรถภาพคนพิการ หากท่านใดมีความลำบากใจหรือไม่สะดวกที่จะให้ข้อมูล ท่านมีสิทธิที่จะไม่ตอบแบบสอบถามนี้ และผู้วิจัยขอยืนยันว่าข้อมูลที่ได้จะถือเป็นความลับและใช้ประโยชน์เพื่อการศึกษาวิจัย และนำเสนอผลงานวิจัยในภาพรวม ซึ่งจะไม่มีผลกระทบใดๆ อันจะนำมาซึ่งความเสียหายต่อท่าน หรือองค์กรของท่าน

พร้อมจดหมายฉบับนี้ ผู้วิจัยได้แนบแบบสอบถามพร้อมซองตอบกลับ เมื่อท่านกรอกข้อมูลครบถ้วนสมบูรณ์แล้วกรุณาใส่ซองส่งกลับคืนภายในวันที่ 8 พฤศจิกายน 2547

ข้าพเจ้าหวังเป็นอย่างยิ่งที่จะได้รับความร่วมมือจากท่านเป็นอย่างดี และขอขอบพระคุณเป็นอย่างยิ่งที่ท่านเสียสละเวลาอันมีค่าของท่านในการตอบแบบสอบถามนี้มา ณ โอกาสนี้ด้วย

ขอขอบพระคุณในความร่วมมือของท่าน

สุรเชษฐ์ ลีลาขจรกิจ

ผู้วิจัย

โทรศัพท์ที่ติดต่อได้: 0-9689-1409

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แบบสอบถามเจตคติของนักกายภาพบำบัดที่มีต่อคนพิการทางกายและการเคลื่อนไหว

คำชี้แจง

การกายภาพบำบัด ในที่นี้หมายถึง การตรวจประเมิน การวินิจฉัย และการบำบัดความบกพร่องของร่างกายซึ่งเกิดเนื่องจากภาวะของโรคหรือการเคลื่อนไหวที่ไม่ปกติ การส่งเสริมสุขภาพ การป้องกัน การแก้ไข และ/หรือ การฟื้นฟูความเสื่อมสภาพความพิการของร่างกายและจิตใจด้วยวิธีการทางกายภาพบำบัด หรือการใช้เครื่องมือหรืออุปกรณ์กายภาพบำบัด

คนพิการ ในที่นี้หมายถึง คนพิการทางกายและการเคลื่อนไหว ซึ่งอธิบายถึงบุคคลที่มีความผิดปกติ ความบกพร่องทางร่างกายที่สามารถสังเกตได้อย่างชัดเจน และ/หรือ บุคคลที่สูญเสียความสามารถในการเคลื่อนไหว ทำให้ไม่สามารถประกอบกิจวัตรหลัก หรือดำรงชีวิตได้เยี่ยงคนปกติได้

ตอนที่ 1 ข้อคำถามเพื่อการคัดกรอง

คำชี้แจง กรุณาทำเครื่องหมายถูก (✓) ในช่องว่างให้ถูกต้องสมบูรณ์ตามความเป็นจริง

ปัจจุบัน ท่านปฏิบัติงานเกี่ยวข้องกับงานด้านกายภาพบำบัดหรือไม่

❍ ใช่ ❍ ไม่ใช่

หมายเหตุ

ถ้าท่านตอบ **“ใช่”** ในข้อคำถามเพื่อการคัดกรองนี้ **กรุณาตอบ** แบบสอบถามในตอนที่ 2, 3 และ 4 ในหน้าต่อไป

ถ้าท่านตอบ **“ไม่ใช่”** ในข้อคำถามเพื่อการคัดกรองนี้ **ท่านไม่ต้องตอบ** แบบสอบถามในตอนที่ 2, 3 และ 4 และกรุณาส่งแบบสอบถามนี้คืน เพื่อประโยชน์ในการทำวิจัยครั้งนี้

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ตอนที่ 2 แบบสอบถามข้อมูลทั่วไป

คำชี้แจง กรุณาทำเครื่องหมายถูก (✓) ในช่องว่าง และ / หรือ เติมข้อความให้ถูกต้องสมบูรณ์ตามความเป็นจริง

1. อายุ……..ปี
2. อายุการทำงาน……ปี
3. อายุการทำงานกับคนพิการ……ปี
4. เพศ ❍ ชาย ❍ หญิง
5. ระดับวุฒิการศึกษาสูงสุด
   - ❍ ต่ำกว่าปริญญาตรี
   - ❍ ปริญญาตรี สาขา……
   - ❍ สูงกว่าปริญญาตรี
6. ท่านได้รับใบอนุญาตประกอบโรคศิลปะทางกายภาพบำบัดหรือไม่
   - ❍ ได้รับ ❍ ไม่ได้รับ
7. ลักษณะการทำงานของท่าน
   - ❍ ทำงานเต็มเวลา (Full time)
   - ❍ ชั่วคราว / เป็นครั้งคราว (Part time)
   - ❍ อื่นๆ ระบุ……

   7.1 จังหวัด
   - ❍ กรุงเทพมหานคร ❍ นครปฐม
   - ❍ นนทบุรี ❍ ปทุมธานี
   - ❍ สมุทรปราการ ❍ สมุทรสาคร
   - ❍ อื่นๆ ระบุ……

   7.2 ประเภทของสถานที่ทำงาน
   - ❍ โรงพยาบาล หรือสถานพยาบาลของรัฐ
   - ❍ โรงพยาบาล หรือสถานพยาบาลของเอกชน
   - ❍ ศูนย์ฟื้นฟู หรือ สถานสงเคราะห์คนพิการ
   - ❍ อื่นๆ ระบุ……

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8. ในการทำงานของท่าน ท่านปฏิบัติงานในรูปแบบใด

ข้อ	ลักษณะงาน	ปฏิบัติเป็นประจำ	ปฏิบัติเป็นครั้งคราว	ไม่ปฏิบัติเลย
1.	การส่งเสริมและป้องกันสุขภาพ			
2.	การรักษา			
3.	การฟื้นฟูสมรรถภาพ			
4.	งานด้านวิชาการ เช่น การสอน การอบรมวิชาการ			
5.	งานด้านบริหารหน่วยงาน			

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ตอนที่ 3 แบบวัดการติดต่อสัมพันธ์กับคนพิการ

คำชี้แจง กรุณาทำเครื่องหมายถูก (✓) ในช่องว่างให้สมบูรณ์เพื่อแสดงถึงความถี่บ่อยของการติดต่อสัมพันธ์ของท่านที่มีต่อคนพิการ (ตั้งแต่อดีตจนถึงปัจจุบัน)

ข้อ	ข้อความ	ระดับการติดต่อสัมพันธ์				
		เป็นประจำ	บ่อยๆ	เป็นครั้งคราว	นานๆ ครั้ง	ไม่เคยเลย
1.	ท่านพูดคุยกับคนพิการเป็นเวลานานๆ					
2.	ท่านพูดทักทายกับคนพิการ					
3.	ท่านร่วมรับประทานอาหารกับคนพิการ					
. . . . .	. . . . .					
19.	ท่านมีประสบการณ์ที่ดีๆ ในการติดต่อกับคนพิการ					
20.	ท่านมีประสบการณ์ที่ไม่ดีในการติดต่อกับคนพิการ					

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ตอนที่ 4 แบบวัดเจตคติที่มีต่อคนพิการ

คำชี้แจง กรุณาทำเครื่องหมายถูก (✓) ในช่องว่างให้สมบูรณ์เพื่อแสดงถึงความคิดเห็นของท่านว่าเห็นด้วยหรือไม่เห็นด้วยกับข้อความข้างหน้า

ข้อ	ข้อความ	ระดับความคิดเห็น					
		เห็นด้วยอย่างยิ่ง	เห็นด้วยอย่างมาก	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วยอย่างมาก	ไม่เห็นด้วยอย่างยิ่ง
1.	คนพิการมักไม่เป็นมิตร						
2.	คนพิการไม่ควรที่จะต้องแย่งชิงงานกับคนทั่วไป						
3.	คนพิการเป็นคนเจ้าอารมณ์มากกว่าคนทั่วไป						
. . . . .	. . . . .						
29.	คนพิการไม่ต้องการความเห็นอกเห็นใจมากกว่าคนทั่วไป						
30.	การกระทำของคนพิการเป็นที่น่ารำคาญ						

ข้อเสนอแนะ

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……

……

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