**Therapeutic Exercise: An Analytic Survey**

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Therapeutic exercise is a major part of profession­ al physical therapy and the teaching of therapeutic exercise is assuming an over-growing importance in the total education of physical therapist. Based on neurophysiological concepts, new methods have been developed. The purpose of this paper is to come to some agreement about what we mean­ by therapeutic exercise, to analyse a large number of therapeutic procedure, and to identify common denominators among the many approaches to treat­ ment and exert a positive and progressive influence on the present physical therapist in their function and professional growth.

**Historical basis:**

When probing into history, one will invariably find individuals whose personality and convictions created landmarks. Kong Fou ancient china and the ancient Hindus used positioning and movement for the relief of pain and other symptoms. Hippocrates (480BC.) recognized the value of exercise in strengthening weakened muscles. Many Romans, Celsus, Galen, and Aurelianus who listed concepts on physical treatment, wrote much on exercises. Rhazes was the first Arab physician to write book on Hygiene and measure of exercise. A-Vicenna (the middle age) explained the value of exercise to the health. In the 15th, 16th and 17th century, several books were written on Hygiene and the ex­ ercises. In the 1 8th century Francies Fuller wrote the first book on medical gymnastics. In 1780

J.C. Tissot was the Swiss physician who insisted that a knowledge of anatomy was essential in prescribing orthopaedic exercises.

Pehr Henri Ling (1776-1839 - Sweden) demon­ strates that movements, if scientifically applied and brought into harmony with the laws of nature, could serve to remedy disease and bodily defects. He was careful in distinguishing movements of potential curative effect from the concept of exer­ cise in general sense, reveal some of the most commonly used principles in therapeutic exercise and introduced the technique and the mechanico­ organic effect of a movement, manual resisted movement, how therapeutic exercise should be carried out.

H. S. Frankel (1889), explained the treatment of tabetic ataxia is based upon, the education of the central nervous system by means of repeated exer­ cise, whereby it is enabled the receive sufficiently distant stimuli from the limbs as to their position and so on, although the available quantity of sensation is rather small. Robert Lovett (1907) de­ signed the socalled gravity test for possible surgical intervention after poliomyelitis. The muscle training exercise involved logically as the thera­ peutic application of basic principles of the test avoiding stretching of weakened muscle (Mak Ken­ zie). During World war II, rehabilitation procedures were introduced. Herman Kabat placed the basic, currently accepted principles of therapeutic exercise and the "physiological microscope". He introduced new principles by suggesting that "proprioceptive stimulation" facilities the voluntary motor mechanism. The last dimension to therapeutic exercise was added by Margaret Rood. She concludes that the sequence and the events of normal motor development represent the basic principles upon which the therapeutic approach to motor dysfunction must be built. Much of the credit for the rapid growth of the gymnastics movement in the 19 century is given to ling the appearance of specialization started at that century too. The most revolutionary change in exercise connected with medical practice in the twentieth century is concerned with patient activity following major surgery, the reflex arc, reciprocal innervation and inhibition, introduction of normal and pathological reflexes into exercise therapy as well as facilitation, isometric exercises, biofeedback and kinesthetic sensory enhancement or substitution.

**Traditional regimens of therapeutic exercise:**

The traditional regimens are specific routines of exercises that are originally designed for a given disease entity, pathology or injury and which usually bear the name of their founder or of the institution in which the routine was organized. There are current use of traditional regimens in clinical practice, (table 1).

A sample of forms used for analysis of traditional regimens of exercises, originally prepared by Doro­ thy Voss and modified for use at the Northwestern University were developed. Summary of common denominators for the regimens for total body exercise

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