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Correct inequality in health for handicap patients with the development of exercise machine

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The exercise machine for handicap patients is very important for rehabilitation. in Thailand, the conventional machines used in hospitals looked like a cage with steel net on four folds. A major drawback of the conventional one is space requirement at home. Furthermore, its feature and function did not conform user requirements. As a result, the handicap patients were unable to use the machines properly. The aim of this research is to develop the exercise machine based on the handicap patients' need with concept full function and comfortable on space limitation.

The method of study consists of five steps as follows:

- 1) home visiting for collecting general data,
- 2) checking the patient's ability and surveying his/her requirement,
- 3) setting ultimate goals from multi-professionals including family physician, physiotherapist, nurse and engineers,
- 4) designing the machine using software and building the prototype, and
- 5) testing a machine at the patient's home. The frame of the developed machine is made of X-Frame Aluminum.

It can be used by the patient with a weight up to 200 kg. Furthermore, the patients can use the machine to exercise their body, hands, legs or any body part in various directions. This helps the patients to exercise as suggested by physiotherapy programs and to improve quality of the patient's life. Moreover, with the development of exercise machine correct inequality in health for handicap patients to tantamount with normal patients.

Keywords: Exercise machine, handicap patients, inequality in health