

3rd International Conference and Expo on

Physiotherapy

October 13-15, 2016 Kuala Lumpur, Malaysia

Implications of manufacturing a cost-effective domestic aquatic physiotherapy device in under developed countries

Ibrahim Ragab

Beni Suef University, Egypt

Many practitioners of hydrotherapy feel that water has significant curative properties and that, unlike other medicinal agents, is not harmful or potentially toxic. Aquatic physiotherapy promotes both physical and psychological functions using effects of buoyancy, dragging forces and partial immersion. Increasing demands on public and private expenditure, competitive tendering of public services and greater awareness of water and energy conservation issues augment the importance of aquatic physiotherapy. Maintenance and service providing greatly affects cost of sessions. Design of aquatic therapy devices necessitates knowledge which is critical to producing a satisfactory design. I designed a rectangular fiberglass pool of a reasonable thickness with round corners and broad edges. Inside measurements of the device are 3.5 m long x 2 m wide x 1.7 m depth. There are 3 water inlets, 1 skimmer and 1 for drain fitting. Proper housing of the device, plumbing fixation accessories and sanitation permit an effective structure hence, ambulation, exercises and hydro-massage are easily executed. A 2 hour circulation plan in this aquatic therapy device with operating temperatures of over 32 Celsius degrees was chosen as indicated by Australian Standards (AS3979). The hydro-massaging of water jets when controlled, is gentle and is capable of being applied to patients who are under great pain. The massaging effect of water currents serves to stimulate skin, nerves and muscular tissues. There is a safety belt anchored to a pulley in the ceiling helps upright position ambulation. However, the pressure to find more cost-effective ways to operate aquatic physiotherapy pools is the prime motivator as it is an expensive item.

Biography

Ibrahim Ragab has completed his PhD from Cairo University. He is a Lecturer in the Department of Physical Therapy for Orthopedics & Orthopedic Surgery at Beni Suef University. He has published a paper on "Safe Cosmetic Leg Lengthening for Short Stature: Long-Term Outcomes" *Healio Orthopedics*, July 2015-Vol 38. Issue 7: e552-e 560.

dr.ibrahimragab@outlook.com

Notes: