

Hydrotherapy with Dual Sensory Impairment (Dsi)-Deaf and Blind

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Abstract : Background: Case study examining hydrotherapy for a person with DSI. A 46 year-old lady completely deaf and blind post congenital rubella syndrome. Touch becomes the primary information gathering sense to optimise function in life. Communication is achieved via tactile finger spelling and signals onto her hand and skin. Hydrotherapy may provide a suitable mobility environment and somato-sensory input to people, and especially DSI persons. Buoyancy, warmth, hydrostatic pressure, viscosity and turbulence are elements of hydrotherapy that may offer a DSI person somato-sensory input to stimulate the mechanoreceptors, thermoreceptors and proprioceptors and offer a unique hydro-therapeutic environment. Purpose: The purpose of this case study was to establish what measurable benefits could be achieved from hydrotherapy with a DSI person. Methods: Hydrotherapy was provided for 8-weeks, 2 x week, 35-minute session duration. Pool temperature 32.5 degrees centigrade. Pool length 25-metres. Each session consisted of mobility encouragement and supervision, and activities to stimulate the somato-sensory system utilising aquatic properties of buoyancy, turbulence, viscosity, warmth and hydrostatic pressure. Somato-sensory activities focused on stimulating touch and tactile exploration including objects of various shape, size, weight, contour, texture, elasticity, pliability, softness and hardness. Outcomes were measured by the Goal Attainment Scale (GAS) and included mobility distance, attendance, and timed tactile responsiveness to varying objects. Results: Mobility distance and attendance exceeded baseline expectations. Timed tactile responsiveness to varying objects also changed positively from baseline. Average scale scores were 1.00 with an overall GAS t-score of 63.69. Conclusions: Hydrotherapy can be a quantifiable physio-therapeutic option for persons with DSI. It provides a relatively safe environment for mobility and allows the somato-sensory system to be fully engaged - important for the DSI population. Implications: Hydrotherapy can be a measurable therapeutic option for a DSI person. Physiotherapists should consider hydrotherapy for DSI people. Hydrotherapy can offer unique physical properties for the DSI population not available on land.

Keywords : chronic, disability, disease, rehabilitation

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