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Enhancing Awareness of Aquatic-Based Occupational Therapy Services Across the Lifespan

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Abstract

Title: Enhancing Awareness of Aquatic-Based Occupational Therapy Services Across the Lifespan

Background: Occupational Therapists (OTs) possess the expertise to address diverse conditions within various environments, including aquatic settings. Aquatic Therapy in OT harnesses water's unique properties, leveraging hydrodynamics principles like buoyancy, resistance, and hydrostatic pressure (Mortimer et al., 2014). Water's attributes can improve balance, coordination, strength, and proprioception without land-induced impact (Iliescu, 2020). Despite growing research, aquatic interventions for adults remain underutilized in OT (Carroll et al., 2022). Literature showcases aquatic therapy's effectiveness for neurological conditions, orthopedic injuries, and balance issues (Curcio, 2020). Studies suggest that OTs may lack exposure to aquatic therapy (Saloko et al., 2017).

Purpose: This project aimed to elevate awareness of aquatic-based OT services by: 1) crafting educational resources and hosting workshops for clinicians and students, 2) gauging satisfaction and knowledge among participants, and 3) assessing the educational resources' impact on aquatic therapy program quality.

Methods: Considered a Quality Improvement (QI) project by MUSC IRB, this doctoral capstone involved an Intro to Aquatic Therapy Lecture and Lab for clinicians and students, aquatic boot camp classes for cancer survivors, and a case report for an individual with SCI. Data, collected via pre/post-knowledge tests, satisfaction surveys, and RedCAP queries, included qualitative and quantitative measures.

Results: Analysis revealed heightened confidence, satisfaction and awareness of aquatic therapy among clinicians and students, alongside enhanced quality of life for boot camp and 1:1 session participants. Data were analyzed using descriptive statistics and content analyses.

Conclusions: This Doctoral Capstone enhanced the awareness of aquatic-based occupational therapy services. The project showcased the efficacy of educational resources for clinicians and students. Future endeavors could focus on continuing education, advocacy, and investigating long-term patient outcomes and interdisciplinary collaboration.

Resources

Carroll, L. M., Morris, M. E., O'Connor, W. T., Volpe, D., Salsberg, J., & Clifford, A. M. (2022). Evidence-Based Aquatic Therapy Guidelines for Parkinson's Disease: An International Consensus Study. *Journal of Parkinson's disease*, *12*(2), 621–637. <u>https://doi.org/10.3233/JPD-212881</u>

Curcio, A., Temperoni, G., Tramontano, M., De Angelis, S., Iosa, M., Mommo, F., Cochi, G., & Formisano, R. (2020). The effects of aquatic therapy during post-acute neurorehabilitation in patients with severe traumatic brain injury: a preliminary randomized controlled trial. Brain injury, 34(12), 1630–1635. https://doi.org/10.1080/02699052.2020.1825809

Iliescu AM, McIntyre A, Wiener J, et al. Evaluating the effectiveness of aquatic therapy on mobility, balance, and level of functional independence in stroke rehabilitation: a systematic review and meta-analysis. Clinical Rehabilitation. 2020;34(1):56-68. doi:10.1177/0269215519880955

Mortimer, R., Privopoulos, M., & Kumar, S. (2014). The effectiveness of hydrotherapy in the treatment of social and behavioral aspects of children with autism spectrum disorders: A systematic review. *Journal of Multidisciplinary Healthcare, 7*(default), 93-104. <u>https://doi.org/10.2147/JMDH.S55345</u>

Nissim, M., Rottenberg, Y., Karniel, N., & Ratzon, N. Z. (2024). Effects of aquatic exercise program versus on-land exercise program on cancer-related fatigue, neuropathy, activity and participation, quality of life, and return to work for cancer patients: study protocol for a randomized controlled trial. BMC Complementary Medicine and Therapies, 24(1), 74.

Recio, A. C., Stiens, S. A., & Kubrova, E. (2017). Aquatic-Based therapy in spinal cord injury rehabilitation: effective yet underutilized. *Current Physical Medicine and Rehabilitation Reports*, *5*, 108-112.

Saloko, E., Murti, B., & Adriani, R. B. (2017). Empowerment of occupational therapists in aquatic programs for improving the development of children with neurodevelopment disorder. *Journal of Maternal and Child Health, 2*(4), 345-355. https://doi.org/10.26911/thejmch.2017.02.04.05