Author Year Country Research Design Score Total Sample Size	Methods	Outcome
Aquatic Therapy (AT)		
García-Rudolph et al. 2024b Spain Case control Level 3 N = 58	**Population:** 580 participants with acute (within 2 months after injury) SCI. • Aquatic therapy (AT) group (n = 29): 15M, 14F Mean (SD) age: 52.7 years. Cause of injury: Traumatic (n = 7) and non-traumatic (n = 22). Injury level: Paraplegia (n = 24) and tetraplegia (n = 5). AIS A (n = 4), B (n = 3), C (n =4), and D (n = 18). Mean time since injury: 37.6 days. • Matched historical controls (n = 29): 18M, 11F Mean age: 48.2 years. Cause of injury: Traumatic (n = 9) and non-traumatic (n = 20). Injury level: Paraplegia (n = 24) and tetraplegia (n = 5). AIS A (n = 5), B (n = 5), C (n = 8), and D (n = 13). Mean time since injury: 31.6 days. **Treatment:** A group of patients who received inpatient rehabilitation that included AT were compared to matched controls who had received inpatient rehabilitation that did not include AT (non-AT). • Inpatient rehabilitation: This program totalizes 4 h daily of intensive treatment from the multidisciplinary team oriented toward training in ADLs (1 h), physical rehabilitation (2 h) and gait rehabilitation (1 h) for a total of 10 weeks. ○ ADL training involved activities targeted at the patients' needs such as transfer practice,	1. Gains, efficiency, effectiveness and MCID: 1:1 matching (n = 58): No significant differences were observed for FIM or SCIM-III gains, efficiency and effectiveness. Significant differences were observed in WISCI II gain (p = 0.018) and WISCI II efficiency (p = 0.046), in favor of the AT group, and quasi-significant differences were observed in WISCI II effectiveness (p = 0.088) also in favor of the AT group. Furthermore, the proportion of individuals achieving MCID (i.e., a change of two WISCI II points) was significantly higher (p = 0.030) for the AT group (75.9% vs. 48.3%).

	washing, dressing, grooming and wheelchair skills. ○ Physical rehabilitation included strengthening, stretching, and joint mobilization exercises. ○ Gait rehabilitation incorporates the use of BWSTT (Lokomat®), BWSOGT using the Andago®, as well as the use of standard treadmills, and orthosis-walking with the aid of walking frames as appropriate to the patient's evolution • Intervention group (AT): Individuals in the intervention group received rehabilitation as explained before, but in their case AT sessions replaced 1 h of physical rehabilitation within the daily 4 h of total therapy. All interventions consisted of 60-min sessions, three times per week, for a total of 10 weeks. The intervention was based on the Halliwick concept. **Outcome Measures:** Gain, efficiency, and effectiveness for the FIM, SCIM-III and WISCI II were calculated as follows: • Gain = score at discharge − score at admission. • Efficiency = Gain/length of stay (LOS). • Effectiveness = Gain/(maximum scale score − score at admission) x 100.	
Underwater Treadmill Training (UTT)		
Morgan & Stevens 2022 USA Pre-post Level 4 N = 5	**Population:** 5 participants with AIS A SCI; 4 males and one female; mean age 41.6 years; level of injury T4 (n = 1), T9 (n = 1), T10 (n = 1), and T11 (n = 2); and mean time since injury 3.18 years. **Treatment:** Participants embarked on a year-long training program of 2 to 3 sessions of underwater treadmill training (UTT) per week performed on alternate days, and supplemental OWT,	1. An average of 29 training sessions (range = 9–62 sessions) was required for participants to register unassisted stepping activity during UTT. 2. There were significant improvements in WISCI II levels from T3 (8.40 ± 1.34), compared to T1 (0.20 ± 0.45)

	which were distributed in the following manner: • UTT: Walking speed or duration, trainer's facilitation of gait, and reliance on upper-extremity support while walking were progressed individually until independent walking in the water for 45 min without experiencing fatigue and without need for assistance of the trainers was achieved. • After independent stepping was recorded during UTT, a systematic and individualized program of supplemental OWT for 30 min was performed before the UTT (with 5 stages of different functional exercises and tasks). **Outcome Measures:** WISCI II was assessed prior to UTT (T1), six months after starting UTT (T2), and immediately following completion of UTT (T3).	(P = .039), but not between T1 and T2 or T2 and T3. 3. Individual data revealed that all study participants registered a marked improvement in WISCI II level over the 12-month training program (mean change = 8.2; range = 6–9) that corresponded with a large effect size (r = .65). 4. All participants progressed to the fourth level of OWT and one of them, progressed to the fifth level of OWT.
Stevens et al. 2015 USA Pre-Post Level 4 N = 11	**Population**: 7 males and 5 females; average age 47.7y; >1y post injury; AIS C and D. **Treatment**: Participants completed 8 weeks (3 × /week) of UTT. Each training session consisted of three walks performed at a personalized speed, with adequate rest between walks. BWS remained constant for each participant and ranged from 29 to 47% of land body weight. Increases in walking speed and duration were staggered and imposed in a gradual and systematic fashion. **Outcome Measures:** Lower-extremity strength, preferred and rapid walking speeds, 6MWT, and daily step activity.	1. Participants improved in leg strength (57%), preferred walking speed (34%), rapid walking speed (61%), 6MWT (82%), and daily step activity (121%) following UTT.