

Hydrotherapy

Current Awareness Newsletter

Summer 2017



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Training Calendar 2017

All sessions are 1 hour

May	(13.00)
Fri 26 th	Interpreting Statistics
Wed 31 st	Critical Appraisal
June	(12.00)
Thurs 1 st	Literature Searching
Thurs 8 th	Interpreting Statistics
Tues 13 th	Critical Appraisal
Thurs 29 th	Literature Searching
July	(13.00)
Mon 3 rd	Interpreting Statistics
Wed 12 th	Critical Appraisal
Fri 21 st	Literature Searching
Wed 26 th	Interpreting Statistics

Your Outreach Librarian – **Helen Pullen**

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Outreach: Your Outreach Librarian can help facilitate evidence-based practice for everyone in the team, as well as assisting with academic study and research. We also offer one-to-one or small group training in **literature searching, critical appraisal and medical statistics**. Get in touch: library@uhbristol.nhs.uk

Literature searching: We provide a literature searching service for any library member. For those embarking on their own research it is advisable to book some time with one of the librarians for a one-to-one session where we can guide you through the process of creating a well-focused literature research. Please email requests to library@uhbristol.nhs.uk

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Updates

NICE National Institute for
Health and Care Excellence

Searched but nothing relevant to add to this section



[Exercise for haemophilia](#)

Karen Strike , Kathy Mulder and Rojer Michael

Online Publication Date: December 2016

Review

You have free access to this content

[Aquatic exercise for the treatment of knee and hip osteoarthritis](#)

Else Marie Bartels , Carsten B Juhl , Robin Christensen , Kåre Birger Hagen , Bente Danneskiold-Samsøe , Hanne Dagfinrud and Hans Lund

Online Publication Date: March 2016

Journal Tables of Contents

Click on the journal title (+ Ctrl) for the most recent tables of contents. If you would like any of the papers in full text then please email the library:

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[Musculoskeletal Science and Practice](#)

May 2017, Volume 29 (Formerly, Manual Therapy)

[Physiotherapy](#)

June 2017, Volume 103, Issue 2

[BMJ](#)

Link to articles from the last seven days and the wider archive

[Spine](#)

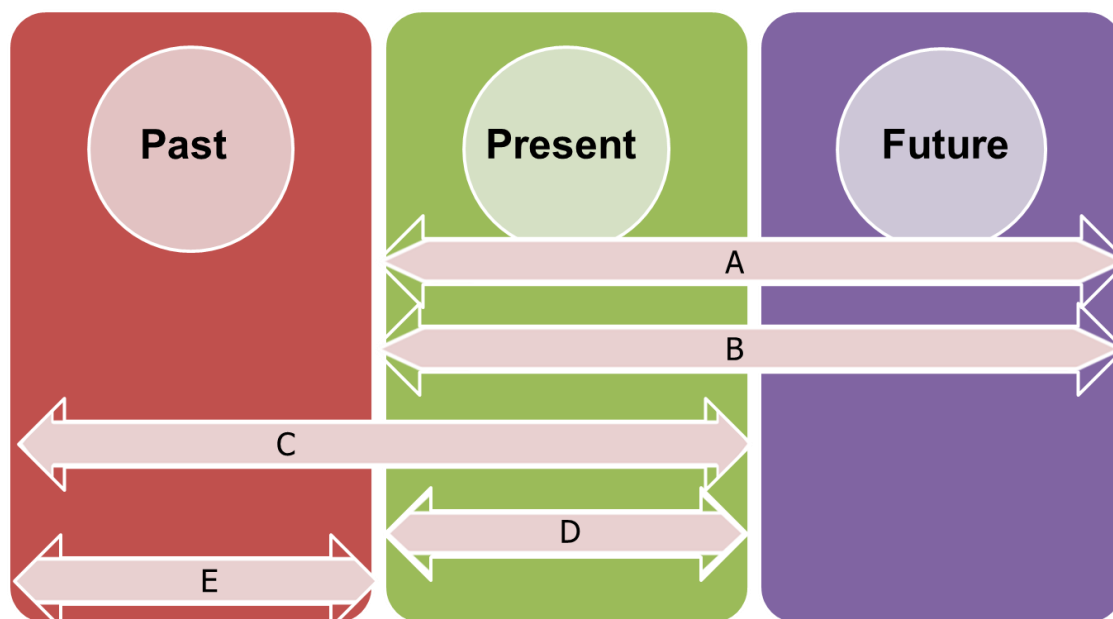
May 15 2017, Volume 42, Issue 10

[British Journal of Sports Medicine](#)

May 2017, Volume 51, Issue 10

Exercise: Study Design Timeframes

Match the study design with the timeframe it covers.



1. Randomised Controlled Trial
2. Cross-Sectional Study
3. Case-control Study
4. Cohort Study
5. Case Report

Find out more about study designs in one of our training sessions.
For more details, email library@uhbristol.nhs.uk.

Answers: 1A/B; 2D; 3C; 4A/B; 5E

Current Awareness Database Articles related to Hydrotherapy

If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch:

library@uhbristol.nhs.uk

1. Exercise training in older adults, what effects on muscle oxygenation? A systematic review.

Author(s): Fiogbé, Elie; de Vassimon-Barroso, Verena; de Medeiros Takahashi, Anielle Cristhine

Source: Archives of gerontology and geriatrics; Jul 2017; vol. 71 ; p. 89-98

Publication Date: Jul 2017

Publication Type(s): Journal Article Review

Abstract:AIMTo determine the effects of different modality of exercise training programs on muscle oxygenation in older adults.METHODSRelevant articles were searched in PubMed, Web of Science, Science Direct and Scopus, using the keywords: "Aged" AND "Muscle oxygenation" AND (Exercise OR "Exercise therapy" OR "Exercise Movement Techniques" OR Hydrotherapy), without limitation concerning the publication date. To be included in the full analysis, the study had to be a randomized controlled trial in which older adults participants (mean age: 65 years at least) were submitted to an exercise-training program and muscle oxygenation assessment.RESULTSThe searches resulted in 1238 articles from which 7 met all the inclusion criteria. The trials involved 370 older adults (68.7±1.7years), healthy and with peripheral arterial disease. Studies included resistance and endurance exercises as well as walking sessions. Training sessions were 2-6 time per week, lasted 3-24 months and with different training intensity throughout studies. After a long-term resistance training, healthy older adults showed enhanced muscle oxygen extraction capacity, regulation of vessels and vascular endothelium function; endurance training is reported to improve microvascular blood flow and matching of oxygen delivery to oxygen utilization, muscle oxidative capacity and muscle saturation, and walking sessions results in better muscle oxygen availability and muscle oxygen extraction capacity in older adults with peripheral arterial disease.CONCLUSIONSThis review supports the fact that depending on the clinical status of the participants and the modality, exercise training improves different aspects of the muscle oxygenation in older adults.

Database: Medline

2. Effects of Cold Water Immersion and Contrast Water Therapy for Recovery From Team Sport: A Systematic Review and Meta-analysis.

Author(s): Higgins, Trevor R; Greene, David A; Baker, Michael K

Source: Journal of strength and conditioning research; May 2017; vol. 31 (no. 5); p. 1443-1460

Publication Date: May 2017

Publication Type(s): Journal Article

Abstract:Higgins, TR, Greene, DA, Baker, MK. Effects of cold water immersion and contrast water therapy for recovery from team sport: a systematic review and meta-analysis. J Strength Cond Res 31(5): 1443-1460, 2017-To enhance recovery from sport, cold water immersion (CWI) and contrast water therapy (CWT) have become common practice within high level team sport. Initially, athletes

relied solely on anecdotal support. As there has been an increase in the volume of research into recovery including a number of general reviews, an opportunity existed to narrow the focus specifically examining the use of hydrotherapy for recovery in team sport. A Boolean logic [AND] keyword search of databases was conducted: SPORTDiscus; AMED; CINAHL; MEDLINE. Data were extracted and the standardized mean differences were calculated with 95% confidence interval (CI). The analysis of pooled data was conducted using a random-effect model, with heterogeneity assessed using I. Twenty-three peer reviewed articles (n = 606) met the criteria. Meta-analyses results indicated CWI was beneficial for recovery at 24 hours (countermovement jump: p = 0.05, CI: -0.004 to 0.578; All-out sprint: p = 0.02, -0.056 to 0.801) following team sport. The CWI was beneficial for recovery at 72 hours (fatigue: p = 0.03, CI: 0.061-1.418) and CWT was beneficial for recovery at 48 hours (fatigue: p = 0.04, CI: 0.013-0.942) following team sport. The CWI was beneficial for neuromuscular recovery 24 hours following team sport, whereas CWT was not beneficial for recovery following team sport. In addition, when evaluating accumulated sprinting, CWI was not beneficial for recovery following team sports. In evaluating subjective measures, both CWI (72 hours) and CWT (24 hours) were beneficial for recovery of perceptions of fatigue, following team sport. However neither CWI nor CWT was beneficial for recovery, of perceptions of muscle soreness, following team sport.

Database: Medline

3. Retrospective Cohort Study of Hydrotherapy in Labor.

Author(s): Vanderlaan, Jennifer

Source: Journal of obstetric, gynecologic, and neonatal nursing : JOGNN; 2017; vol. 46 (no. 3); p. 403-410

Publication Date: 2017

Publication Type(s): Journal Article

Abstract:OBJECTIVE To describe the use of hydrotherapy for pain management in labor. DESIGN This was a retrospective cohort study. SETTING Hospital labor and delivery unit in the Northwestern United States, 2006 through 2013. PARTICIPANTS Women in a nurse-midwifery-managed practice who were eligible to use hydrotherapy during labor. METHODS Descriptive statistics were used to report the proportion of participants who initiated and discontinued hydrotherapy and duration of hydrotherapy use. Logistic regression was used to provide adjusted odds ratios for characteristics associated with hydrotherapy use. RESULTS Of the 327 participants included, 268 (82%) initiated hydrotherapy. Of those, 80 (29.9%) were removed from the water because they met medical exclusion criteria, and 24 (9%) progressed to pharmacologic pain management. The mean duration of tub use was 156.3 minutes (standard deviation = 122.7). Induction of labor was associated with declining the offer of hydrotherapy, and nulliparity was associated with medical removal from hydrotherapy. CONCLUSION In a hospital that promoted hydrotherapy for pain management in labor, most women who were eligible initiated hydrotherapy. Hospital staff can estimate demand for hydrotherapy by being aware that hydrotherapy use is associated with nulliparity.

Database: Medline

4. Balneological outpatient treatment for patients with knee osteoarthritis; an effective non-drug therapy option in daily routine?

Author(s): Özkuk, Kağan; Gürdal, Hatice; Karagülle, Mine; Barut, Yasemin; Eröksüz, Rıza; Karagülle, Müfit Zeki

Source: International journal of biometeorology; Apr 2017; vol. 61 (no. 4); p. 719-728

Publication Date: Apr 2017

Publication Type(s): Journal Article

Abstract: This study aims to compare the effects of balneological treatments applied at consecutive and intermittent sessions without interfering with their daily routine in patients with knee osteoarthritis. This is a randomized, controlled, single-blind clinical trial. Fifty patients diagnosed with knee osteoarthritis were included. The patients were divided into two groups. All patients were given a total of ten sessions of balneological treatment consisting of hydrotherapy and mud pack therapy. Group 1 received consecutive treatment for 2 weeks, while group 2 received intermittent treatment for 5 weeks. Local peloid packs at 45 °C were applied for 20 min, after a tap water (38 °C) bath. Evaluations were conducted before, after treatment, and at 12th week of post-treatment by Pain (VAS), Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), and Short Form-36 (SF-36). Both balneological treatment regimens of knee osteoarthritis had statistically significant clinical effects as well as effects on the quality of life. Patients' well-being continued at 3 months, except for joint stiffness (WOMAC), role-emotional (SF-36), and vitality (SF-36) in group 1 and for mental health (SF-36) in both groups. Both patient groups had improved compared to baseline. However, at 3 months after the treatment, the well-being of group 2 was unable to be maintained in terms of role-physical (SF-36) parameter, while the well-being of group 1 was unable to be maintained in terms of pain, WOMAC (pain, physical functions, total), and SF-36 (physical functioning, role-physical, pain, role-emotional, and mental health) variables, compared to data obtained immediately after treatment. Our study suggests that traditional and intermittent balneological therapies have similar efficacy in patients with knee osteoarthritis.

Database: Medline

5. Aquatic Exercise Therapy for People With Parkinson Disease: A Randomized Controlled Trial.

Author(s): Carroll, Louise M; Volpe, Daniele; Morris, Meg E; Saunders, Jean; Clifford, Amanda M

Source: Archives of physical medicine and rehabilitation; Apr 2017; vol. 98 (no. 4); p. 631-638

Publication Date: Apr 2017

Publication Type(s): Journal Article

Abstract: OBJECTIVE To evaluate the effects of aquatic exercise therapy on gait variability and disability compared with usual care for people with Parkinson disease (PD). DESIGN Single-blind randomized controlled trial. SETTING Community-based hydrotherapy pool. PARTICIPANTS Individuals with PD (Hoehn-Yahr stages I-III) (N=21). INTERVENTIONS Participants were randomly assigned to either an aquatic exercise therapy group (45min, twice a week for 6wk) or a group that received usual care. MAIN OUTCOME MEASURE The primary outcome measure was gait variability as measured using a motion capture system. Secondary outcomes were quality of life measured on the Parkinson's Disease Questionnaire-39 and freezing of gait and motor disability quantified by the Unified Parkinson's Disease Rating Scale. Feasibility was evaluated by measuring safety, adverse events, and participant satisfaction. RESULTS People in the aquatic therapy group and usual care group showed similar small improvements in gait variability. The aquatic therapy group showed greater improvements in disability than the usual care group ($P < .01$). No differences between groups or over time were identified for freezing of gait or quality of life. Aquatic therapy sessions were safe and enjoyable with no adverse events. CONCLUSIONS Aquatic therapy appears feasible and safe for some people in the early stages of PD.

Database: Medline

6. Computer tablet distraction reduces pain and anxiety in pediatric burn patients undergoing hydrotherapy: A randomized trial.

Author(s): Burns-Nader, Sherwood; Joe, Lindsay; Pinion, Kelly

Source: Burns : journal of the International Society for Burn Injuries; Mar 2017

Publication Date: Mar 2017

Publication Type(s): Journal Article

Abstract:BACKGROUND Distraction is often used in conjunction with analgesics to minimize pain in pediatric burn patients during treatment procedures. Computer tablets provide many options for distraction items in one tool and are often used during medical procedures. Few studies have examined the effectiveness of tablet distraction in improving the care of pediatric burn patients. AIM This study examines the effectiveness of tablet distraction provided by a child life specialist to minimize pain and anxiety in pediatric burn patients undergoing hydrotherapy. METHOD Thirty pediatric patients (4-12) undergoing hydrotherapy for the treatment of burns participated in this randomized clinical trial. The tablet distraction group received tablet distraction provided by a child life specialist while those in the control group received standard care. Pain was assessed through self-reports and observation reports. Anxiety was assessed through behavioral observations. Length of procedure was also recorded. RESULTS Nurses reported significantly less pain for the tablet distraction group compared to the control group. There was no significant difference between groups on self-reported pain. The tablet distraction group displayed significantly less anxiety during the procedure compared to the control group. Also, the tablet distraction group returned to baseline after the procedure while those in the control group displayed higher anxiety post-procedure. There was no difference in the length of the procedure between groups. CONCLUSION These findings suggest tablet distraction provided by a child life specialist may be an effective method for improving pain and anxiety in children undergoing hydrotherapy treatment for burns.

Database: Medline

7. Implementation of a Hydrotherapy Protocol to Improve Postpartum Pain Management.

Author(s): Batten, Meghann; Stevenson, Eleanor; Zimmermann, Deb; Isaacs, Christine

Source: Journal of midwifery & women's health; Mar 2017; vol. 62 (no. 2); p. 210-214

Publication Date: Mar 2017

Publication Type(s): Journal Article

Abstract:INTRODUCTION A growing number of women are seeking alternatives to traditional pharmacologic pain management during birth. While there has been an extensive array of nonpharmacologic options developed for labor, there are limited offerings in the postpartum period. The purpose of this quality improvement project was to implement a hydrotherapy protocol in the early postpartum period to improve pain management for women choosing a nonmedicated birth. PROCESS The postpartum hydrotherapy protocol was initiated in a certified nurse-midwife (CNM) practice in an urban academic medical center. All women who met criteria were offered a 30-minute warm water immersion bath at one hour postpartum. Pain scores were assessed prior to the bath, at 15 minutes after onset, and again at the conclusion (30 minutes). Women who completed the bath were also asked to complete a brief survey on their experience with postpartum hydrotherapy. OUTCOMES In women who used the bath (N = 45), there was a significant reduction in pain scores (P < .001) between the onset of the bath and scores at both 15 minutes and 30 minutes. There was no significant difference between pain scores at 15 minutes and 30 minutes (P = .97). Of those women who completed a survey (n = 43), 97.7% reported both that the bath reduced their pain and improved their birth experience. One hundred percent reported they would use it again in

another birth. **DISCUSSION** This project demonstrated successful implementation of a hydrotherapy protocol as an alternative or adjunct to medication for early postpartum pain management that significantly reduced pain and improved the birth experience for those who used it. It offers a nonpharmacologic alternative where there have traditionally been limited options.

Database: Medline



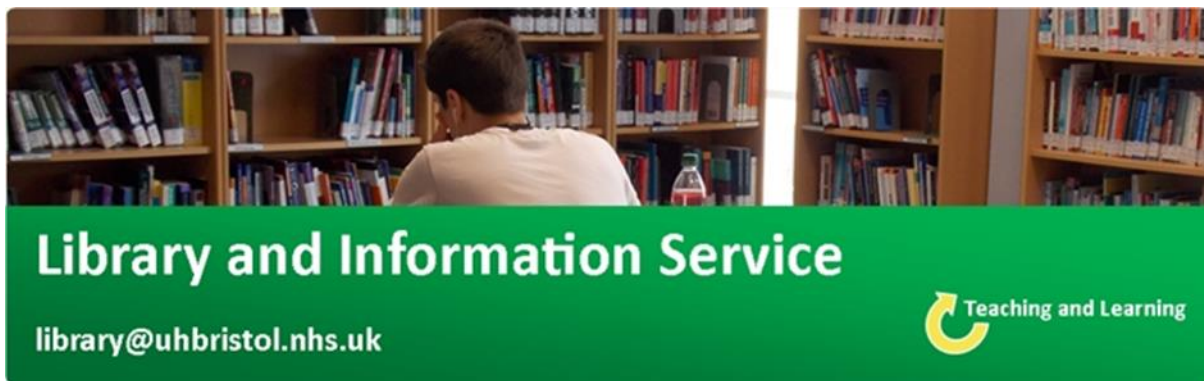
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Helen Pullen

library@uhbristol.nhs.uk