

The pathway to online exercise and education

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Making research based exercise & online learning effective

Many thanks to the SMA for inviting me to chat today on Harnessing technology and exercise intervention to optimise patient outcomes

Professional exercise videos in HD with narration

A big step forward in consistency and details provided to the client with ability to individualise:

- 1) printed out as patient handout
- 2) send as video files to Physitrack patient App
- 3) Potential for a variety of languages.
- 4) New and updates exercises as research provides insight.



OPTIMISING QUALITY - 3rd INGREDIENT – Resources continued – Quality of Video production

Talk about the experience of creating 250 exercise narration and then filming of the exercises at the BBC in London with our own designated Producer.

During my last lecture Tour of Europe earlier this year, I spent time with James our Producer, recording content for our Bounce back inline training modules to allow health professionals world wide to be trained in and utilise the extensive Bounce back programs for neck back and hip pain. Our aim in the future is for more body areas and sport specific issues to be addressed with evidence based exercise programs which are reproducible and can be further refined over time.



How did
the
digital
idea
take
shape



Joint Architecture

- Cartilage lining of sacralial joint is not smooth
- Has ridges and depressions which are complementary to each other
- Provide an increased friction surface to
- This avoids "locking" and weight transfer



+» Physitrack®
Exercise intelligence.

**Meeting of
people and
combining
professional
skills**



The European Lecture Tour

Velkommen til
Danske Fysioterapeuters
Fagkongres 2015



Continuing education in Britain



**Bounce
back
filming:
London**



Online training: Bounce back Theory, research and structure.

General Instructor Training

Click on the tabs along the top of the videos and see the content of each Section in the Playlist panel to the right of the video.

The screenshot shows a video player interface. At the top, there are four navigation tabs: 'Home', 'BB Instructors Intro Videos' (which is highlighted), 'Concepts Anatomy', and 'Other Relevant Content'. The main video area shows a woman standing in a virtual studio. To her left is a large screen displaying the 'BOUNCE back' logo and the text 'BOUNCE BACK FOR REHABILITATION & PAIN PREVENTION'. Below this, there is a list of four items, each with a colored circular icon and a text box. The website 'www.bounceback.phd.net' is visible at the bottom of the screen. To the right of the video player is a playlist panel with three items: 'Session 1 The Role of Proprioception in Muscle Control', 'Session 2 Muscle Imbalances of the Lumbo-Pelvic-Hip Region', and 'Session 4 - Bounce back Research'. Each item in the playlist has a small thumbnail image.

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[01xxx]



[02xxx]



[03xxx]

Instructor training
Part A



Correct
Breathing



Neutral Spine



Posture



[09xxx]



[08xxx]



Glut Max vs
Hamstring



Glut Med

The functional actions of Psoas

BOUNCE b.a.c.k. Instructor Training

Psoas major

Psoas minor

Origin: - Thoracic Vertebrae (T-12)
- Lumbar Vertebrae (L1-5)
- Intervertebral Discs

Insertion: Femur
Lesser trochanter

Ilio psoas

Actions of: Psoas major

- The entire muscle
- Iliacus
- ▶ 2 Psoas major
- 3 Psoas minor

▶ Hip flexion
▶ Flexing the trunk on the femur (fixed thigh)
▶ Increase lordosis
▶ Lateral flexion of the trunk (Unilateral movement)
▶ Assists in hip lateral rotation

Hip flexion (sagittal plane)

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[18xxx]



[19xxx]



[20xxx]

Instructor training
Part H



Reaching /
Pulling Tasks



Gluteus Max. &
Lat. Dorsi

Online education: Presentations, white papers & research

1) White paper: [Dynamic slings and optimal 3D function...](#)

2) Template to use for education evenings: **Dubai World conference for Low back pain on Bounce back and 2 year follow up research.** :

<http://www.bbclasses.com.au/files/60.pdf>

3) Review of ICSI I have summarised the finding in the following article: **Guidelines for Adult Low back Pain** by Trish Wisbey-Roth - [BB Article Review 2012-1](#)

4) Here is the link to the entire 90 page document with **Summary tables of most relevant research in the area of Low back pain** [Link to ICSI - Musculo-Skeletal Disorder Main Page](#)



A) Outcomes of individual Rx.

Effectiveness of program in meeting individual goals.

B) Continuous improvement

Collaboration by sharing to find best program within and across clinics.

C) Clinical trials & effective implementation

Support wider research and independent review.

To optimise Clinically based outcomes

- A) Continue getting individuals better
- B) We need to evaluate and continuously improve on our interventions and “Recipes” – as a network of like minded professionals
- C) Opens up the possibility of efficient & clinically relevant research and involvement with larger Research Institutions

A) Integrate Clinical Outcome Measurement



The screenshot displays the 'Bounce Back Pain & Function Questionnaire' interface. It includes a header with the Bounce Back logo and 'Initial Review Date'. The main content area is divided into several sections, each with a corresponding icon and title in a colored box on the right:

- Details & History including pre-injury work:** Represented by an icon of a person on a phone.
- Details this Episode – Acute, Sub-Acute, Chronic & effect on work:** Represented by an icon of a hand holding a lit match.
- Red Flags & Yellow Flags:** Represented by an icon of a yellow flag on a beach.
- Risk Factors and BB Suitability:** Represented by a yellow 'RISKS AHEAD' sign.
- Psycho-Social PHQ2 - ÖMSQ-12 Spine Functional Index (SFI-10):** Represented by the 'ADMSE REHAB' logo.

OPTIMISE OUTCOMES – INDIVIDUAL TREATMENT / PATIENT

At Bounce back we have been working for several years on producing a user friendly electronic questionnaire but could not find a practical, user friendly and cost effective delivery method

With Physitrack cost effective distribution is now possible making long term follow up of client outcomes a possibility. It is possible to continue electronic follow up for 2 years or more after intervention.

Long term follow up is an important part of quality assurance as well as an exciting avenue for collaboration for Clinical research

Analyse Outcomes of a Program



PROM surveys for detailed insight in patient reported outcomes

The 'Show survey results' dialog box includes the following controls:

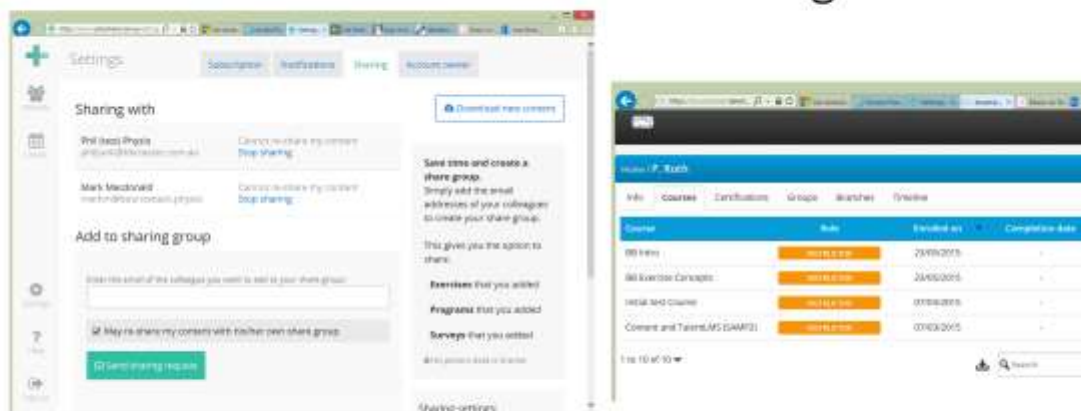
- Date range: 2014, Jan, 1
- 2014, Nov, 0
- Moment: Start & end together
- Sex: Male, Female
- Age groups: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+
- Program: (all)
- Buttons: Download PDF, Download CSV

OPTIMISE OUTCOMES – REVIEW SIMILAR TREATMENT or PATIENT

PROMS: Patient reported Outcomes

Results of a **variety of patients** with similar issues and a **variety of Practices running the similar Bounce back program**, will allow us to analyse and review outcomes to continually evolve and improve functional results from a group feedback system.

Clinical Collaboration & Networking



If we knew what it was we were doing,
it would not be called research?

Albert Einstein

OPTIMISE OUTCOMES – SHAPING THE FUTURE

Sharing information and effective programs both from Bounce back head office, fellow Bounce back agencies and from Health professionals with special interest or extensive knowledge in a sport or area helps to move our clinical knowledge forward.

The next big step is using the combined resources of Bounce back, Physitrack & private practice groups with research Institutions such as the George institute and Key target Industries or stake holders to create high quality clinical research to shape the future in Optimising Outcomes of exercise intervention and injury prevention

Multi centre clinical research Advise only vs Group Exercise



30 min Activity Advice
session with Physio



Questionnaires



Allowed to call Physio
once for advice on
home, work and leisure
activities



Initial 1 Hour Physio
Assessment



Questionnaires



Group Physio
8 x 1 hr



3 x 30min Personal
Home Exercise Program



Final Assessment

OPTIMISE OUTCOMES – SHAPING THE FUTURE OF PREVENTION

Bounce back is currently working with the George Institute investigating the effects of a preventative multipronged exercise and education intervention for Low back pain.

Following a grant from Workcover NSW, its exciting to commence work with key Industry leaders to trial a such an intervention within the workplace aimed at decreasing the current 70% recurrence rate for Low back pain.



THE UNIVERSITY OF
SYDNEY

TOPS Trial Of Prevention Strategies for low back pain

MATTHEW STEVENS

PhD Student, Musculoskeletal

**The George Institute for
Global Health | AUSTRALIA**

Exercise and Education for the Prevention of Low Back Pain
in a Working Population.



Study Information



Background

Back pain is the health condition that carries the greatest burden in Australia¹ accounting for **25% of all major workplace injuries**.² In Australia, the direct and indirect costs are estimated to be over \$9 billion annually.³

Although interventions such as exercise are commonly believed to prevent LBP this is in stark contrast to the evidence as there is very little to support interventions to prevent back pain.

There is insufficient information for health policy makers or industry to judge whether exercise programs to prevent recurrences of LBP represent value for money and are a wise investment. Our trial will provide this important information.

Aim

To establish the effectiveness and cost-effectiveness of group based exercise and education classes compared with a minimal intervention control in preventing recurrence of low back pain.

About Trish Wisbey-Roth

Trish is an Australian Sports Physiotherapy Specialist in the lumbopelvic region and been involved with Australian sporting teams at the National, World Championship and Olympic level.

Trish's ability to combine extensive clinical experience in optimising function and physical outcomes with the latest research, led her to create the BOUNCE Back Active Rehabilitation Systems with over 65 sites running the program in Australia and NZ. (www.bounceback.physio)

Trish lectures extensively in the area of rehabilitation and is currently collaborating with the George Institute and Head Researcher Chris Maher, investigating the effects of exercise intervention on the recurrence rate of low back



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Charlotte Marshall Physiotherapist
Centre for Health, Exercise & Sports Medicine,
Department of Physiotherapy | Melbourne
School of Health Science

**Patient Adherence To Home
Exercise Programs (PANTHER)**

Study Manual

NHMRC Clinical Trials Centre

The PANTHER Study

Does the addition of (Physitrack) to usual physiotherapy
treatment improve patient adherence levels?

IVRS Randomisation System PIN Number



Centre for Health, Exercise
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EDUCATION



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www.Bounceback.physio

STAY IN TOUCH

Many thanks to the SMA for their support and interest and in particular to the amazing CEO Nello and SMA PR super giant Erin

Now I am happy to sit back and answer some questions or hear your comments