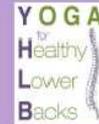




Student ID: 640004276

'It's a pain in the back...' 'Yoga for Healthy Lower Backs' in NHS staff: back pain outcomes evaluation

NHS Primary Care Staff Scheme 2017



Introduction

- NICE recommends a group exercise programme (biomechanical, aerobic, mind-body or a combination of approaches) for low back pain.^[1]
- Yoga meets this criteria as it involves strengthening and stretching movements and postural, breathing and relaxation techniques.
- An RCT (University of York, 2011)^[2] with 313 participants found the Yoga for Healthy Lower Backs (YHLB) programme to be an effective treatment for low back pain (lbp), as well as being cost-effective.^[3]
- YHLB was offered to NHS staff in a primary care trust and outcomes evaluated.^[4]

Methods

8 NHS employees attended the 12 week YHLB course in 2017 alongside other attendees (class sizes around 10).

Employees included both clinical and non-clinical staff. The employer subsidised 50% of the cost.

Outcome measure questionnaires were completed pre- and post-course:

- Visual Analogue Pain Scale (VAS)
- Bournemouth Back Pain Questionnaire (BBPQ)
- Roland Morris Disability Questionnaire (RMDQ)
- Attendance
- Recommend to friends and family

Student feedback forms measured other outcomes such as positive benefits on back and general health.

References:

- [1] National Institute for Health and Care Excellence (2016) Low back pain and sciatica in over 16s: assessment and management, NICE guideline NG59. [2] Tilirook A et al. Yoga for Chronic Low Back Pain: A Randomized Trial. *Ann Intern Med*. 2011;155:569-578. [3] Chuang LH et al. A Pragmatic Multisite Randomized Controlled Trial of Yoga for Chronic Low Back Pain. *Economic Evaluation*. *Spine*. 2012;37(18):1593-1601. [4] Trawлга A. NHS Staff Scheme Evaluation. 2017.

Results

Preliminary data (7/8 attendees completed outcome measures).

Average attendance 9/12 classes

VAS pain score:

- 36% reduction

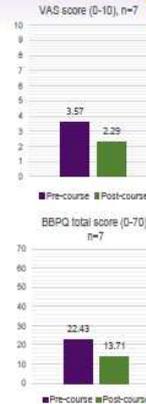
RMDQ:

- Effect of back pain on daily function
- 3.3 point improvement (74%)
- University of York trial: 2.17 point significant difference between yoga and usual care at 3 months.^[2]

BBPQ:

- Biopsychosocial measure of lbp
- 39% reduction
- 63% decrease in lbp affecting work

YHLB's Positive Benefits on Back Health = Average 8 on 0-10 scale.
F&F test = 100% would recommend

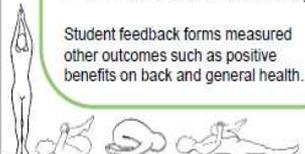


Discussion

- YHLB improves back pain and function and has biopsychosocial benefits according to preliminary data.
- RMDQ demonstrates fewer limited daily activities post-course. RMDQ improvement supports and surpasses findings of the University of York trial.^[2]
- YHLB is sustainable and encourages long-term self-management. Improvements have been shown to last 9 months after classes finish.^[2]
- Yoga manual, relaxations CD and practice sheets encourage home practice and offers continuity of care and group support.
- YHLB reduces work absenteeism by 70%.^[3]

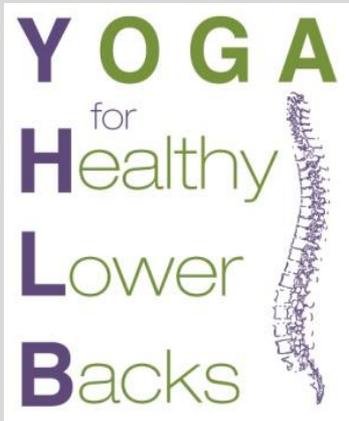
The future...

The staff scheme is ongoing. As more data is collected the sample size will grow. Raising the profile of yoga for low back pain in the NHS setting is a step towards its integration into health and social care.



YOGA for Healthy Lower Backs

www.yogaforbacks.co.uk



Presentation by Alison Trehela, Truro, Cornwall

Social Enterprise - YHLB Institute - YHLBINstitute@gmail.com

Specialist Visiting Tutor (Yoga & Research) – University of Exeter Medical School.

Yoga Researcher, Training Tutor, Programme Designer - Yoga for Healthy Lower Backs

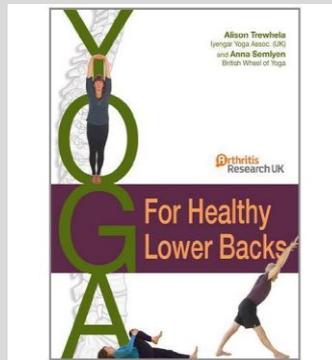
Winner of ICNM's 2013 'Most Outstanding Contribution to Complementary Medicine'

YOGA for Healthy Lower Backs (YHLB)

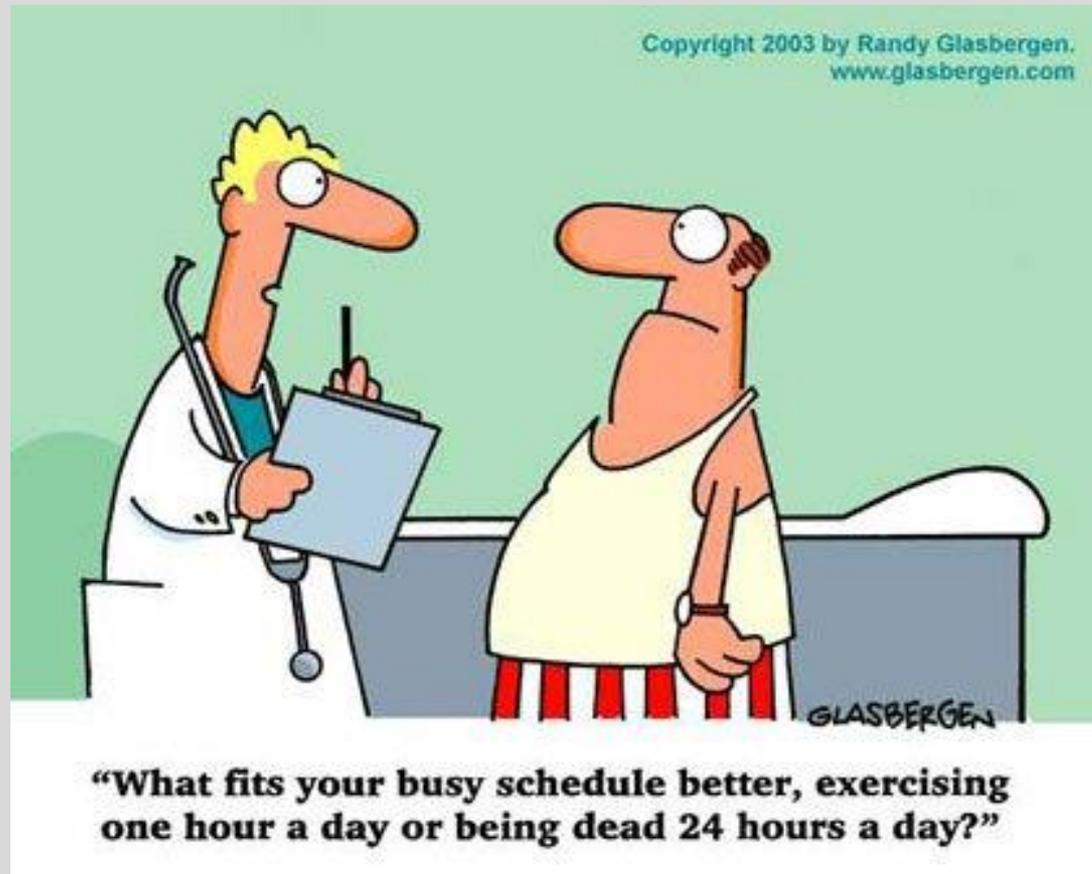
**Specialised 12-week Course - Evidence-based
Arthritis Research UK / University of York Research**

- *Gentle *Effective *Enjoyable**
- *Quality *Small Group Classes**
- *Unique *Specific *Individualised**
- *Beginner-friendly *Cost-effective**
- *Teaches and Motivates**

**Health & Wellbeing Promotional Self-
management**



Self-management



30 minutes of yoga twice weekly can make a difference to comfort, health and well-being.

YHLB Published Research

(University of York / Arthritis Research UK)

1. ‘Yoga for Chronic Low Back Pain: A Randomized Trial’ H. Tilbrook, et al, 1 Nov 2011:

‘Annals of Internal Medicine’ (American College of Physicians) 313 participants.

“In summary, we found that offering a 12-week yoga program to adults with chronic or recurrent low back pain led to greater improvements in back function than usual care for up to 12 months.”

2. '*Spine*' Journal - (L-H Chuang et al, 16 August 2012) Economic Evaluation

Cost-Effective for the NHS - YHLB at £292 pp = cheaper than NHS physiotherapy packages / hospital rehab. programmes

Societal / Economic perspective - 'Dominant treatment'

Workplace Benefits – 70% reduction in work absenteeism (annual savings of £800)

Large Nationwide Project

YHLB represents:

'Generalizable' evidence-based yoga intervention designed by Alison Trehwela (20 teachers from multiple yoga schools; 2 cohorts; 5 centres)

11+ years of 'best practice design', research, post-research development;

500++ people have put in effort, work, passion (researchers, charities, publisher, CD developers, national bodies, and yoga teachers)

£438,500++ investment (£285,000 = charity funding, plus estimated £180,000+) University of York pilot trial (H Cox et al 2011) paper editing, educational resource accessibility, teachers travelling and paying for training courses, teachers attending CPD courses, presentations +++

Social Enterprise and nationally-accredited Yoga Training School

Currently (2017):

6000+ people benefitted from YHLB programme since 2007

350+ Experienced UK Yoga teachers trained

Performing well and available throughout UK

Support from NHS Academic Health Science Networks, Public Health England +

Aims of YHLB Cornwall & National Steering Groups:

- Make YHLB more accessible (social franchise model) via collaborative working, whilst evaluating outcomes**
- Educate healthcare professionals and general public about ‘Yoga for Healthy Lower Backs’. (EBM)**
- Remove obstacles to implementation**

NICE Guidelines Recommendations (Nov 2016)

NICE Guidelines 'Managing Low Back Pain, with or without Sciatica', where Yoga for Healthy Lower Backs can be offered.....

- Self-Management Advice **at all stages in care pathway**
(Recommendations, such as “ Keep active. Do exercise. Relax. De-Stress.” or even “Try Yoga.”= not helpful enough, signpost to YHLB.)
- Exercise (preferably in groups), stretching, strengthening, aerobics, mind-body ('yoga' mentioned in Press Statement) as a first step to managing low back pain.
- Combined physical / psychological treatments (esp. Yellow Flags)

YHLB offers an evidence-based, readily-available, safe and effective, mind-body long-term care package.....patient choice in the community alongside GP care in redesigned pathways.

BMJ 2017
Arrows show where
YHLB fits into
Back pain
Care Pathway

Visual summary

Managing low back pain and sciatica

A brief overview the new NICE guidelines, from the perspective of a patient presenting in primary care.



Consider alternatives

Exclude specific causes of low back pain, for example:

- Cancer
- Infection
- Trauma
- Inflammatory disease
- Cauda equina

Referral

X Imaging

Only consider imaging:
 In specialist care and
 If likely to alter management

Assess likely recovery outcomes

The complexity and intensity of treatment may vary depending on how likely it is that the patient will have a good functional outcome

Consider using risk stratification – such as the **STarT Back** risk assessment tool

Possible indicators of poor outcomes:
 Fear / pain avoidance, Low mood, Job dissatisfaction, Ongoing litigation

Good ← Likely outcomes → Poor

Provide self management information

Information on nature of pain, Encouragement to continue activities

Self management is important for all patients, even those with acute symptoms and/or sciatica

Managing acute sciatica

- Neuropathic pain medication
- Epidural injections: Steroid + Local anaesthetic
- Spinal decompression

After acute symptoms of sciatica are controlled, it may be appropriate to instigate an exercise programme to manage underlying low back pain

To manage a specific episode

- Group exercise + Manual therapy + Psychological therapy
- Combined physical + psychological programme

Pain is persistent / treatment resistant

Consider pain relief options

- Paracetamol: Not effective alone (X)
- NSAIDs*: Consider oral NSAIDs (✓)
- Weak opioids: If NSAID ineffective / not tolerated / contraindicated (✓)

X Do not offer acupuncture *NSAIDs = non-steroidal anti-inflammatory drugs

Long-Term Mind-Body Approach for a Biopsychosocial Prevalent Problem

After 12-months, **60% still practising recommended 30 minutes twice weekly at home.**

Home Practice, both on the mat and in daily life (aided by 12 classes, Book, CD, Home Practice Sheets, Hand-Outs), gives **life-long self-care holistic toolkit.**

“I enjoy my yoga.” “It works!” “Still positively affecting my life, 4 years after doing the course.”

Course Attendees Enjoy Benefitting from YHLB

“Nothing difficult – just learning to stand, sit, lie more correctly. Can’t do any harm -you work at your own pace, sometimes just imagining poses.”

“Yoga is better than painkillers - no pain in arthritic hip, back and neck.”

“I can’t believe something this subtle and gentle can give such huge effects.”

“It feels I now have my pain under control – it no longer controls me! My outlook feels much more positive after many years of worry.”

“After 20 years of pain I’ve turned a corner.”

“If I get a twinge, I now don’t panic – I just settle it with a pain-relieving pose and relaxation CD.”

“Didn’t know I could help myself like this – thought I had to rely on others to fix me, but that didn’t work... and this does.”

“Despite investigations showing nothing, I thought something was seriously wrong. I would often end up in A&E with back spasms. This yoga is gold-dust, especially the use of the exhalation to relax muscles before they get a grip.”

“I wasn’t keen on my previous treatment, as it hurt (in fact I often didn’t go!). This is far gentler. I love being in control.”

“Post-back-surgery, this has been a god-send. I look forward to a lifetime of yoga practice and my consultant supports this.”

Cornwall 2015 YHLB Outcomes Study

58% Improvement of Function in Daily Life (RMDQ back pain disability -3) = Clinically significant. Greater improvements for those with 7+ = -6.1

57% Pain Perception reduction

52% Biopsychosocial Restrictions improvement

67% Self-Efficacy / Daily Function improvement

62% Social Function improvement (recreational, social, family)

26% Anxious reduction (uptight, tense, irritable, difficulty relaxing/concentrating)

35% Depression reduction (down-in-the dumps, sad, in low spirits, pessimistic, lethargic)

44% Work (employed and home) affecting their back pain improvement

Cornwall 2015 YHLB Outcomes Study – cont.

63% improvement in self-management, ‘resilience’ & feeling empowered to ‘Control and cope personally with back pain’

Health Professionals / GPs Growing Confidence in Referrals to YHLB –

39% NHS ‘Signposting’ became

60% NHS ‘Signposting’ - last 6 months of study/audit

Patient / Student Commitment

83% mean attendance (10/12 classes)

'Yoga for Healthy Lower Backs' specialist back-care course outcomes in Cornwall

Student ID: 630006904

Introduction

- A 313-participant RCT published in the *'Annals of Internal Medicine'* in 2011 has found yoga to be an effective treatment for patients with non-specific low back pain.^[1]
- NICE guidelines recommend a group exercise programme (biomechanical, aerobic, mind-body or a combination of approaches) within the NHS as a first step to managing low back pain.^[2] Yoga for healthy lower backs (YHLB) courses would fit the mind-body category as is mentioned in the long guidelines.
- Further information, including details of research, courses and the YHLB institute can be found at www.yogaforbacks.co.uk

Methods

49 patients have been taught on one-off 12 week YHLB courses in Cornwall between November 2011 and July 2015.

Results have been obtained from the 23 participants who completed all pre and post course questionnaires.

The outcome measure questionnaires used were:

- Roland Morris Disability Questionnaire (RMDQ)
- Visual analogue score (VAS) for pain
- Bournemouth back pain score (BBPS)



Results

Mean class attendance rate = 10/12
Average score difference post YHLB course....
RMDQ:

- **58% improvement** in daily function
- **3 point** score improvement
- **6.1 point** score improvement for participants with a pre-course score of 7 or more

VAS for pain:

- **57% reduction** in pain perception

BBPS:

- **52% reduction** in restriction of physical, mental and social function
- **63% improvement in coping / managing back pain by themselves.**



Discussion

- YHLB teachers are taught to recognise red flags and know how/when to refer back to the GP or hospital.
- The course provides a biopsychosocial approach to back pain – physical poses, relaxation techniques and group support result in fewer days off work due to back pain.
- Yoga treats patients holistically, and addresses pre-existing co-morbidities.
- YHLB is patient-centred & community based.
- YHLB students feel that they have learnt skills and tools to self-manage and prevent their back pain.
- The YHLB book and CD aid participants with practicing techniques at home.
- *Spine journal* has shown YHLB to be cost-effective in an NHS setting.^[3]



Future

Development of implementation models for integrating YHLB courses into NHS back pain care pathways, alongside GP care

NHS Cornwall YHLB Implementation Pilots

Pilot 1 Penryn GP Surgery (September 2016)

- Patient contribution **£59**
- 12 patients

Pilot 2 Penryn GP Surgery (November 2016)

- Patient contribution **£100**
- 10 patients

Pilot 3 Perranporth/ St Agnes GP Surgeries (April 2017)

- £100 (minus £20 refund from GPs on completion = **£80**)
- 11 patients

More NHS Supported Ongoing Pilots

Pilot 4 Probus GP Surgery (September 2017)

- Patients pay **£125**
- GP Surgery contributes approx. £100 per patient (or £1000 per course)

Pilot 5 St. Austell Healthcare Hub (Winter 2017/18)

- Patients pay **£100 (subsidised by YHLB)**
- Referrals from 'social prescribing' and GPs

Pilot 6 CFT Primary Care Staff Scheme (from June 2017)

- Various locations
- Course attendees pay **£112**; employer pays £120

Pilot 1, 2 & 3 Combined Outcomes

(Part of NHS England Health Education SW Deanery
Leadship Bursary QIP Project – Dr. A. Huetten)

Overall attendance:

69% - 76%

Family & friends Recommendation?

87% 'Extremely likely'

13% 'Highly/Quite Likely'

**As a patient, do you think this course should
be offered under the NHS?**

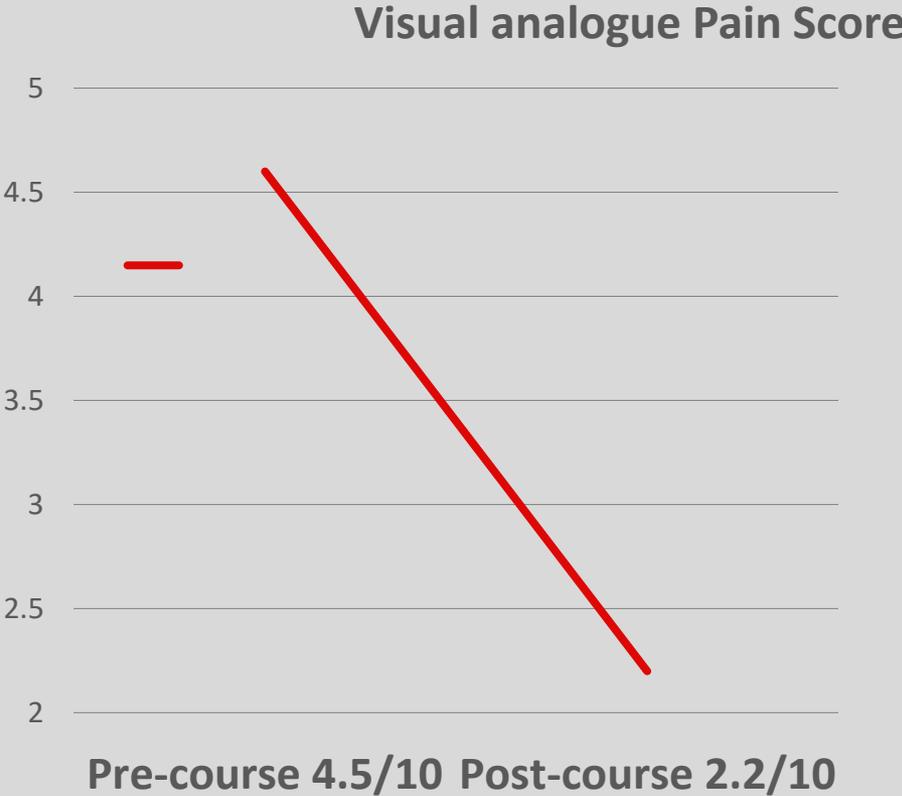
100% Yes

Changes in Medication

Patients reported:-

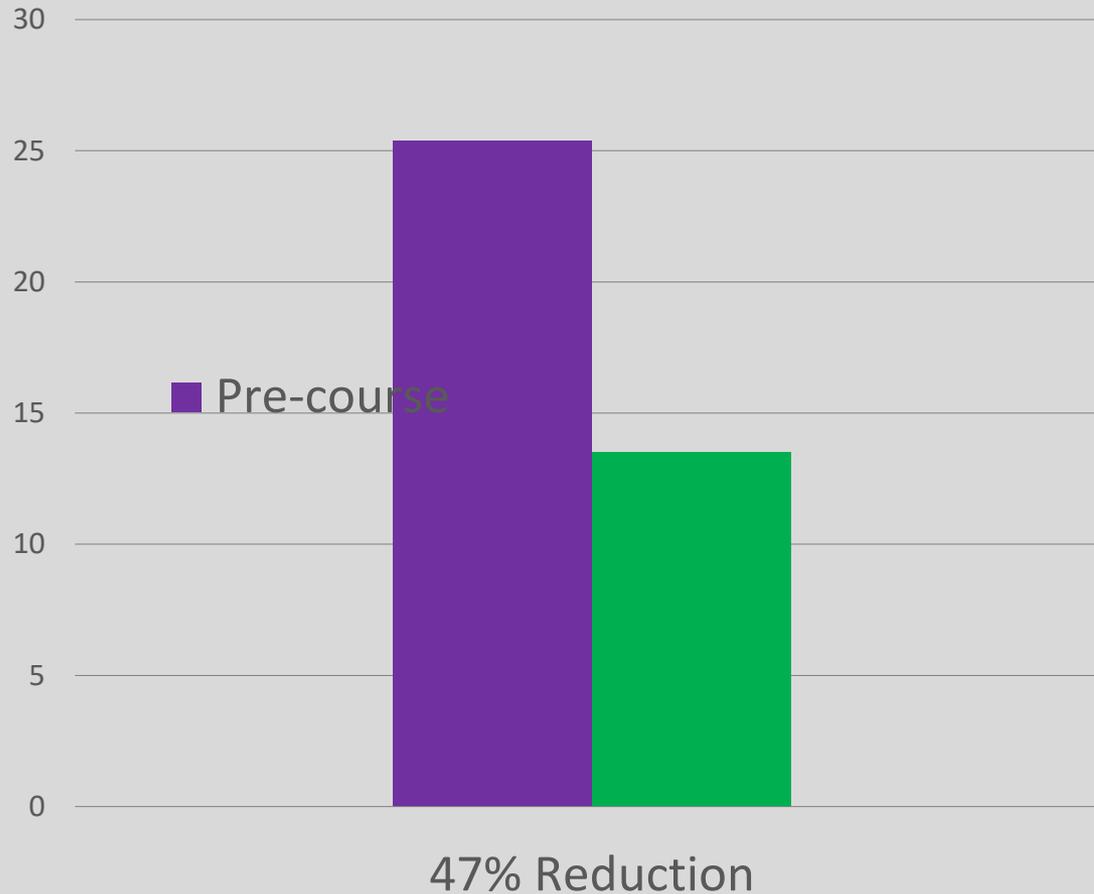
- Stopping taking Amitriptyline (with GP help)**
- Reducing daily Dihydrocodeine by 50-75%**
- Stopping daily Co-dydramol & Naproxen**

Visual Analogue Scale – Pain Score



Bournemouth BP Questionnaire Severity, Impact & Control

Bournemouth Questionnaire

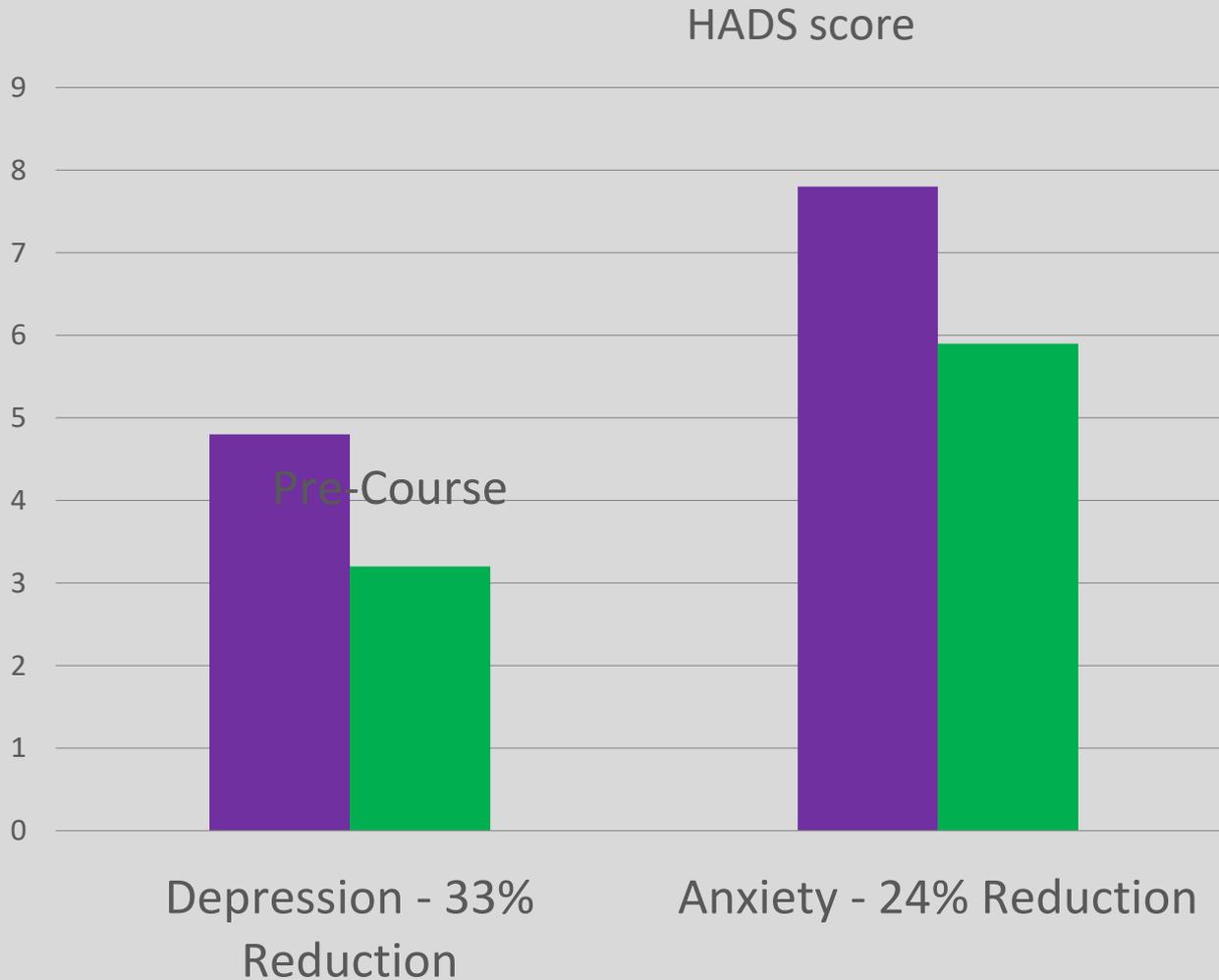


Roland Morris Disability Questionnaire

Roland Morris Questionnaire



HADS Questionnaire



Quotes from Penryn Patients

‘It’s great to see the NHS, and the Penryn practice in particular, taking a proactive approach to back issues.’

‘A life-changing experience, after years of frustration.’

‘The course got me back to work after 6½ months - my recovery had plateaued and I was feeling desperate. The course helped my mobility, physical ability and stamina. It also made me more positive.’

‘I’m firmly convinced that empowering people to tackle things themselves is the best way forward.’

GP CPD Event Feedback

RCGP (Tamar) CPD evening at Duchy Hospital -Nov 2016 – Powerpoints (Alison Trehwela and Dr. Anna Huetten) available to view on RCGP website

100% of GPs would...

- Consider referring patients to YHLB
- Support its inclusion as a fully-funded NHS service

The majority felt that **asking patients to contribute to costs would motivate commitment.**

What is Yoga for Healthy Lower Backs?

Pain-relieving poses ('Menu' sheet)

Relaxation skills (4-track audio CD)

Self-management advice (hand-outs + support)

Breathing techniques

Spinal education (positive language)

Postural awareness

Stretching

Strengthening

12 classes taught with individualisation and

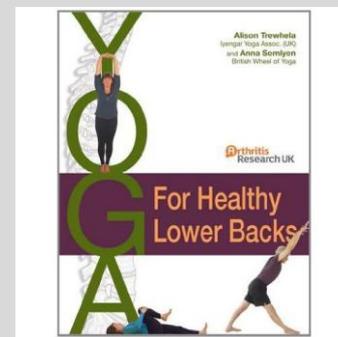
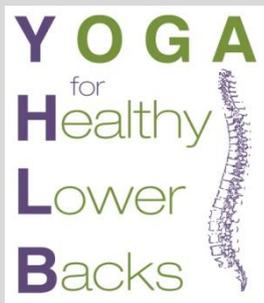
appropriate progression (Teachers' Manual)

5 sequences CORE & PROGRESSIVE (Hand-

Outs)

Philosophical yoga class themes

Published Students' Manual (book) for life-long practice



'YOGA for Healthy Lower Backs' 12-Week Course

University of York / Arthritis Research UK

Evidence-Based, Gentle Yoga Programme

Specialised classes give you a tool-kit to improve comfort, health & wellbeing for now and the future.

Beginner-friendly – Effective - Enjoyable



More Information at

www.yogaforbacks.co.uk

Pre-Register for a YHLB Institute course via

info.YHLB@gmail.com

Funding - Social prescribing / Council / Public Health / NHS / Charity?

YHLB Cost = valued at £292 (2008)

Private sector = £224 -> £300 (some with central admin via regional YHLB Hubs and Teaching Teams)

Comparative Values 2017.....

AQP physio referral could cost £124
(average 2 hrs over 4 wks)

Versus potential social franchise model

YHLB = patient pay £125 + 'Funders' pay £125
(guaranteed 15 hrs over average of 15 wks)

Public Health and YHLB

PHE Musculoskeletal Return on Investment
online tool and report

(PHE MSK ROI tool Oct.2016)

**lists YHLB as one of 7 innovative
evidence-based options that could be
commissioned.**

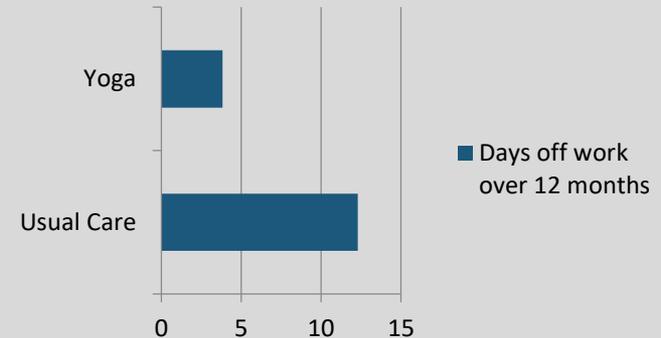
**YHLB shows a £10 return for a £1
investment.**

YHLB in the Workplace

Lifelong Self-Care Tool-kit for Health and Well-being

- **Enjoyable evidence-based activity**
- **Gentle approach; beginner-friendly**
- **Physical / mental fitness levels improved gradually, and appropriately**
- **Sustainable improvements**
- **Postural / mental techniques for workplace**
- **'Best Practice' holistic course devised by experts**
- **Good return on investment**

Please ask for our
Workplace Trifold leaflet.



70% Reduction in Work Absenteeism

Those in the yoga group had an average of only 3.83 days off work compared to 12.29 in the usual care group over the 12 months studied – (equates to employer savings of £800 pp)

Workplace - Employee Health is Important

- More days lost to MSK pain than any other cause (30.6m)
- Mental health problems (stress, depression and anxiety) - 15.2m days of work lost
- 75% of acute back pain will recur within 12 months.
- Each day around 1% of the UK's working population will be off sick due to back pain.
- 1 in 3 answered 'Yes' to 'Have you felt back pain within the last month?'

Offer 'Yoga for Healthy Lower Backs' Course as Long-Term Solution

- ✓ Support valued employees by helping them improve health with cost-effective education
- ✓ Give staff tools to keep working creatively, energetically, productively and happily
- ✓ Promote long-term healthy lifestyle choices
- ✓ Encourage team-working
- ✓ Reduce impact of back pain and stress-related conditions on workforce and business

"I used to have 2-3 periods of time off work each winter due to my back pain and associated depression – this year = none!"



"This course has taught me to lessen the frequency, duration and intensity of back pain episodes. Hurrah."

Health Professional Recommendations

NHS Back Pain Specialist Physio. (attended course):-

*“The unique course is genuinely **excellent** in terms of content, style of teaching, effectiveness, progression, pace, course literature.*

Overall, I would highly recommend the course.”

Cornish GP after attending course, 3 years post micro-discectomy:-

“My back is 99% of the way there!

Yes, it is definitely worth pursuing NHS funding for the Yoga for Healthy Lower Backs programme!”

Hospital Orthopaedic Consultant:- *“This is just the kind of guided self-care course that the NHS should be offering patients.”*

More Recommendations

Several Cornish GPs - *“How can we refer to this specific yoga course?”*”

LMC Chair - *“This definitely WILL be offered in the NHS in the future.”*

Pain Clinic Lead – *“I support this.”*

National Leaders support YHLB –
Dr. Benjamin Ellis, Dr. Mike Dixon, Simon Stevens, Under-Secretary for Health, Public Health England, AgeUK, Commissioners, AHSNs, MPs

Conclusion

-YHLB Research & Pilots show impressive outcomes
= pain reduction... improved function... improved
mental health... reduction in work absenteeism...
cost-savings... benefit from background efforts

-Obstacles = funding... lack of familiarity amongst
GPs (esp. how gentle it is).. education of patients.

-NICE (2016) recommends this kind of well-structured
group exercise 'as a first step to managing low back
pain'. + Public Health shows YHLB could offer a 10:1
return on investment.

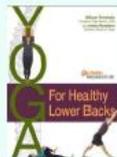
- YHLB = available in UK... offer patient choice...
inclusivity (part-funding)...

**NICE mentions it, Public Health encourages it,
patients love it, GPs who know about it support it,
commissioners welcome it. Let's make YHLB happen!**

www.yogaforbacks.co.uk

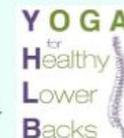


It is time to de-medicalise back pain & facilitate self-management with the help of innovative long-term treatment options such as ‘Yoga for Healthy Lower Backs’.



The implementation of the evidence-based 'Yoga for Healthy Lower Backs' - course as a treatment option for patients with back pain

Anna Huetten GP ST3 Leadership scholar South West Deanery (NHS Health Education England),
YHLB Registered Teacher
Quality Improvement Project - Cornwall Pilots August 2017



Introduction

Back pain is a common and often chronic condition that is costly both for the NHS and our society as a whole. The Yoga for Healthy Lower Backs programme (YHLB) is a gentle evidence-based [1] and cost-effective [2] 12-week program that enables patients to self-manage their chronic back pain in the long-term.

Aims

- Make YHLB available to NHS patients of Penryn +/- other Cornish surgeries and evaluate outcomes
- Educate health care professionals about YHLB
- Evaluate obstacles to implementation

Methods

Support for pilots gathered by presenting at clinical meetings at Penryn, Perranporth and Hayle surgery.

Referral through GPs, physiotherapists and self-referral using waiting room posters / fliers.

Funded through patient contribution £56-100, SW Deanery scholarship, subsidized by A. Trehwela & Perranporth surgery.

Pilot 1 (n=9/12) & Pilot 2 (n=10) courses were taught to Penryn patients.
Pilot 3 (n=12) was delivered to patients of Perranporth and St Agnes surgeries.

Pre-and post-course questionnaires were used to measure outcomes.

Further GP education through presentations at RCGP CPD evening at the Duchy hospital & SWAHNS 'Sharing best practice' conference, PPTs to GP ST3s / ST2s & Kerrier CMHT.

Foundation of 'YHLB Steering group' and liaison with Kernow CCG, Kernow Health, RCHT Pain Clinic, local MP.

Draft created for new local back pain pathway incorporating new NICE guidelines.

Main obstacle - Funding

Course evaluated at £292 in 2008 [2], currently offered for £224 in the private sector incl. course book, CD & handouts.

Exclusion of socially deprived patients even with reduced patient contribution towards total course cost.

Possible funding from Cornwall Community Foundation through Age UK.

Currently preparing application to another UK charity.

Acknowledgments

I would like to thank A. Trehwela, E. Campbell, J. Katz, J. Huddy, E. Berry, J. Munro, R. Beckley, L. Fogg, Perranporth Surgery, Penryn surgery, St Agnes surgery, Hayle surgery, the Cornish TPOs, the YHLB steering group and the South West Deanery for all their efforts, kind support and encouragement.

References [1] Yoga for Chronic Low Back Pain: A Randomized Trial' Annals of Internal Medicine 2011 H. E. Tilbrook, H. Cox, C. Hewitt et al. [2] 'A Pragmatic Multi-centred Randomized Controlled Trial of Yoga for Chronic Low Back Pain: Economic Evaluation' Spine Journal 15th August 2012 Chuang LH, Soares MO, Tilbrook H et al.

Results

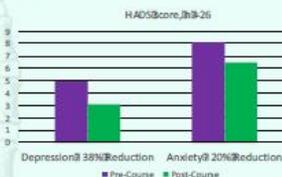
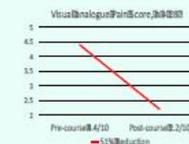
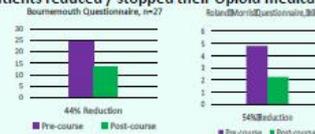
Feedback from RCGP CPD evening – 100% of 21/22 GPs would consider suggesting or referring patients to YHLB & would support its inclusion as a fully funded NHS service.

Patient quotes

'The course got me back to work after 6 ½ month, my recovery had plateaued and I was feeling desperate.'
'I'm firmly convinced that empowering people to tackle things themselves is the best way forward.' *'It's great to see the NHS taking a proactive approach to back issues.'*

Outcomes (28 pre- & post-course patient questionnaires)

Reduction in analgesia and antidepressants was noted - 5 patients reduced / stopped their Opioid medication



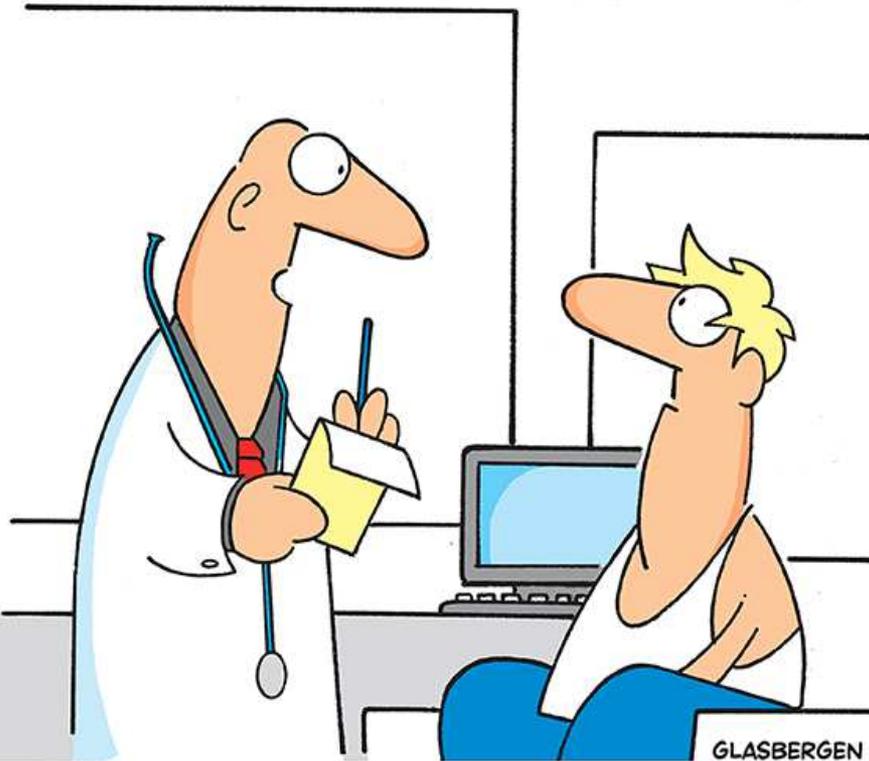
Conclusion

These YHLB Pilots show impressive outcomes with regards to back pain & function as well as mental health.

Funding remains the main obstacle to implementation alongside lack of familiarity amongst GPs.

NICE wants it, patients want it, GPs who know it want it: It is time to de-medicalise back pain & facilitate self-management with the help of innovative treatment options such as 'Yoga for Healthy Lower Backs'.

© Randy Glasbergen / glasbergen.com



“I’m prescribing exercise. Think of it as a stress pill that takes 30 minutes to swallow.”

What can you Do?.....

YHLB near you?....

Q&As...

Thank you!

YHLBInstitute@gmail.com

www.yogaforbacks.co.uk