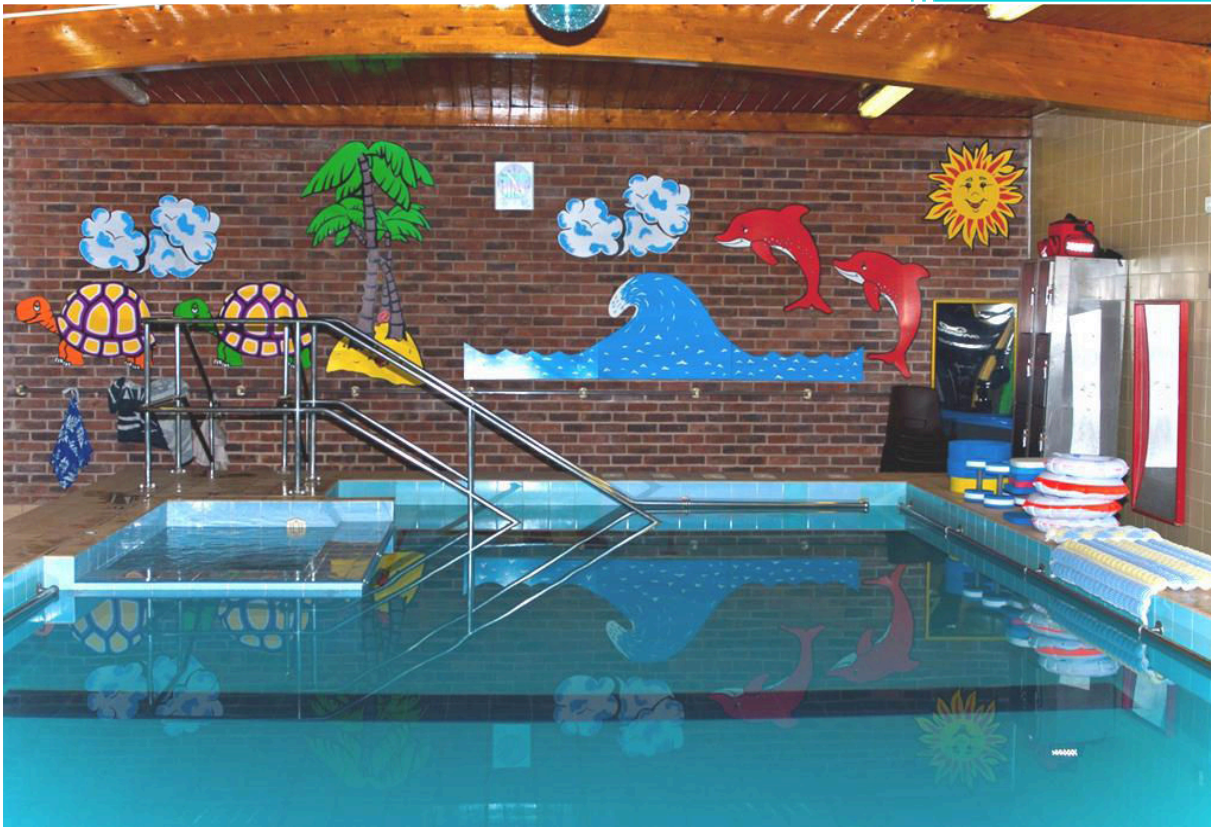
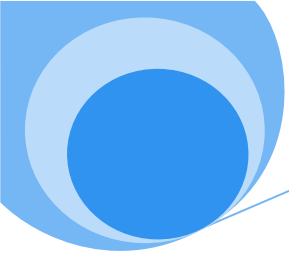


2013

St George's Hydrotherapy Pool User Evaluation



SAM RING
THE JOHN LEWIS
GOLDEN JUBILEE TRUST



CONTENTS

page

Introduction	3
a. Overview by Mike Maynard Grad Dip phys MCSP MSOM HT	
b. Golden Jubilee background	
What is hydrotherapy?	6
St. George's hydrotherapy pool	7
Aim of the study	9
a. Why use self reported experience as a measure of outcomes	
b. What was the methodology used	
c. index of data collected	
Family Voice telephone survey results	11
St. George's evaluation survey	13
a. Hydrotherapy existing user evaluation summary	
b. Level of improvement graphs	
c. summary conclusion	
d. conditions listed from evaluation form	
Self referring users	24
a. EQ-5D-L results	
b. EQ VAS results	
c. MYMOP	
Case studies, stories and feedback	29
LINK pathfinder Healthwatch Peterborough	32
a. What is commissioning?	
Commissioning	34
a. EQ-ED-L and VAS results	
b. MYMOP results	
Peterborough City Council Health & Wellbeing Strategy 2012-15	37
Working together	42
Users by PCC ward (area)	43
Final summary	44
Appendix (including updated data)	46
Acknowledgements	64

Introduction

In 2008 I had an accident; I suffered lower back and hip problems and had to undergo a hip operation the same year. At my GP surgery I came across a leaflet about St George's hydrotherapy pool. Having tried a few sessions of land-based physiotherapy, I was keen to try anything extra to get myself mobile and self sufficient. The effect of using the pool was so great; I became a regular user, and over the months found hydrotherapy to be of immense benefit.



In 2012 I approached my employers –John Lewis – to request their support to start a project to research the hydrotherapy pool during a trial period of commissioning.

The physiotherapist at St George's and I discussed various methods of data collecting, and decided on MYMOP and EQ-5D-L. These are recognised by health professionals who are able to analyse and

evaluate the data. MYMOP and EQ-5D-L are tried and tested questionnaires that give a holistic picture of the patient. Numerous studies show their specificity and reliability.

Unfortunately, due to various reasons, commissioning was delayed until September. The delay meant adapting the work plan for collecting data. I decided to use the current users and new users and gathered the feedback from these groups, until the commissioning started.

This paper aims to provide a comprehensive data and patient/carer evaluation of aquatic therapies (hydrotherapy). Based on research carried out at St George's Community Hydrotherapy Pool where results demonstrated it as a method to improve the lives, health and wellbeing of users and carers.

**Sam Ring
March 2013**

Mr Mike Maynard, Grad Dip Phys MCSP MSOM HT¹ describes hydrotherapy:



Roman Spa



St George's community pool

"Aquatic physiotherapy, despite perhaps being the most ancient therapy, is also a contemporary therapy for the modern world. A five year plan published by the Government encompassing the period 2010-2015 emphasises the need for a more preventative, people-centred and productive National Health Service (Department of Health 2009). Modern aquatic physiotherapy involves people who otherwise are likely to be inactive or not regularly involved in exercise (Jackson et al 2004), is suitable for all (Epps 2009), focuses on the individual (HyDAT team (2009) and can be exceptionally cost effective (Maynard 2003). Thus aquatic physiotherapy can be argued to be extremely relevant to the future delivery of an efficient and effective health care service modern aquatic physiotherapy can be defined as:

"A physiotherapy programme utilising the properties of water, designed by a suitably qualified physiotherapist. The programme should be specific for an individual to maximise function, which can be physical, physiological, or psychosocial. Treatments should be carried out by appropriately trained personnel, ideally in a purpose built, and heated Aquatic Physiotherapy pool (Aquatic Therapy Association of Chartered Physiotherapists (ATACP) 2009)"

Thus in contemporary health care provision aquatic physiotherapy should form an integral part of a rehabilitation programme and more broadly be considered as a part of the patient pathway. It may be used as the only form of treatment being offered at that time, or may form part an overall treatment plan, designed to be complementary to other aspects of a person's planned treatment programme.

Working in water at a temperature of around 34 degrees C enables smooth movements in an environment that aids relaxation and pain relief. The buoyancy of the water offers weight relief for painful joints or muscles (e.g. at chest depth only 30% of normal weight is being taken through the legs (Harrison 1983))

Balance and control work can also be carried out in an environment that allows challenging work to be carried out in greater safety than on land, while the properties of water allow very effective mobility strengthening and cardiovascular work to be undertaken especially by those recovering from serious injury, after surgery, or long term illnesses

Mike Maynard is also Editor of the Journal of the Aquatic therapy association of Chartered physiotherapists

¹ http://www.welbeing-cpd.co.uk/Lecturer.aspx?L_ID=20



Golden Jubilee Trust

The Golden Jubilee Trust (GJT) was established as a charity in April 2000 as part of the John Lewis Partnership's Golden Jubilee celebrations. Through the charity, any Partner, regardless of age, seniority or length of service, can apply for a full or part-time volunteering secondment with a UK registered charity for up to six months. The GJT provides innumerable benefits, first and foremost to the charities it supports, by providing them with the resources and skills they need to meet their own objectives in serving the needs of the wider community.

In June 2012 Mrs Sam Ring was successful in her application to the GJT trust in securing a six month part-time secondment. She used two days a week for the six months to create questionnaires, compile case studies, and collate information. Sam is a LINK member and has been a service user of the pool having had hip surgery four years ago.

The primary aim of her secondment was to collect evidence and case studies to support continued commissioning from the PCT, and to produce a document with her findings.



Family Voice Peterborough

Family voice Peterborough (FVP) came about through The Aiming High for Disabled Children Programme which was launched in May 2007. Its stated aim was "to improve service provision across the board for disabled children and their families, enhancing equality and opportunity for them" DCFS. FVP is "pan disability" which means "all disabilities". March 2013 FVP successfully registered as a charity and all the trustees work on an entirely voluntary basis and are themselves parents/carers of children and young people.

They also have an open forum group of parents and carers who are informed and involved in the forum on various different levels. Their charity objects are; to relieve the charitable needs of disabled children and children with complex needs and their families and carers in Peterborough in such ways as the trustees shall think fit, in particular by the provision of advice, information, support and advocacy.

FVP as a local charity were best placed to take on a support role and provide a secondment position to facilitate more in depth research in to the benefits of more comprehensive hydrotherapy provision.

FVP facilitated the secondment of Sam Ring as part of the John Lewis Partnership Golden Jubilee Trust by way of access to families with disabled children, office time and volunteer support.

Sam has used the Family Voice database to carry out an initial phone survey to find out if people on the database had any knowledge of hydrotherapy and the pool.

What is Hydrotherapy?

Hydrotherapy is an aquatic physiotherapy treatment conducted in a heated pool where people undertake exercises to help with rehabilitation, to regain or enhance their well-being and improve their levels of fitness. The therapy has been found to be beneficial in the treatment of the following range of conditions²;

- Arthritis.
- Pain in the back, neck, and shoulder; sports injuries.
- Balance and co-ordination problems; dementia; Parkinson's disease.
- Post-operative rehabilitation, especially hip and knee replacements.
- Cerebral Palsy, MS and other neurological disorders.
- Autism, Down's syndrome, learning difficulties.
- Stroke rehabilitation

Hydrotherapy has been shown to offer a viable rehabilitation alternative for the treatment of spinal pain and dysfunction.³

The Technical Bit

Hydrotherapy (aquatic physiotherapy) is a form of physiotherapy carried out in water, providing a warm, relaxed atmosphere for treating chronic and acute conditions, and an effective therapeutic environment for those in need of rehabilitation. Hydrotherapy is conducted in a pool containing heated water. The water in a pool is typically heated to 32-36°C provides the optimum temperature for muscle relaxation. This helps to decrease pain, increase range of movement and increase muscle activity.

The buoyancy of the water enables movement to be either assisted or resisted and allows for more fluid movements. The properties of water are used to decrease the effects of gravity and provide assistance, support and resistance for exercises. The aim is to gain flexibility of joints, strengthen muscles and enhance core stability to restore or improve function. Users don't need to be able to swim or get their head wet in order to benefit from hydrotherapy.

Water also provides an excellent medium in which to increase patient confidence and motivation prior to embarking on dry land exercise. Hydrotherapy benefits many people with neurological conditions – hospital patients, social services clients, people with long-term neurological disorders, musculoskeletal problems, those recovering from operations, sports injuries, and the elderly population. It is often used with children and adults who have physical and learning disabilities.

For a more detailed explanation of the principles and benefits of Aquatic Environment for rehabilitation, please turn to Annexe 1.

² Profundus 2000

³ Konlian ,1999.Aquatic therapy; making a wave in the treatment of low back injuries. Orthopaedic nursing 18(1);11-8

St George's Hydrotherapy Pool

Since it's re-opening in March 2011, St George's hydrotherapy pool has helped over 1000 people providing pain relief, health improvements, and freedom from isolation. It also offers valuable leisure time for those with learning and physical



disabilities. St George's hydrotherapy pool is situated in Dogsthorpe, Peterborough and is available to the whole community of Peterborough and surrounding areas.

St. George's is a fully accessible hydrotherapy pool with a spa facility.

- Pool measurements 7.35m x 4.25m (24 x 14ft) and is 0.80 (2ft 7") to 1.40m (4ft 7") deep.
- Easy to manage steps with a double handrail
- Hoist with both chair and sling attachments with a full set of slings.
- A wide range of flotation aids
- Exercise equipment and exercise sheets.
- Hoisting facilities in the changing areas, trained staff to assist .
- A hydraulic shower trolley
- Baby changing facilities
- Male and female changing rooms with grab rails and seating.
- The showers are level access- easy push button controls & pull down shower seats.
- Each changing area has a disabled toilet.
- Walking frames are available-crutches should not be used poolside.
- Pull cords for alarms
- Hairdryer at lower level
- Waterproof sheet to protect users wheelchair

The pool is staffed by a small team, a Pool Manager and two life guards. There are three aquatic physiotherapists who volunteer their time on a regular basis

People can access the pool in two ways. They can self-refer or their GP can refer into a clinician-led aquatic physiotherapy session. Anyone can use the pool, along with their family members and carers. The pool currently benefits children and adults, and those rehabilitating from a stroke, long-term conditions or from an injury.

The pool is run by Peterborough City Council working in partnership with the SURF group (service users' rehabilitation forum). It is funded by Peterborough City Council, NHS and local grant giving organizations.

The hydrotherapy pool is supported by local and regional organisations such as: DIAL and LINK/Healthwatch -a local consumer champion for patients, service users and the public.

St George's is a community pool; any users can be involved with the St George's Service Users' Rehabilitation Forum (SURF Group) who have an active role in the pool's operations and decision making process.



**Some of the many users
of St George's hydrotherapy pool**

Aim of this study: To demonstrate the effectiveness of long term hydrotherapy for health and wellbeing as measured by self reported experience of service users

Why use self reported experience as a measure of outcomes?

Service users' perceptions of services they receive are an essential aspect of assessing whether the personal outcomes that people want from health and care are being delivered and their needs met. The NHS Institute for Innovation and Improvement support the premise that patients care about their experience of care as much as clinical effectiveness and safety. The government has made it clear that patient experience is a crucial part of quality care provision⁴

*We want an NHS that meets not only our physical needs,
but our emotional ones too.*

Now I Feel Tall, D o H 2007

Whilst measuring physical improvement outcomes is important, it is just as important to be aware of the emotional and psychological improvement outcomes that any therapy may provide - which is more difficult to measure quantitatively. The reported outcomes with respect to a feeling of overall 'well-being' are just as important and can be measured through qualitative methodology.

Commissioners and providers of health and social care are currently facing the challenges of ensuring that they enable and deliver positive patient and service user experience. Talking to people about how hydrotherapy impacts on their quality of life is a valid and important way of measuring the possible benefits of this therapy to a wide range of people and conditions.

What was the methodology used?

A questionnaire (evaluation form) was created to find out what difference the hydrotherapy pool had made to the lives of users. This survey was carried out on a random selection of users, new and existing, across a six month period.

Case studies/ user quotes were collected.

A phone survey using the Family Voice database was carried out to find out a local charities understanding and knowledge of hydrotherapy and specifically St.George's hydrotherapy pool.

⁴ www.institute.nhs.uk/patient_experience/guide/home_page.html

A 'MYMOP' questionnaire was completed by randomly selected self referred new users on their initial visit. On their third visit users completed a MYMOP follow -up questionnaire.

'EQ-5D-L' and 'VAS questionnaire' were completed by randomly selected self referring new users on their initial visit. On their third visit they completed an 'EQ-5D-L' and 'VAS questionnaire' follow- up questionnaire.

From the 28th September 2012, these questionnaires were also used on new GP referred patients on their first session and their follow up session.

Index of the data collected

Self referral user data

Family Voice phone survey	Random selection from FV database	Independent researcher
MYMOP data	1 st session	Independent researcher
EQ-5D-L & VAS	1 st session	Independent researcher
MYMOP follow-up	3 rd session	Independent researcher
EQ-5D-L & VAS	3 rd session	Independent researcher
Evaluation Form	3 rd session	Independent researcher
Evaluation Form - Existing users	Random selection	Independent researcher
Case studies and quotes	Random selection	Independent researcher

GP referred user data

MYMOP	1 st commissioned session	Clinician/pool manager
MYMOP follow-up	2 nd commissioned session	Clinician/pool manager
EQ-5D-L & VAS	1 st commissioned session	Clinician/pool manager
EQ-5D-L & VAS follow-up	2 nd commissioned session	Clinician/pool manager

The commissioned data collected was sanitised before being given to the author to include into their report

Family Voice Telephone Survey

Over a period from 26/9/12 to 10/10/12 a telephone survey was conducted using the database from Family Voice-Peterborough.

28 Family Voice members were randomly selected. The questions asked were for the purpose of gathering information about St. George's hydrotherapy pool. This was to help give a snap shot of public understanding about the pool within the community.

1. Have you heard of St.George's hydrotherapy pool	YES	NO
	20	8
2. Where did you hear about the hydrotherapy pool?		
Word of Mouth	8	
GP/medical professional	1	
Media Story	1	
Leaflet/poster	2	
Other	8	
Not heard of pool	8	
3. Would you like to use the pool?	YES	NO
<i>Comments were invited – see below</i>	24	4
4. Have you ever used the hydrotherapy pool?	YES	NO
	3	25

User comments about question 3 – Would you like to use the pool?

Yes:

Not used recently, but have booked in for next week

Found it okay but time was limited.

The changing rooms are too small-had to share space

Mum has used the pool, but is too unwell at the moment, but I haven't personally used it

It was long time ago when children were very young-just lost interest

No:

Didn't know when open and access.

I don't have time, I can't swim.

I can't swim, it doesn't appeal to me. I'm as 'fit as a fiddle' I don't see the need to use it.

Not interested.

I don't know what it's about.

I haven't had the time, my children do a lot of swimming at regional pool with school, but I would like more information.

Was not sure of criteria needed.

Didn't know if I could use it.

Didn't know how to.

Lack of information-didn't know where to find it.

I didn't think it was open to the public.

Didn't know anything about it

Knew about it, but hadn't realised the public could use it, thought it was for disabled people only.

Didn't know we could use it .I have a disabled daughter and would need hoist to get her in

I've just booked my 1st appointment

I hadn't heard about it until yesterday, my friend was telling me she had booked her 1st Appointment, I'm waiting to hear what she has to say.

I didn't know anything about it, but my son has Aspergers and doesn't like noise, would it be too loud for him?

Further information gathered:

25 people have requested news letter/further details mostly by e-mail.

There are a couple of people who have not got access to a computer or e-mail address so requested information to be sent by post.

When asked if they knew about pool 8 people said 'No', but when they were told where it was a few people acknowledged that it was there, but thought it was part of the school and not a separate unit open to the community.

Summary and some thoughts:

A high percentage of people have heard of the pool but have no understanding of the use of the pool and how to access it.

- *This could be addressed by re-designing and simplifying current leaflets and posters.*
- *Ensure that the newsletters are sent out to everyone on the mailing list and regularly updated.*
- *Marketing of the pool to local companies and businesses*
- *Arrange visits to local groups and schools in the community*
- *Ensure physiotherapists and GP surgeries have enough information and understanding of hydrotherapy*
- *This could also be delivered to more specific groups i.e. mother and baby groups, charity groups Age UK, mental health groups.*
- *Strive for media coverage -local radio, television get councillors and celebrity involvement.*

St George's Evaluation users Survey

The evaluation form was designed to collect as much data as possible to measure the benefits if any, that people have had whilst using hydrotherapy. It asked for a time span, and how often they use it. They were also asked to mark on a scale of 0-3 or N/A over 15 headings to rate whether there has been any improvement or not.

They were also asked if they had been in hospital at all over the last 12 months, and why they were using hydrotherapy. They had the opportunity if they chose to share any experiences of the St George's hydro pool and using aquatic therapy. They were also asked if they would recommend St George's Community hydrotherapy pool. Finally they were asked to rate the hydrotherapy pool on a scale of 1 -5. (1-very poor, to 5 - excellent).

This form was kept simple and easy for users to use, which enabled the researchers to capture overall user experience.

To see the evaluation form turn to annexe number 6

Information collated from St George's Evaluation form

47 people took part in the survey- all existing users

Q1) *How regularly do you use the pool?*

- 97% of users visit the hydrotherapy pool once a week, the remaining 3% visited twice a week. (n=41)

Q2) *how long have you used the pool?*

- 11% using the pool in the last 6 months or less (n=5)
- 47% using the pool 6 months – 1 year (n=21)
- 42% using the pool 1 year + (n=19)

Q3) *Have you recently received hospital treatment? (In the last 12 months)*

- 33% said –yes, they had received hospital treatment recently. (n=15)
- 67% said - No, they hadn't received hospital treatment recently (n=30)
- 8 of the 15 (53%) that said 'yes' to hospital treatment stated that it was for a surgical procedure (n=8)

Q4) *Would you recommend hydrotherapy at St George's to your family and friends?*

- 96% - Said **yes**, they would recommend St George's (n=43)
- 2% - Said they would '**Maybe**' recommend St George's (n=1)
- 2% didn't write their view n=(1)

Q5) On a scale of 1-5, how would you rate your experience at St. George's hydrotherapy pool?

Of the 47 people to take part in the questionnaire

- 47 % of people said they rated the pool "EXCELLENT" (n=22)
- 45 % of people said they rated the pool "GOOD" (n=21)
- 2% of people said they rated the pool "AVERAGE" (n=1)
- 3 people didn't rate (6%)

Summary

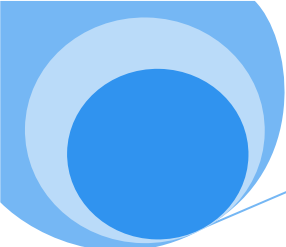
The chart below shows in percentages the results. Over the 15 headings it can be seen that there has been significant improvement on all of the headings for long term users.

The results demonstrate that three regular sessions or more (long term use) of hydrotherapy are beneficial for people with various conditions to help with controlling pain, helping people keep mobile, helping their balance and co-ordination. Some users feel this could mean keeping them out of a wheel chair and being able to keep their independence for as long as possible.

It also demonstrates that hydrotherapy provides holistic benefits to the individual, improving their energy levels and general fitness. It would also suggest that quality of life, sleeping pattern, self confidence and relaxation results show mental 'health and wellbeing' are being supported by using hydrotherapy on a regular basis.

Results

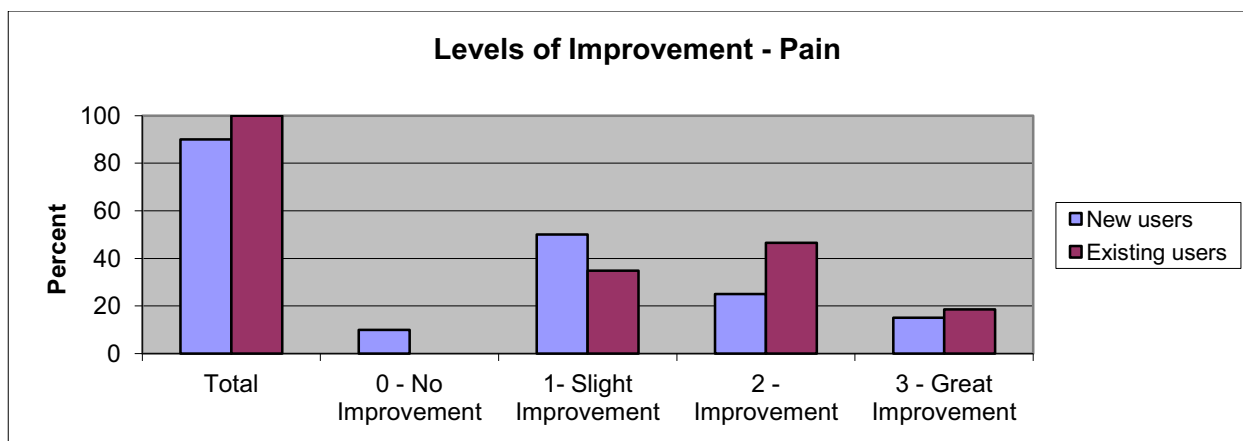
	Total % of overall improvement	0-No Improvement %	1-Slight Improvement %	2-Improvement %	3-Great Improvement %
Pain	100.00	0.00	34.88	46.51	18.60
Mobility	97.73	2.27	29.55	47.73	20.45
Range of joint movement	93.18	6.82	25.00	40.91	27.27
Balance and co-ordination	86.49	13.51	29.73	29.73	27.03
Muscle strength	95.00	5.00	30.00	40.00	25.00
Muscle spasms	80.00	20.00	20.00	32.00	28.00
Circulation	88.57	11.43	34.29	25.71	28.57
Energy levels	85.37	14.63	31.71	36.59	17.07
General fitness	90.48	9.52	19.05	59.52	11.90
Self-confidence	92.31	7.69	25.64	30.77	35.90
Relaxation	97.62	2.38	14.29	42.86	40.48
Sleeping pattern	76.92	23.08	33.33	30.77	12.82
Wellbeing/quality of life	95.45	4.55	27.27	43.18	25.00
Medication lowered	44.44	55.56	19.44	2.78	22.22
Reduced visits to GP	57.14	42.86	28.57	2.86	25.71



The following pages have tables and graphs comparing improvement levels between new users, if a relevant symptom, on their third session of hydrotherapy and existing users, who have had six sessions or more.

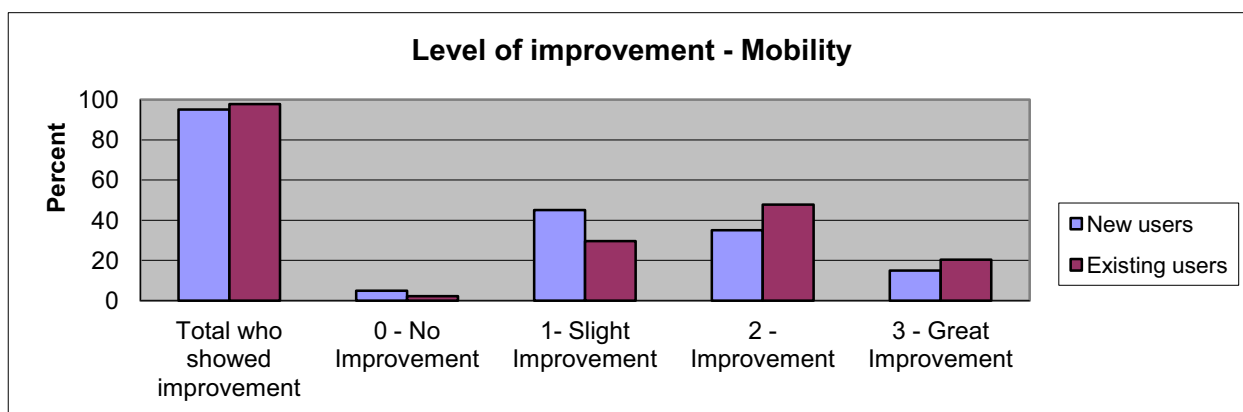
St George's Evaluation-New and existing users

Breakdown of results between new users and existing users



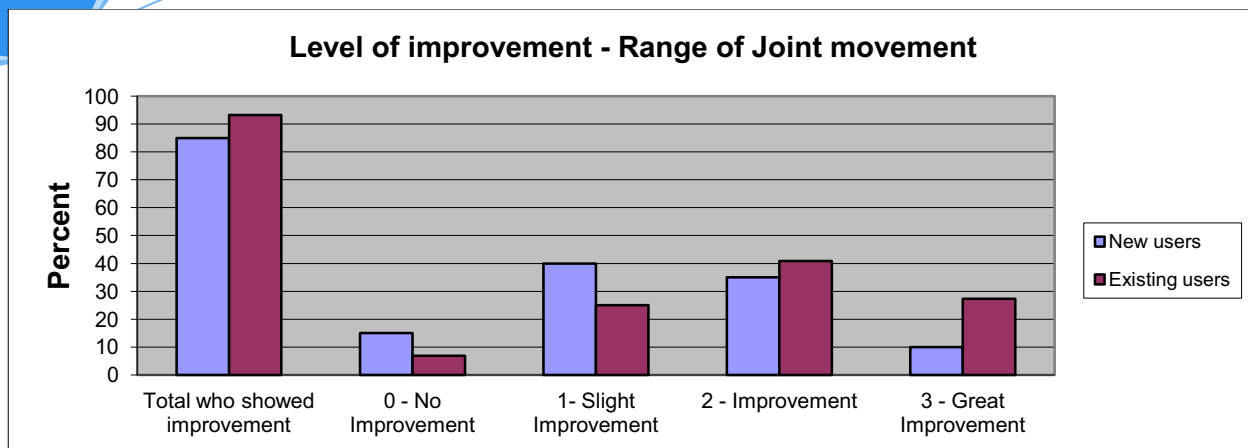
PAIN results shown in %	Total who showed improvement	0 - No Improvement	1 - Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	90	10	50	25	15
Existing users (6 sessions or more)	100	0	35	47	19

New users N=20 Existing users N=43



MOBILITY results shown in %	Total who showed improvement	0 - No Improvement	1 - Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	95	5	45	35	15
Existing users (6 sessions or more)	98	2	30	48	20

New users N=20 Existing users N=44

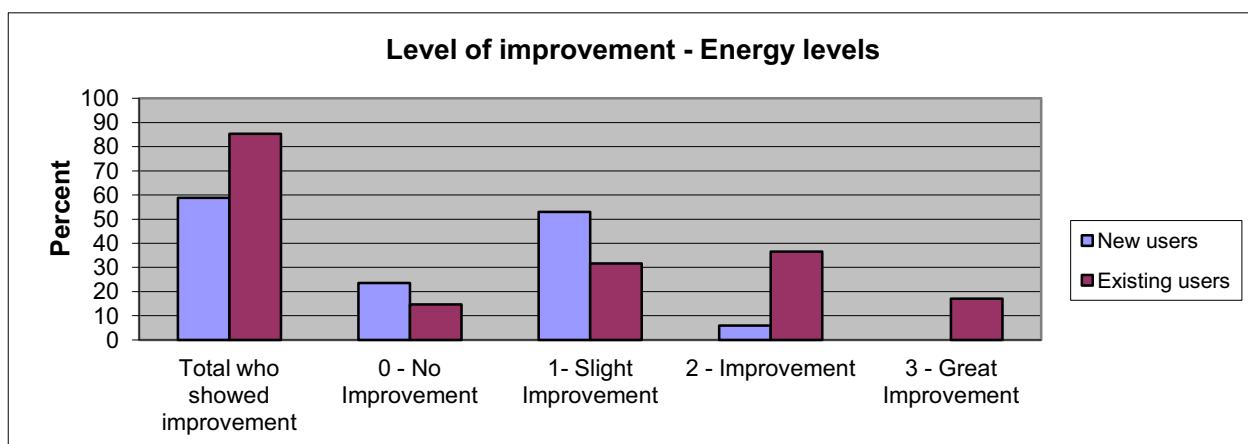


RANGE results shown in %

	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	85	15	40	35	10
Existing users (6 sessions or more)	93	7	25	41	27

New users N=20

Existing users N=44

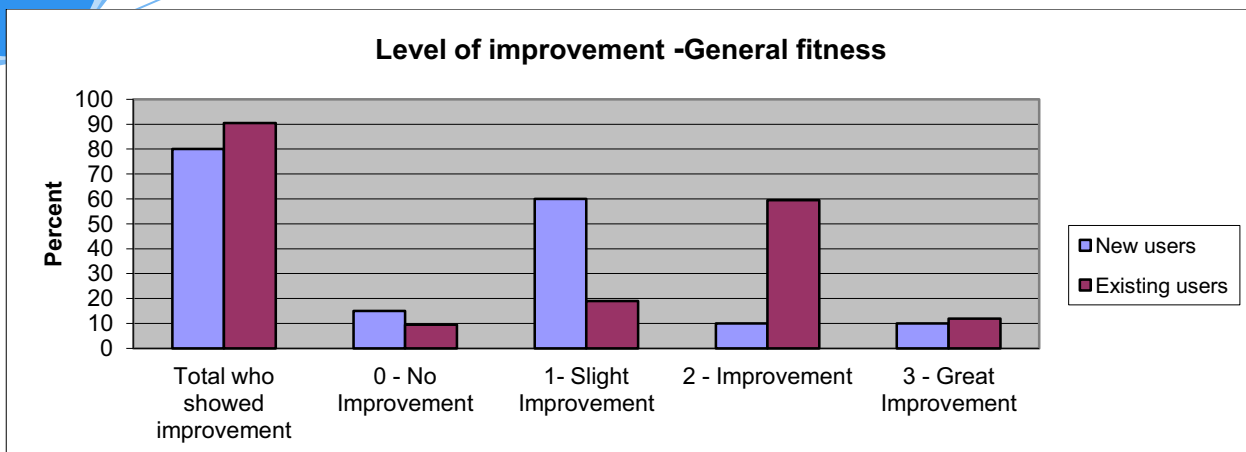


ENERGY results shown in %

	Total who shows improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	59	24	53	6	0
Existing users (6 sessions or more)	85	15	32	37	17

New users N=14

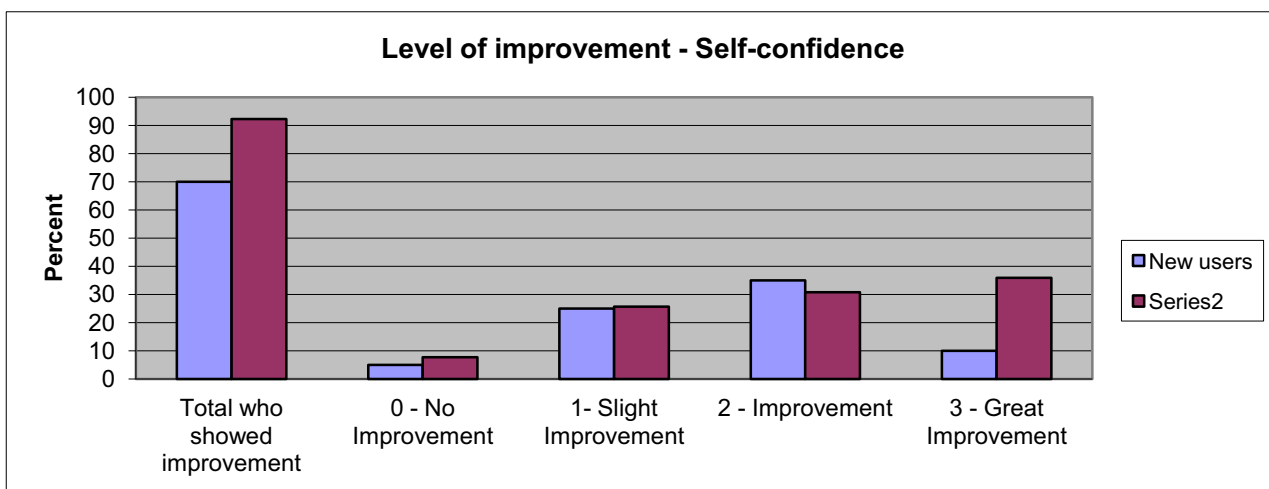
Existing users N=41



General fitness results shown in %

	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	80	15	60	10	10
Existing users (6 sessions or more)	90	10	19	60	12

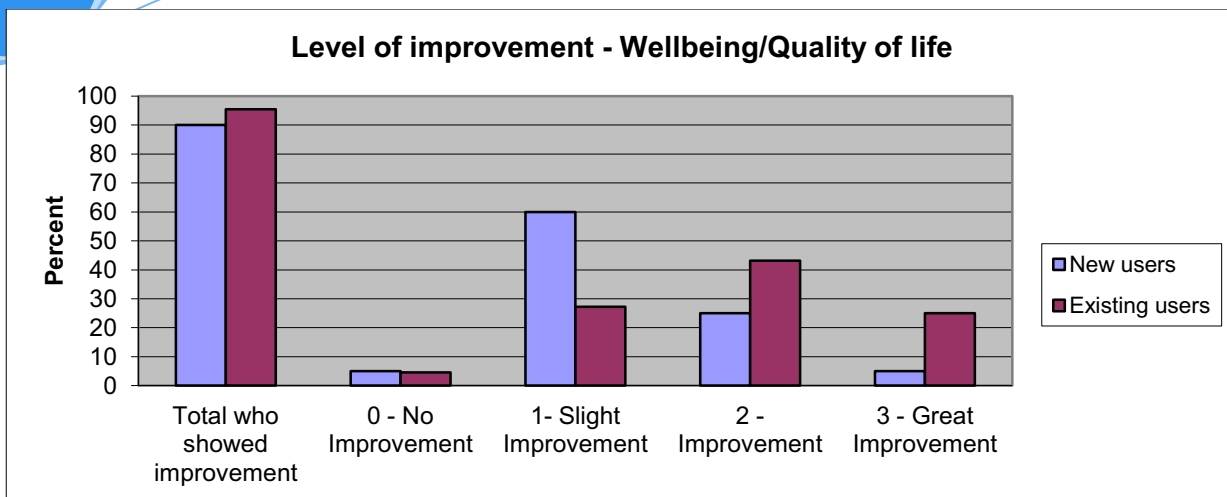
New users N=19



SELF CONFIDENCE results shown in %

	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	70	5	25	35	10
Existing users (6 sessions or more)	92	8	26	31	36

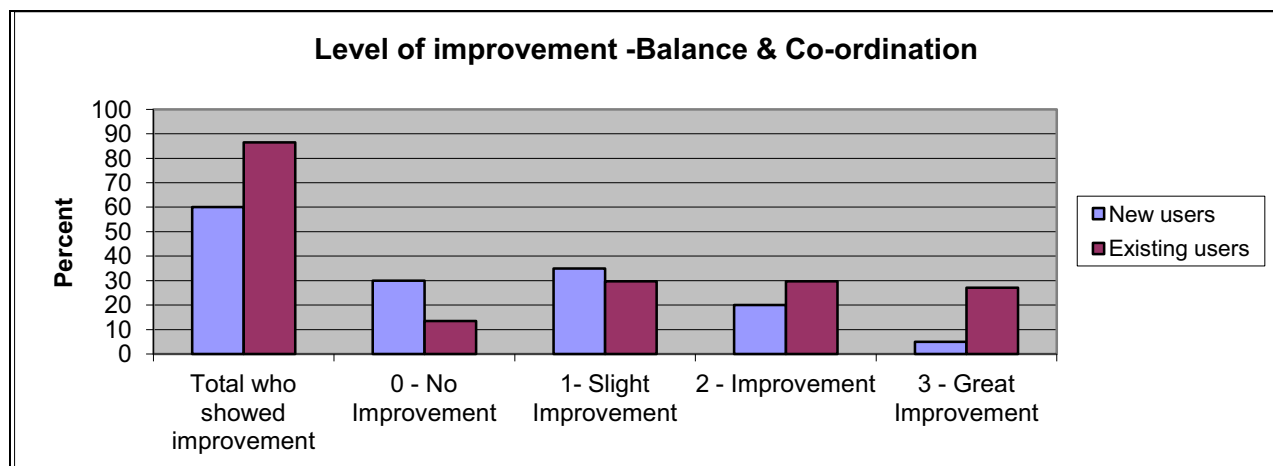
New users N=15 Existing users N=39



WELLBEING results shown in %	Total who showed improvement	0 - No Improvement	1 - Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	90	5	60	25	5
Existing users (6 sessions or more)	95	5	27	43	25

New users N=19

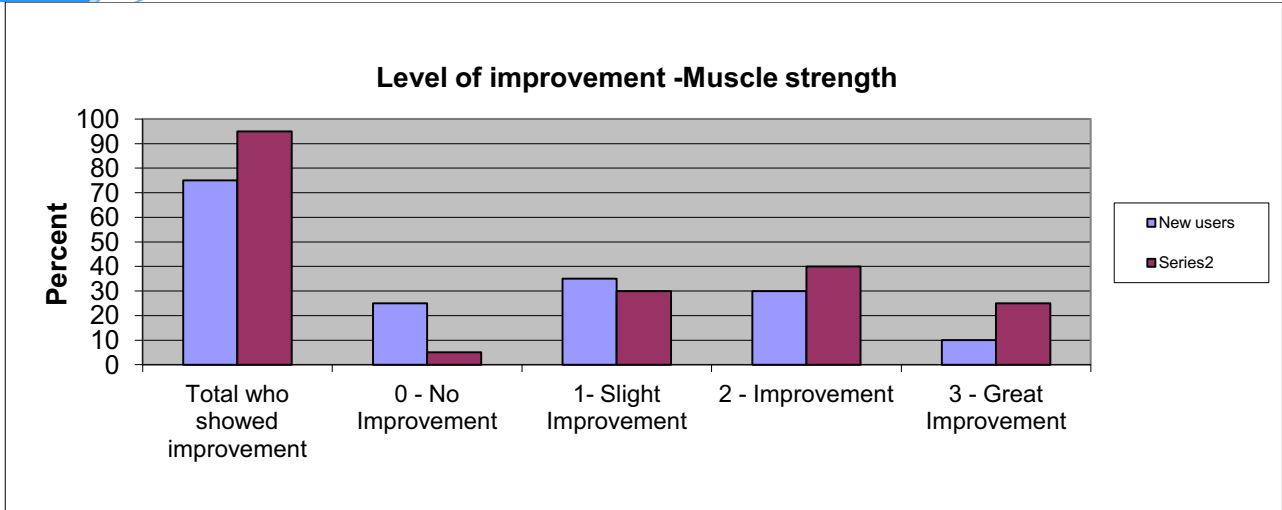
Existing users N=44



Balance and Co-ordination results shown in %	Total who showed improvement	0 - No Improvement	1 - Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	60	30	35	20	5
Existing users (6 sessions or more)	86	14	30	30	27

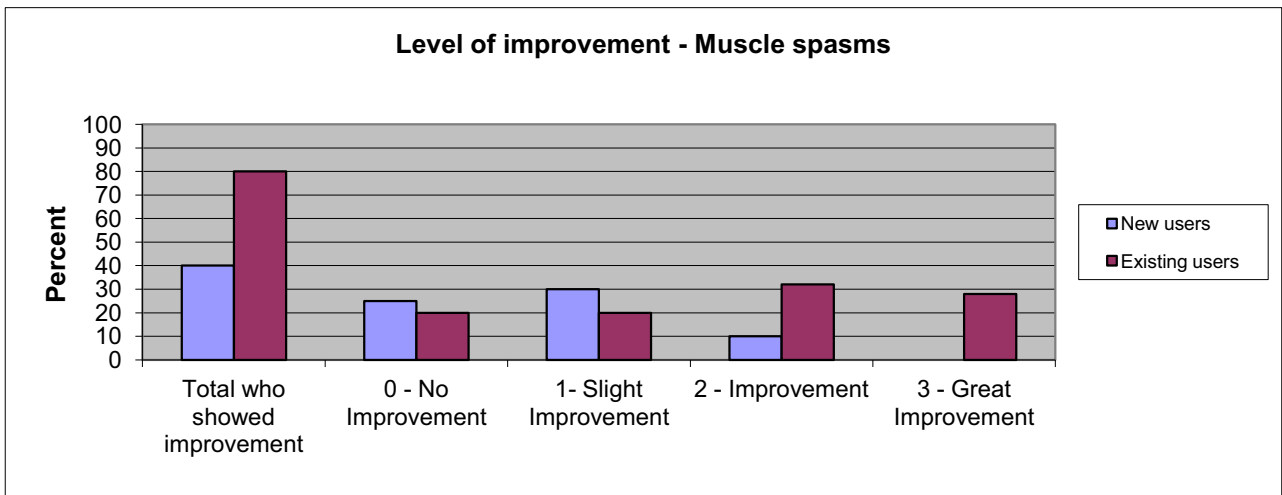
New users N=18

Existing users N=40



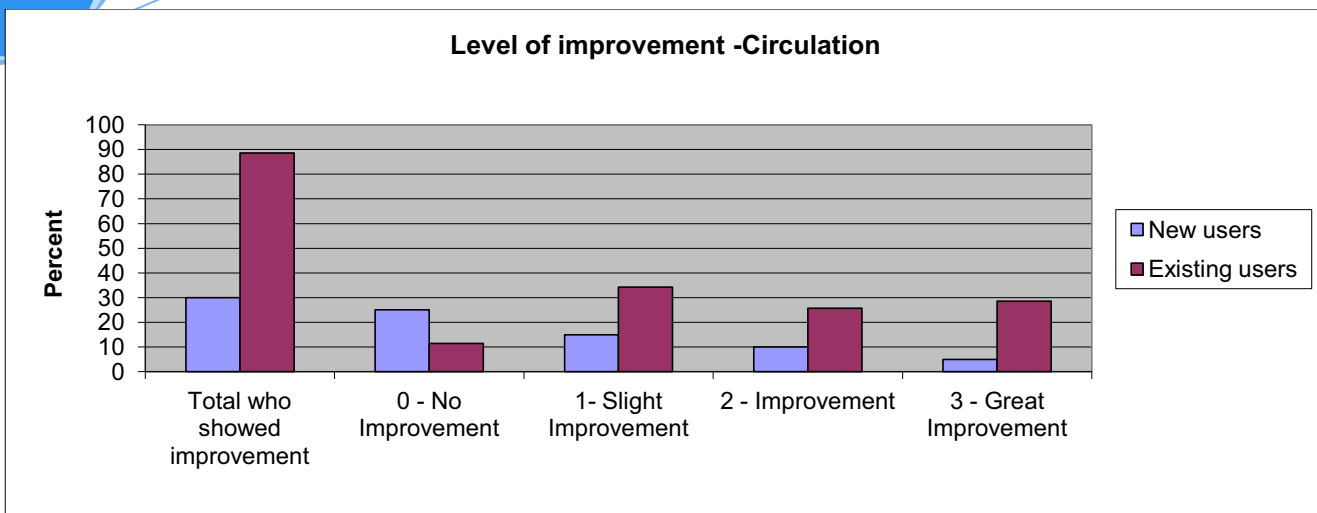
Muscle strength in %	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	75	25	35	30	10
Existing users (6 sessions or more)	95	5	30	40	25

New users N=20
Existing users N=37



Muscle spasms results shown in %	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	40	25	30	10	0
Existing users (6 sessions or more)	80	20	20	32	28

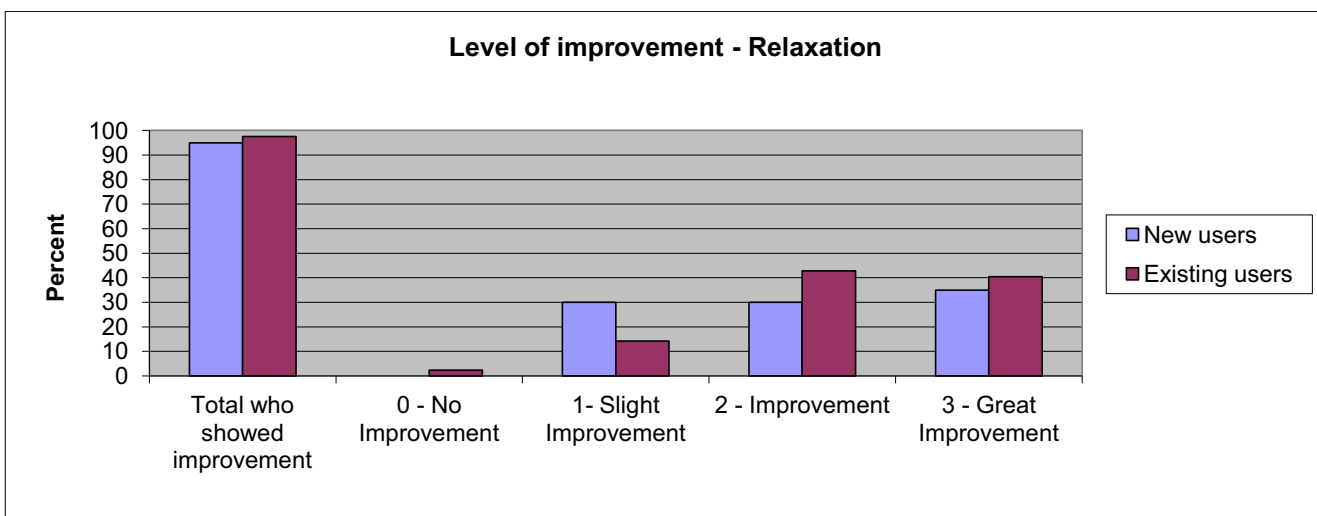
New users N=13
Existing users N=25



Circulation results shown in %

	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	30	25	15	10	5
Existing users (6 sessions or more)	89	11	34	26	29

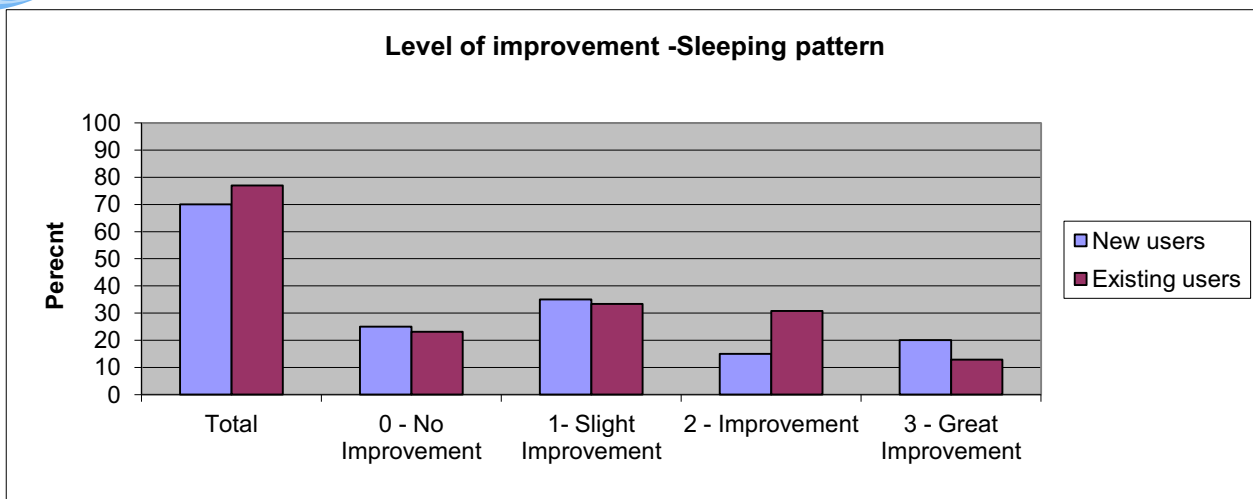
New users N=11
Existing users N=35



Relaxation results shown in %

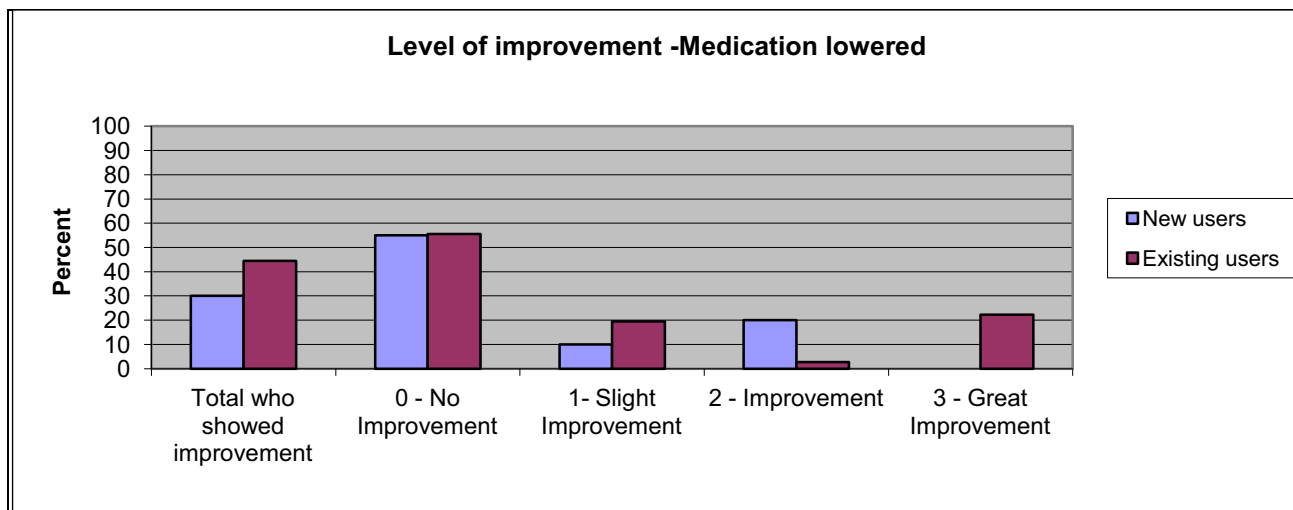
	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	95	0	30	30	35
Existing users (6 sessions or more)	98	2	14	43	40

New users N=19
Existing users N=42



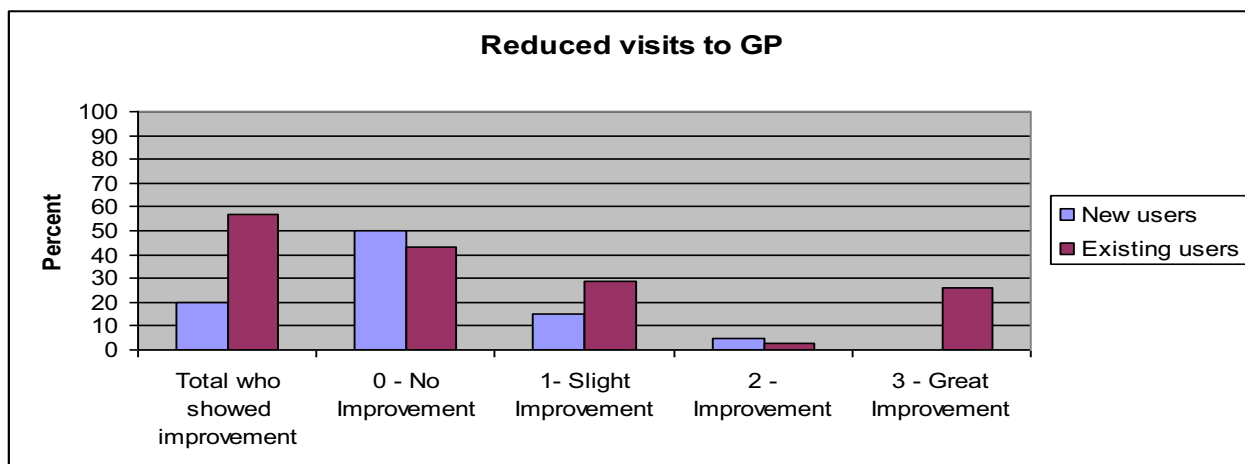
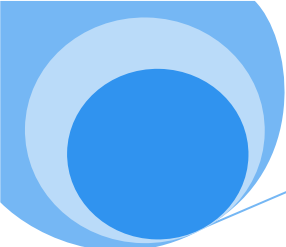
Sleep pattern results shown in %	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	70	25	35	15	20
Existing users (6 sessions or more)	77	23	33	31	13

New users N=19
Existing users N=39



MEDICATION LOWERED results shown in %	Total who shows improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	30	55	10	20	0
Existing users (6 sessions or more)	44	56	19	3	22

New users N=17 Existing Users N=36



REDUCED GP VISITS results shown in %	Total who showed improvement	0 - No Improvement	1- Slight Improvement	2 - Improvement	3 - Great Improvement
New users (third session)	20	50	15	5	0
Existing users (6 sessions or more)	57	43	29	3	26

New users N=14

Existing users N=35

Summary conclusion

The data collected using the evaluation form has shown great support for using hydrotherapy (aquatic therapy) for a complex variety of conditions. All the users were self-referring, paying clients who have sourced hydrotherapy through their own means including internet research, word of mouth, advertising or recommended by someone.

The majority of existing users have been using the pool regularly once a week, between 6 months and a year. This would support the theory that regular long term hydrotherapy sessions are found to be beneficial to most users.

A third of those have received hospital treatment in the last 12 months, half of those stated that they had a surgical procedure in relation to the condition that they use the pool for. Many of the existing users have shown great improvement right across the heading. The results from new users have also been very encouraging, and show a similar trend. 100% of existing users showed improvement with their levels of pain. The results show many of the existing users have shown great improvement right across the headings.

The results from new users have also been very encouraging, and show 90% of new users also reporting that their levels of pain had improved over a short time of using the pool.

90% of existing users and 80% of new users are both showing significant improvement in their general fitness. Both groups have reported very encouraging

scores of improvement with mobility and a steady improvement with range of joint movement.

Energy levels shows 85% of existing users are gaining a steady feeling of having more energy, were 59% of new users have shown slight improvement.

With an amazing score of 95%, existing users say that their wellbeing and quality of life has improved since using hydrotherapy. 90% of the new users also reported that their quality of life and general wellbeing had improved.

An impressive 44% of existing users and 30% of new users said they have been able to reduce their medications since using hydrotherapy for their conditions.

The results shows 50% of longer term users and 20% of new users have reported reducing their visits to their GP. It gives good evidence that hydrotherapy covers many important aspects, including helping to reduce GP visits, emergency hospital admissions and medication. Whilst also demonstrating the increase in personal health and wellbeing and less pain.

Hydrotherapy enables local people to access a facility that is not a luxury, but an essential part of the patient pathway to recovery and/or rehabilitation. It is also a vital provision that stabilises or improves a number of longer term conditions.

Family and Friends Test

'Would you recommend St George's Hydrotherapy pool to friends and family?'

A resolute **96%** of users stated they would.

List of conditions from evaluation forms:

**Knee surgery & replacements; recovering from stent operation; stroke; Rheumatoid arthritis; Ankle surgery; Pain in thigh; General wellbeing/fitness; Kyphoscoliosis; Diabetic; Spinal muscular atrophy; Spasmodic back pain; Various –Arthritis; back pain and slipped disc; Cerebral palsy; Insomnia; Muscle weakness /spasms
Arm surgery; Cervical spondilosis; Spinal muscular atrophy; Ehlers-Danlos Syndrome; Breast cancer-radiotherapy recovery; Developmental dyspepsia; Osteoporosis; Selective dorsal rhizotomy
Osteoarthritis; Hip replacement; Walking/standing - weight issues breast cancer; Fibromyalgia; ME; Anxiety; Foot surgery; Joint problems; Nerve compression; weight bearing on leg; Ankylosing Spondilitis; Neck problems;**

EQ-5D-L

The Eq-5d-l is a tried and tested questionnaire that gives a holistic picture of the patient. It is well recognized throughout the health services. It is useful for researchers and clinicians, health care providers and policy makers who need to evaluate health care.

EuroQOL (EQ-5D)⁵. The EQ 5D has five domains (physical, self care, ability to perform usual activities, pain/discomfort, and anxiety/depression) and five levels of severity on each domain. Scoring generates a single health state profile and subsequently a single utility score.

Patients also rate their own health on a visual analogue scale, ranging from 0 (worst imaginable health state) to 100 (best imaginable health state).

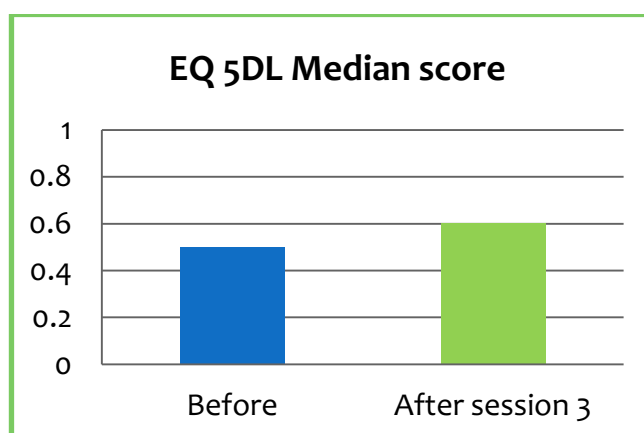
EQ-5D-5L Results for self referring hydrotherapy users

	Before treatment	After treatment (Session 3)
	N=33	N=18
Mean (Standard deviation)	0.488 (0.242)	0.561 (0.171)
Median	0.498	0.602

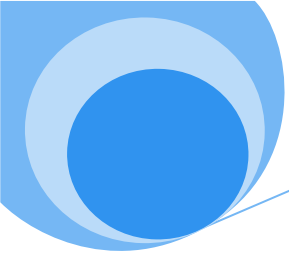
(Scale: 1 = full health and 0 = death) (Better health depicted by higher scores in Eq-5d-l)

The results from the self referring users who took part in the EQ-5D-L questionnaire have shown: Between their first session and their third session there had been a small change of improvement in their index values. The EQ 5D score improved by mean .073, median .10

Graph showing EQ-5DL figures for self referring user



⁵ The EuroQol group. EuroQol – a new facility for the measurement of health related quality of life, *Health Policy* 1990;16:199-208.

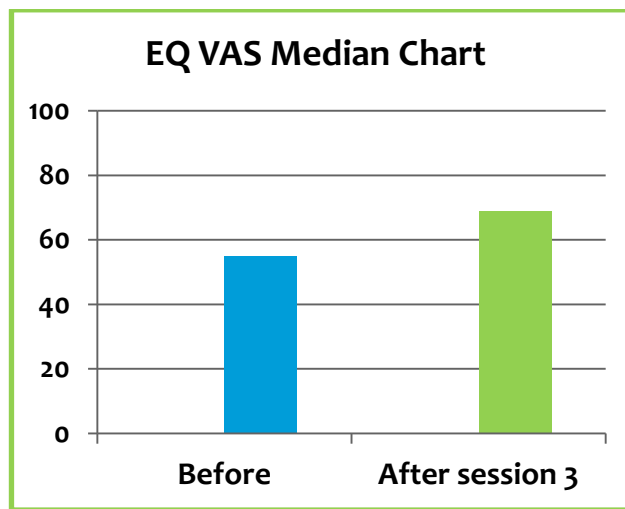


EQ-5D VAS score results for self referring hydrotherapy users

	Before treatment	After treatment (session 3)
	N = 33	N = 18
Mean (standard deviation)	57(18.68)	60 (21.34)
Median	55	69

The EuroQol Vas scores showed improvement of mean +3, Standard deviation 2.66, and median of +14

Graph showing EQ VAS figures for self referring user



Measure Yourself Medical Outcome Profile (MYMOP)

MYMOP is a tried and tested questionnaire that gives a holistic picture of the patient. Numerous studies show their specificity and reliability. With their consent, each user was asked to complete Measure Yourself Medical Outcome Profile (MYMOP) form immediately prior to treatment and post treatment.

MYMOP is an individualised questionnaire where the patient is asked to nominate the problem that they are coming to use the hydrotherapy pool for help with (symptom 1 & 2) and one way in which it affects their daily living. The patient scores severity on a seven point scale and also scores their general well being. An overall MYMOP profile score and individual dimension scores are calculated. The Mymop questionnaires were administered according to their standard instructions. MYMOP designed by Dr Charlotte Paterson⁶ Mymop has been used by clinicians, GPs and the NHS .

Self referring users -session 1 & 3

The MYMOP was used to determine the effectiveness of the treatment of hydrotherapy (aquatic therapy). Initial sessions 1, 3 and 6 were going to be the target sessions to collect data. For various reasons; users being poorly, unable to attend, being in hospital, not wanting to continue. The figures for session 6 were too small so we have concentrated on session 1 and 3 only.

The MYMOP has an initial assessment and a follow-up assessment. The follow up assessment was 2 sessions after the initial assessment. Below is a table of the findings, detailing the changes. The MYMOP scales range from 0-6. Higher values represent the worst outcome and lower scores represent the best outcome.

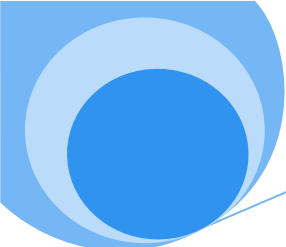
MYMOP Results

The questionnaire data was transferred from paper data collection forms to an excel spreadsheet where it could be analysed.

Self referring new users (Questionnaire responders n=31)

	Number	Percent
Female	24	77 %
Male	7	23 %
Gender not reported	0	0 %
Duration of health problem		
4 -12 weeks	2	7 %
3-12 months	6	19 %
1-5 years	8	26 %
Over 5 years	15	48 %

With an average age of 52 years old



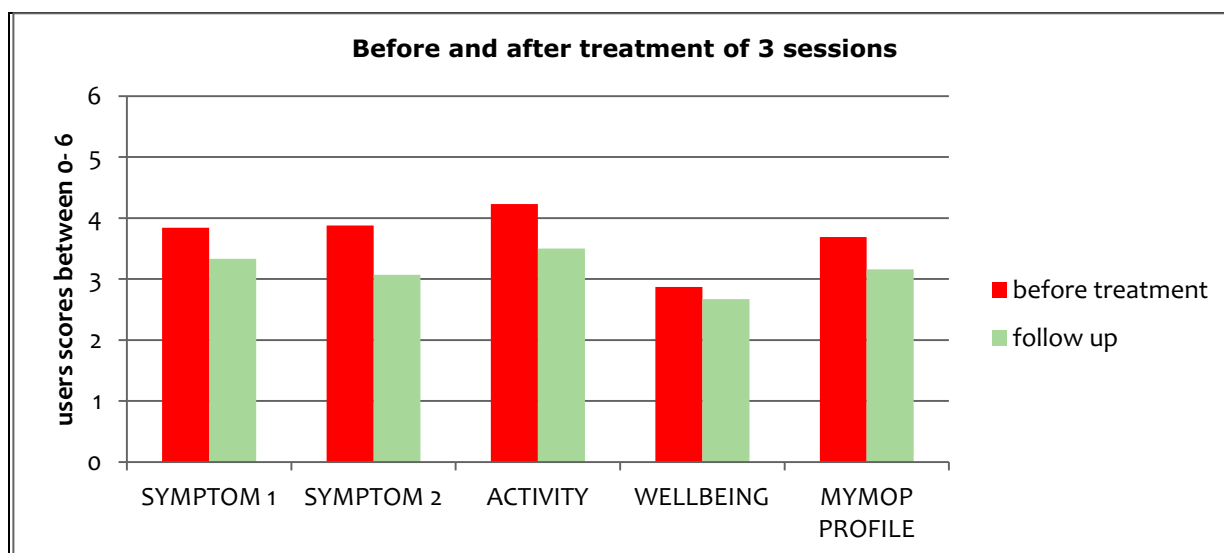
MYMOP Results for new self referring users

MYMOP scores	Before treatment	At follow-up (3 sessions)	Change in score	
	N=31	N=18	Mean (SD)	95% confidence interval
Symptom 1 n.31	3.84 (1.18)	3.33 (1.41)	0.51 (1.09)	0.13 0.89
Symptom 2 n = 26	3.88 (1.21)	3.07 (1.10)	0.82(0.79)	0.52 1.12
Activity n = 31	4.23 (1.12)	3.50 (1.29)	0.73 (1.04)	0.35 1.10
Wellbeing n = 30	2.87 (1.55)	2.67 (1.14)	0.20 (1.55)	0.65 075
MYMOP profile n = 31	3.69 (0.84)	3.16(0.99)	0.53 (0.65)	0.30 0.76

Scale: 0="as good as it can be" to 6 ="as bad as it could be." rated by the user.

Although the number of participants was small the majority showed improvement. This study indicates that overall there were positive effects over the three sessions of hydrotherapy.

MYMOP chart - new self referring users



MYMOP scored 0-6, with lower scores = better health

Improvement was found for Symptom 1, Symptom 2, Activity, and Wellbeing. These findings indicate that the treatment was a positive success

The MYMOP profile score represents the overall experience for the patient. As shown, this score was *lower* after treatment, indicating success with the treatment.

This shows that even after a short trial period of three sessions improvement overall can be seen. This would support the St George's evaluation report that long term use of hydrotherapy produces successful results.

The MYMOP also asks patients about the importance of reducing medication and about the doses of medication that they are on, 39% of patients indicated that cutting down medication was very important to them and 19% were successful in reduction or cessation. This indicates some success with the treatment.

(A change in score is clinically significant when it represents a change that is of importance to the individual patient concerned. Using a seven point score such as MYMOP, the clinically minimal important difference for the change score is between 0.5-1.0. This means that any change below 0.5 does not represent a change of any importance to the patient, and any change above 1 probably does. In-between 0.5 and 1.0 we are uncertain. ^{7 8})

⁷ Guyatt GH, Juniper EF, Walter S, Griffith L, Goldstein RS. Interpreting treatment effects in randomised trials. British Medical Journal 1998;316:690-693.]

1. ⁸ [MYMOP - Faqs sites.pcmd.ac.uk/mymop/index.php?c=faqs](https://sites.pcmd.ac.uk/mymop/index.php?c=faqs)

CASE STUDIES

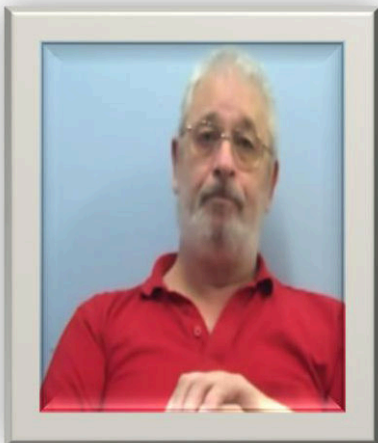


JACKIE MANDLEY- lives in Chatteris, and has been a regular visitor and user of the hydrotherapy pool since April 2012. She uses the pool once a week. Jackie has arthritis in her right hip and is also waiting for a hip replacement. Jackie found out about hydrotherapy and the pool through visiting her masseuse for her monthly massage. She discussed using the hydrotherapy pool with her consultant who also agreed, and recommended it after her surgery too.

Jackie finds it very difficult to walk upright, and struggles with land based exercise. Using the hydrotherapy pool she finds exercising in water so much easier as the water supports her body, enabling her to stand up straight.

Jackie believes that it is using the hydrotherapy pool that keeps her mobile, helping to strengthen her muscles.

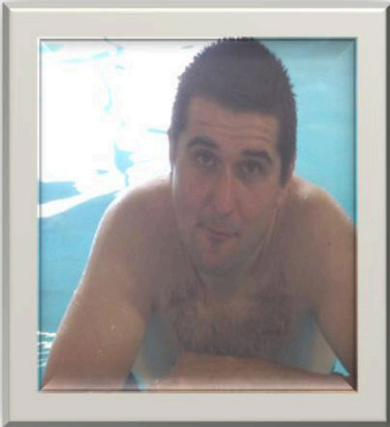
Jackie said" I can move in the water without the pain and can walk upright in the pool. It makes such a difference to me; it is also mentally refreshing too. When you struggle with pain and aches on a daily basis it wears you down, if I'm having a low day, once I get in the pool and start moving around I start to feel uplifted. There's always a great group of people there. I come with my friend, and it's like a social gathering- the lifeguards are so friendly and kind too. I would definitely recommend the hydrotherapy pool to friends and family."



Peter Hook from Parnwell has started to use the hydrotherapy pool after undergoing a hip replacement. Peter had found that his recovery from his hip operation was very slow. He had been off work since June and had surgery in September 2012.

Peter said "I had been on very strong pain killers and didn't seem to be getting any better. I was at the end of my tether, and decided I needed to investigate whether I could do something different. I used the internet and found out about St George's and hydrotherapy. When I had my first session I enjoyed the warmth of the water, and it enabled me to move through the water without the pain. It means I can exercise without the strain and it has made a

marked improvement on my health and well- being. Mentally I'm in a much better place and start back to work part-time next week .I will carry on using hydrotherapy, it's a great way to keep fit and trim. I do recommend hydrotherapy to everyone."



Darren Towell was knocked down by a car last September whilst walking on the pavement over the town bridge in Stamford. He broke both legs and severely damaged both cartilages and ligaments in his knees.

After 3 months of bed rest while the breaks healed and the swelling to both knees subsided, he lost most of the muscle tone in his legs and gained quite a bit of weight. He started land based physio but could not weight-bear unless he used a walking frame, Eventually he was able to weight-bear long enough to build up enough muscle tone to walk very short distances and tackle a few stairs using crutches.

He was then advised to try the hydrotherapy pool which he says; "has been an absolute godsend, it has enabled

me to have a lot more movement in my legs and has also built up my muscles again. The hydrotherapy pool has also been a very good meeting place to talk to people who have similar conditions. The staffs are very friendly and there is always a good atmosphere. I would recommend this to anyone who has had an operation, got poor circulation or who has got limited movement with aches and pains. It has definitely speeded up my recovery. Before I started using the pool my consultant and physiotherapist thought I was going backwards with my rehabilitation.



Karen Oldale-conditions: Spinal muscular atrophy, Ehlers-Danlos Syndrome, Developmental dysplasia of the hips (6 left hip operations) Osteoarthritis, Osteoporosis, Kyphoscoliosis, Mild heart failure.

Hydrotherapy is the only treatment I have received that has genuinely worked and helped improve my conditions. I use it to manage my pain; I do not take any medication for this at all. Hydrotherapy allows me to manage my conditions and I very rarely visit my GP. I use hydrotherapy as an alternative to hospital procedures, such as facet joint injections.

For the past ten years, hydrotherapy has enabled me to postpone major and complex hip surgery at Guys. By continuing hydrotherapy I hope I can prevent it altogether. There are enormous financial and personal benefits to this.

It has genuinely slowed the degenerative progress of my conditions and allows me to retain a greater degree of independence for longer. Without regular hydrotherapy, I have increased pain and signs of irreversible muscle weakness within a couple of weeks. Pain, lowered medication intake, energy levels and wellbeing/quality of life are the four most important aspects for me, and in all these I have gained great improvement through hydrotherapy. If hydrotherapy was not available to me, I'm certain none of the above would continue."

User's stories and quotes

Female user - 62 years old. She has been using the pool for about six months and visits on a weekly basis. She suffers with Arthritis and has found using the hydro pool very beneficial. Mrs.M. said

" the pool is brilliant, and has changed my life as I have a lot of pain and have mobility issues. I make sure I come regularly to the pool as it helps to keep my joints moving. If I miss a session I can really feel the difference. It's something that I enjoy doing and I look forward to coming each week. I'm proof it works".

User in her 50's- she has used the pool over the last year and a half on a weekly basis with her friend. She has been using the hydrotherapy pool to help with muscular pain, and to help with her Arthritis.

They both agree that it helps relieve some of the stresses of life too. Using the pool has helped them to socialise, meeting up with other users, and getting them out into the community. They both recommend using the hydrotherapy pool to friends and family.

A user aged 51 years old Recovering from spinal surgery- Mrs S. uses the pool weekly said, "I've been coming to the hydrotherapy pool for just over a year. I originally came to ease the pain as I had a lot of spasms in my back and I was waiting for spinal surgery. Now I've had the surgery, so I'm now building my core muscles again. I find it great for relieving the pain, and great to be able to exercise without weight bearing. I find the physiotherapist very helpful- I recommend it to everyone. I haven't met anyone yet who hasn't got something beneficial from using the pool."

User with back and leg trauma- 47 years old

"I suffered a fall and lost the use of my leg, I also had to have a hip operation. I struggled with land based physiotherapy. Progress was slow, and I wondered if I would ever recover. After using the hydrotherapy I found I could reduce my painkillers and other medication too. This made me feel much better- mentally- I had been in a very low place. I was shown gentle exercises to try, and to be able to move in the warm water enabled me to do so much more than I could with land based physio. I wish I had been told about it earlier, I wish my GP had known more about hydrotherapy. I now walk unaided, and have returned to work. I would definitely recommend it to friends and family"

Mrs T talking about her son: 'My son comes to hydrotherapy once a week. He is autistic and water has a very calming influence on him. It really calms him when he is finding situations difficult. It is the only thing that calms him down. He has a trapped nerve in his skull which is causing him a lot of pain. He has found this very difficult to cope with, so hydro has been a godsend and he really looks forward to it each week. It makes him calm for the rest of the day even if he is in discomfort with pain, it helps him deal with it better'

LINK Pathfinder Healthwatch Peterborough

In 2010 Peterborough LINK were contacted by Karen Oldale who raised the awareness of a lack of hydrotherapy facilities locally. The new Peterborough City Hospital did not re-locate the provision after a drop in referral rates at Peterborough District Hospital. LINK worked in partnership with adult social care, health services, hospitals, local community groups, councillors and other interested parties to research and attempt to find a solution to the loss of this service. LINK organised and facilitated partnership meetings across the city to listen and collate information about the service from local people.

Research showed that there were 35,000 people with long-term conditions in the city, so re-establishing this provision for local people was vital.

A local under-used local authority pool was identified as a possible alternative. Peterborough City Council funded refurbishment and management costs to evaluate the demand for the pool during the trial open week. Between 23rd and 30th March 2011 users came from across the city to see, use and evaluate the pool. In the first four weeks over 200 had used the pool from across all parts of the city.

LINK formulated a survey to obtain constructive feedback about the pool and the effect of hydrotherapy as a health provision. The demand was overwhelming, and the benefits to those who used the pool were demonstrated in the comments and reactions from users and carers.



St George's Open Day 2011

The age of users range from the very young to senior citizens over 80 years of age. Users have come from central, outlying, rural parts of Peterborough covered by 24 wards.

Under government reforms to the NHS, clinical commissioning was becoming the new way of commissioning NHS services, in January 2012 LINK lobbied over 100 local GPs to commission hydrotherapy-with support from numerous local and national statutory and voluntary organisations - who have supported and championed the need for the pool.

Peterborough LINK delighted Hydrotherapy Pool to be commissioned:

"This is fantastic news and a massive step in securing the future of hydrotherapy locally. Many people behind the scenes have worked very hard to make this facility available. There is clear evidence that it is both cost effective and hugely beneficial to those who use it - and the carers to those who use it. This decision will increase patient choice and demonstrates how valuable local people and organisations working together can be."

David Whiles

Chair – Peterborough LINK

What does commissioning mean?

At the end of September 2012, NHS Peterborough sent information packs explaining that a commissioned NHS aquatic physiotherapy service was now available at St George's Community Hydrotherapy Pool to every GP practice in the Peterborough and the surrounding Borderline area.

This means GPs working in these practices can refer suitable patients for two sessions of hydrotherapy at St George's with an aquatic physiotherapist.

Patients in Lincolnshire are also able to receive the same service at St George's because NHS Lincolnshire has agreed to be an associate to this commissioning agreement.

The commissioning of this provision will increase patient choice and the available services a GP can offer for a range of conditions.

The commissioning of this service addresses the Equalities Act 2010 by providing a service for the health and wellbeing of disadvantaged groups by making the provision available to all and tackling local health inequality.

The first patient cutting the ribbon at the opening ceremony for commissioning at St George's:



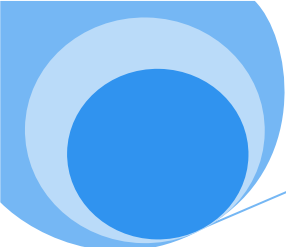
It is decided by the GP if a patient is suitable for aquatic therapy. Each patient can have two NHS aquatic therapy sessions.

The aquatic therapist will assess the patient and plan an individual treatment programme for them. They receive exercises appropriate for their condition to practise in the water.

Their second aquatic therapy session will be very similar to the first, followed by an assessment.

After the two sessions the aquatic therapist will send a report on their progress to the GP.

They would be able to continue with their aquatic therapy programme either in a supervised class or on their own at St George's by using the self-referral pathway. Commissioning addresses health inequalities and makes the provision available to anyone who needs it.



EQ-5D-5L Results for GP Commissioned Patients

GP commissioned patients attending their first appointment were asked if they would fill in the same EQ-5D-L questionnaire that self-referring users also completed.

The following charts and grids show the results of this questionnaire.

	Before treatment	After treatment (Session 2)
	N=34	N=31
Mean (Standard deviation)	0.521 (0.293)	0.523 (0.336)
Median	0.5375	0.567

Scale 1=full health and 0=death (better health depicted by higher scores in Eq5dl)

Spread sheet of Eq-5d-l GP commissioned users shown in appendix 11 and 12

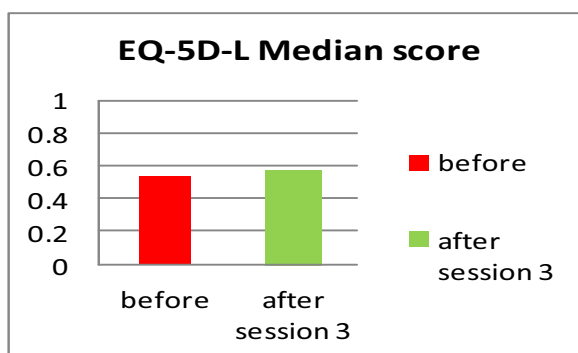
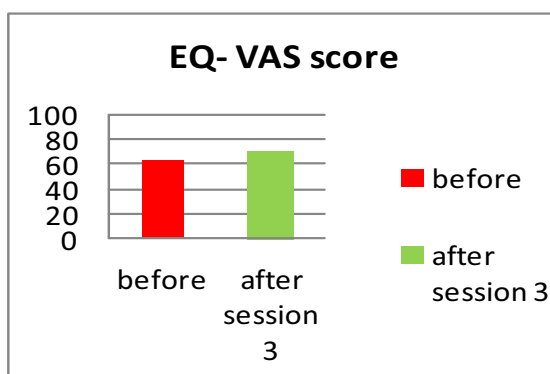
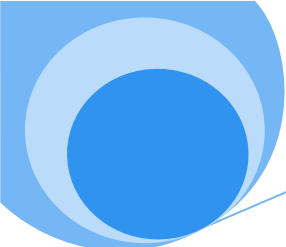


Table showing EQ-5D VAS score

	Before treatment	After treatment (session 3)
	N = 33	N = 18
Mean (standard deviation)	57 (30)	62 (25)
Median	62.5	70.





EQ -5d-I and EQ VAS results have not shown any great change in results.

The EQ Vas scores showed result mean of +5, standard deviation -5, median +7.5.

Because EQ VAS asks the user how they are on that particular day may not reflect specifically to their condition but to how they are generally feeling overall.

The results from the GP commissioned users who took part in the EQ-5D-L questionnaire have shown: Between their first session and their follow up session there has been a small change of improvement in their index values.

The EQ 5D score improved by .002

MYMOP Results for GP commissioned patients

The same MYMOP questionnaire that self referring users filled in were then completed by GP commissioned patients. Data spreadsheet annexe 9 and 10.

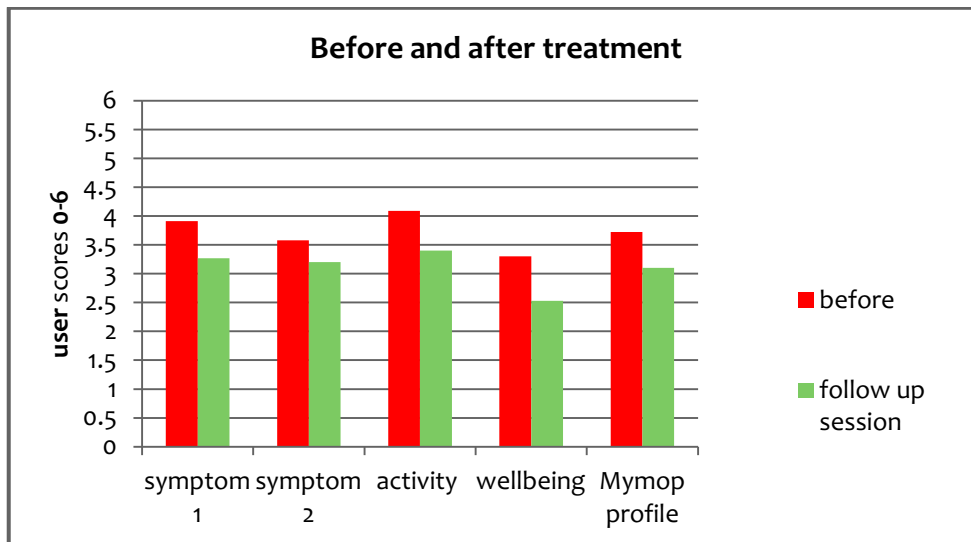
The following charts and grids show the results of this questionnaire. (N=33)

	Number	Percent
Female	26	79 %
Male	7	21 %
Gender not reported	0	0 %
Duration of health problem		
4 -12 weeks	2	6 %
3-12 months	16	48 %
1-5 years	9	28 %
Over 5 years	6	18 %

MYMOP scores	Before treatment N=33	At follow-up N=30	Change in score	
	Mean (SD)	Mean (SD)	Mean (SD)	95% confidence interval
Symptom 1	3.91 (1.23)	3.27 (1.23)	0.60(1.30)	0.16 1.04
Symptom 2	3.58 (1.70)	3.20 (1.69)	0.30 (0.88)	0.00 0.60
Activity	4.09(1.44)	3.40 (1.43)	0.67 (1.42)	0.19 1.15
Well being	3.30 (1.70)	2.53(1.76)	0.80 (1.77)	0.20 1.40
MYMOP Profile	3.72 (1.23)	3.10 (1.25)	0.59 (0.90)	0.28 0.90

Scale: 0 = "as good as it can be" to 6 = "as bad as it could be average age 52 years old

MYMOP chart showing before and after treatment of 2 sessions for commissioned users



MYMOP scored 0-6, with lower scores = better health

As with the self referring users it can be clearly seen from the data collected from the patients that they feel that they have improved over their two symptoms, and their chosen activity and well being.

The MYMOP profile score represents the overall experience for the patient. As shown, this score was lower after treatment, indicating success with the treatment.

The 80% who said they had improved following their two hydrotherapy sessions did so by an average of 0.90.

The 13% who said they felt worse did so by 0.95

7% of the sample said they were unchanged

After the project ended, the hydropool decided to continue collecting routine outcome data for GP commissioned patients by using MYMOP-and EQ-5D-L.

Peterborough City Council Health and Wellbeing Strategy 2012-2015

The Health and Wellbeing Strategy 2012-2015 to be delivered by health commissioner in the Local and Clinical Commissioning Groups and Peterborough City Council want to ***translate their aspirations and needs into services that:***

- ***Deliver the best possible health and well being outcomes, including promoting equality***
- ***Provide the best possible health and social care provision and***
- ***Achieve this with the best use of available resources***

Hydrotherapy can provide a service to meet these targets and this report and the feedback from users and their carers demonstrates the impact to reflect that.

St George's hydrotherapy pool is a popular, in-demand and well supported provision that improves the lives, health and wellbeing for users and carers. It is a preventative provision as well as a valuable means of recovery – delivered directly in line with the key aims and objectives of the strategy.

Hydrotherapy has the rare advantage of being able to deliver benefits to all of Peterborough City Council's public health, education and social care services - contributing to the improvement- *direct use of integrated health and social care solutions.*

Hydrotherapy shows a greater delivery of innovative, forward thinking and proactive – not reactive – provision.

Will have a positive preventative effect through promoting timely intervention

By recognising conditions and illnesses and well being targets – and focusing on preventative and rehabilitation services – hydrotherapy demonstrates an effective way to deploy services- *a single provision meeting a range of needs- proving the best possible health and social care provision.*

The strategy protects and gives due regard to the health and wellbeing needs of disadvantaged groups specified with the Equalities Act 2010 – and the database demographics and city council ward access shows it to be a service that is accessed by all protected groups in the city.

Key facts

Peterborough has more than the average number of children aged 11 are obese.

The hydro pool can offer privacy to those who may avoid activity in water due to the personal perception of their image – for those with a range of eating disorders (aqua-aerobics groups).

Over 1,400 children and young people ages 0 -17 are in receipt of Disability Living Allowance

Schools with aquatic provision can service limited numbers - many miss out on the provision (and it is not available for holiday periods – in excess of 13 weeks a year). Hydrotherapy is an effective way to treat children with neurological and orthopaedic conditions. It is enjoyed by children because it is fun and gives them a freedom of movement only experienced in a hydrotherapy pool.

Peterborough has a higher than average number of pupils who are determined as having Special Educational Need (SEN)

Family Voice Peterborough (FVP) working collaboratively with LINKs were invited to be involved in discussions with various other agencies about hydrotherapy provision. FVP are aware many benefits exist for those with SEN ranging from physical freedom to emotional wellbeing. Hydrotherapy has shown that children with autism benefit from being in the warm water, helping them relax enabling them to concentrate better after their session. This also enables them to exercise freely and calmly in the water helping to treat other physical conditions they may have.



St George's hydrotherapy pool can support SEN schools and the council with providing special group sessions with stimulating music, lighting and fun. To encourage and develop movement, communication and social skills.

A grandmother who helps to care for her grandson with hyper mobility syndrome and suspected autism/ Aspergers said; " general fitness, confidence, relaxation and well being/quality of life has greatly improved since attending hydrotherapy. He has also learnt to swim underwater."

Children with Cerebral palsy may find hydrotherapy beneficial as the water supports their body weight, enabling them to enjoy a level of movement and independence which they cannot achieve elsewhere. The resistance of the water can help to strengthen the muscles, and can also reduce muscle spasms.

Peterborough has a growth in the population aged 85+.This frail group need well organised and responsive health and social care services

Hydrotherapy at St Georges can provide vital exercise sessions for our older population. Supporting groups like AGE UK, using gentle exercises in a friendly environment that makes them feel safe and comfortable in sessions of same age users.

A couple in their late 70's have been visiting the pool for the last 18 months. Mr K says: "hydrotherapy has done him the world of good. He no longer has to wear a support belt and does not need to take pain killers anymore. Before visiting the pool Mr K tried sessions with a chiropractor but that did not help. Within two weeks of coming to the pool his condition improved". The spa has also helped Mr K. he says" It is the best massage you can get, so gentle on your muscles". Before he started to use the pool he could not lift his arms above his head, he can do this easily now.

The water provides fabulous physical support - making users feel safer on their feet, especially if they are unsteady and prone to falls – which in old age is one of the highest reasons for emergency admissions to hospitals i.e. broken hips and bones.

Hydrotherapy is proven to speed recovery in those who have been unfortunate to have suffered a fall and demand from local care homes for the service has increased over the last two years.

As well as the physical benefits it can also offer a social network, as people get older they often find that they are by themselves for the majority of their time.

It may be the one time in the week that they actually get to interact/talk to other people. Being part of a group encourages people to keep active physically and mentally.

If they have someone who cares for them, St Georges could play a part in 'signposting' people to the right help, and create a 'hub' for people who need support from others who may also be carers. Being a carer can be very isolating, exhausting and distressing.

Mr. W. who is in his early 80s has Myelitis⁹ disease which causes injury to the spinal cord with varying degrees of weakness, sensory alterations, and autonomic dysfunction: "I've been visiting the pool now for about four months, it is helping my mobility, in water I can move around supported by the warm water, it has been such a great help. It is also helping me get more confident with doing many things; it makes me mentally feel better too".

Peterborough City Council currently commits substantially more of its gross budget on services for adults with a learning disability than comparator authorities

Feedback has shown greater mobility / less support/ care needed for adults with learning disabilities who use hydrotherapy. Feedback from carers note that there is a freedom once in the water that allows people to be able to express themselves easier and have better mobility in the water.

They say that if someone has been restless, frustrated, not being able to express themselves verbally, angry or general 'out of sorts' before their session, once they have gone into the warm water, being able to just relax, or be stimulated by the sensory lights and music has a very positive calming effect. This has led to better response to socialising, learning and behaviour.

1 ⁹ [Transverse Myelitis Society, UK](http://www.myelitis.org.uk/)
www.myelitis.org.uk/

Peterborough has a higher than average number of obese and those low in terms of physical activity (a quarter of adults are estimated to be obese)

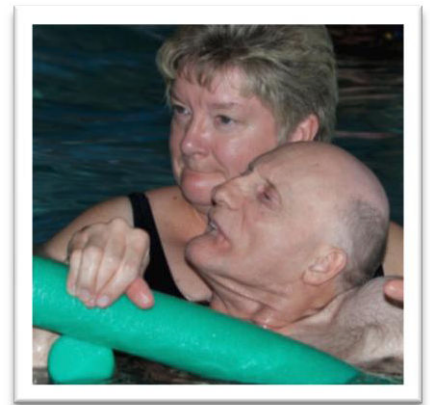
The hydro pool is open to people in the community who would like to have privacy because of having personal body image issues, either being overweight or being under weight /anorexic.

Anonymous user said "I was advised by my consultant to come to the hydrotherapy pool to help to control my weight which in turn will help with my condition. I can come to 'quiet, small sessions' as I find being in public difficult"

Offering availability to target groups, male /female only, ethnic groups the hydrotherapy pool offers provision not available anywhere else locally.

The provision can be used by the education sector in collaboration with other activities to tackle those at risk or with obesity e.g. having regular aqua aerobics for 11- 15 yrs in small groups etc

Dementia – it is estimated that 20% of the over 80's will be affected. As this age group increase- so will be demands and effects of this most serious illness have on carers and local services



Hydrotherapy sessions can support people with dementia and their carers by providing sessions by having fun, creating social interaction and stimulation and expression of enjoyment.

In 2002 Alzheimer's Society awarded a hydrotherapy project an Excellence in Dementia Care Nursing Award¹⁰.

Senior Policy Officer Martina Kane from the Alzheimer's Society said *There are well understood benefits of physical activity to people with dementia, such as being engaged, increased social contact, exercise, and releasing energy. There is some anecdotal evidence about the benefits of swimming and water for people with dementia especially around difficult behaviour (aggression and agitation). This is probably due the combination of exercise, activity, calming environment etc rather than to one factor in particular.*

Penny Smith, author of the Waterworks Project Report in Cornwall¹¹ worked in a specialist dementia unit in a nursing home. She, along with the support of others, used a local hydrotherapy pool to support a number of residents. She reported; **" it creates positive changes in mood, communication skills and agitation for the residents. It shows much enjoyment is gained from these sessions"**

¹⁰ ; <http://www.careinfo.org/a-passport-back-to-youth-strength-and-independence/>

¹¹ Penny Smith waterworks project-

St George's can offer a facility that can accommodate sessions to offer support to those with dementia and their carers in the local community.

Peterborough have a higher than average hip fractures

Hydrotherapy can be used wisely to help those after surgical intervention if commodities allows.

Falls Assist UK: "***exercise designed to improve strength and balance and co-ordination (& safety changes at home) can lead to a reduction in falls***"¹². Hydrotherapy could provide almost risk-free exercise for this group.

Physiotherapy supported hydrotherapy for hip fractures and other musculoskeletal injuries

- Shorten recovery time
- Faster return to work
- Less pain medication
- GP attendance
- Complication/corrective surgery

Hydrotherapy user attends Guys and St Thomas' Hospitals for various conditions including congenital dislocation in her hip with secondary osteoarthritis problems. ***"I consider (hydrotherapy) to be essential for her care...I cannot stress too highly the importance of her need to continue to receive hydrotherapy on a regular ongoing basis..."*** Professor R. Grahame CBE MD FRCP FACP Emeritus Professor of clinical Rheumatology supporting her use of hydrotherapy to control her conditions and pain to the PCT and her GP.

Stroke

Strokes affects more than 300 people in Peterborough annually. Hydrotherapy can benefit stroke survivors by improving their functional movement and well-being. Charles Ryan, Improvement Development Manager for Long Term Conditions said: ***"These services will make a real difference to people with stroke, their families and carers. Stroke can have a devastating and lasting impact on people's lives and individuals often live with the effects for the rest of their lives."***

That's why it's important that patients, families and carers have access to and receive good quality rehabilitation services delivered by skilled professionals, as this will enhance long-term recovery and reduce long-term disability. We want to give patients access to quality services delivered in the local community, and to ensure these services are co-ordinated between different service providers for the benefit of patients.¹³

¹² Only Peterborough magazine –March 2012.

¹³ Peterborough NHS- Improvements on the way for community stroke services in Peterborough

Working together...

Brian Tyler Disability Forum Manager and founder of DIAL Sport has been an active supporter of the hydrotherapy pool since the re-launch. Brian has ensured the provision is widely know about by his service user groups through publicity and will signpost organisations and individuals to the pool.

Local councillors from many of the wards across Peterborough have helped promote the hydrotherapy pool within their wards and also very kindly donated from their Community Leadership Funds (CLF). These funds enable elected members to support projects that will have a positive impact on communities within their wards.

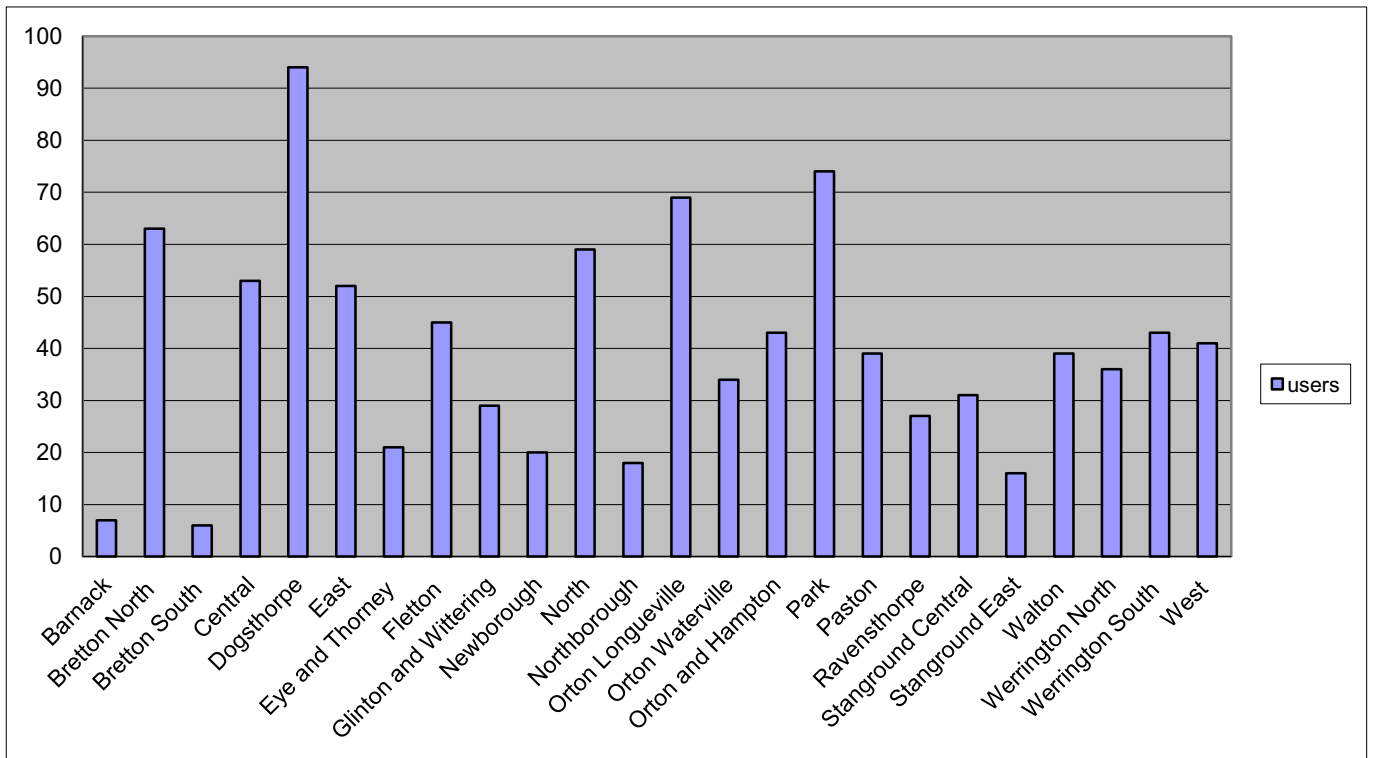
The hydrotherapy pool has been well supported by a great deal of statutory and voluntary organisations and many other local businesses and groups.

Volunteers administer and design the website, produce the newsletter, assist in fundraising and provide front of house services. They also have volunteer physiotherapists providing clinical guidance to users.

The 'Friends of St George's hydrotherapy pool' fundraise to provide users with additional equipment.



Hydrotherapy users by ward (latest figures March 2013)



This demonstrates that the facility has been accessed by residents in all wards of Peterborough City. At the time of publishing this report - March 2013 - there were 1400 users on the database. Including:

- 8 care homes
- 2 day centres
- 6 schools and/or nurseries

Final summary

Between July and December 2012 Sam Ring carried out, with a range of research methods, a comprehensive case for the use of St George's Community Hydrotherapy Pool as a provider of aquatic physiotherapy to improve the lives, health and wellbeing of patients, users and carers and demonstrate it by supported evidence of patient experience reports and feedback.

The research was carried out at the hydrotherapy pool in Dogsthorpe, Peterborough. Users were engaged with throughout the project and updated on progress and outcome/s. Evidence and commentary was gathered by users attending their regular sessions whether through self-referring or GP referred.

Data was collected using MYMOP, EQ-5D-L questionnaires, the St. George's evaluation form and oral testimony and feedback. Further soft intelligence was gathered from the provided anonymous comments box.

Sam had the opportunity to spend valuable time and resources talking to users and carers to help her to compile case studies, obtain quotes and valuable constructive user experiences.

The study provides sound evidence that measurable improvement in the quality of everyday living may be obtained by users with various conditions by using hydrotherapy. Evidence shows that it can be of benefit for users who have chronic and progressive conditions showing it as an effective way of controlling pain and increasing mobility.

The majority of the existing users have shown great improvement right across the 15 target areas evaluated. The results from new users have also been very encouraging, showing a similar trend.

The report provides positive evidence that hydrotherapy provides a cost effective provision to both the NHS and social care services - covering many important aspects, including reducing GP visits, reduction in emergency hospital admissions and medication reduction and in preventing conditions worsening.

Continued commissioning and referrals for this service would show that the emerging surrounding Clinical Commissioning Groups (and the Local Commissioning Groups); Peterborough City Council; the primary and secondary sector recognise the tangible and evident health and social care benefits that hydrotherapy provide to the residents of Peterborough and surrounding areas.

* People in the community should to have access to a facility that is proving to be an essential part of the patient pathway to recovery and wellbeing.

* The delivery of hydrotherapy as a health and wellbeing provision is directly in line with the key aims and objectives of the health and wellbeing strategy 2012-2015.

* The provision of this service will help in improving quality of life for many people. Aquatic therapy can help to stabilise or improve many life-long conditions.

Enhancing opportunities for independent living for people with life- long disabilities and complex needs¹⁴.

After completion of the research, having spent six months at St George's, Sam Ring has been so impressed with the impact the service has brought to such a range of vulnerable people, the ethos of the pool and the belief in the need for such a service, she has become a trustee of 'The friends of St George's hydrotherapy pool'.

¹⁴ Health and wellbeing Strategy 2012-2015.NHSPeterborough

Appendix

1. The principles and benefits of Aquatic Environment for rehabilitation
2. Example VAS questionnaire example MYMOP questionnaire
3. Example MYMOP questionnaire
4. Example St George's evaluation form
5. EQ-5D-L self referring data spreadsheet session 1
6. EQ-5D-L self referring data spreadsheet session 3
7. MYMOP publications
8. MYMOP self referring data spreadsheet session 1
9. MYMOP self referring data spreadsheet session 3
10. GP commissioned MYMOP data spreadsheet session 1
11. GP commissioned MYMOP data spreadsheet follow up
12. GP commissioned EQ-5D-data spreadsheet session 1
13. GP commissioned EQ-5D-L data spreadsheet session 3
14. Example EQ-5D-L questionnaire
15. Latest data results from MYMOP and Eq-5D-5L

The principles and benefits of Aquatic Environment for rehabilitation supplied by Pat Baker- physiotherapist

Principles and Benefits of Aquatic Environment for Rehabilitation

Usually when you are up to your neck in something you're in trouble, but research shows that being up to your neck in water may be just what you need. Dr. Bruce E. Becker, who has published, taught, and researched extensively on aquatics, wrote an article titled "Considering the Biologic Aspects of Water" which was published in April 1995 in *Advance for Directors in Rehabilitation*. His article included the latest information and research on the physiological changes that occur when the body is immersed in water. The following points are summarized from Dr. Becker's article to provide you the benefit of his observations.

Although water is the oldest rehabilitation modality, few understand the magnitude, variety, and rapidity of its healing effects. Yet much research over the centuries validates these effects, and recent research adds further understanding: The aquatic environment produces physiologic changes that help remove metabolic waste, improve cardiac function, lower blood pressure, and assist the body in tissue healing.

In regard to the circulatory system, Dr. Becker stated that: "Immediately after a person is immersed, water begins to exert pressure on the body... Central venous pressure rises with immersion to the chest and increases until the body is completely immersed... Cardiac volume increases by nearly one-third with immersion to the neck... Since the ultimate purpose of the heart is to pump blood, its measure of performance is the amount of blood pumped per unit of time." This is called cardiac output and "submersion in water to the neck depth increases cardiac output, 32% at rest." "Therefore the claim that water exercise is not aerobically efficient is faulty. In fact, it may be the ideal cardiovascular conditioning medium."

"Like the circulatory system, the pulmonary system is profoundly affected by immersing the body to the thorax. Part of the effect is due to blood shifting into the chest cavity, and part is due to compression of the chest wall. The combined effect alters pulmonary function, increases the work of breathing, and changes respiratory dynamics. In fact, expiratory reserve volumes decrease by 75 percent at neck immersion, with vital capacity decreasing only slightly... The combined effects of these changes increase the total work of breathing by 60 percent. Thus for an athlete used to land-based exercise, water-based exercise is a significant workload challenge to the respiratory apparatus. If water training time is sufficient, this challenge can improve the respiratory system's efficiency."

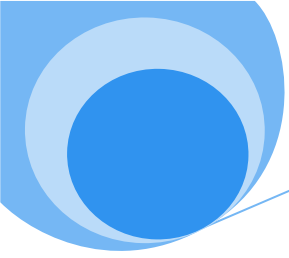
"Water immersion positively affects the musculo-skeletal system as well, particularly with vasoconstriction. On land, for instance, sympathetic vasoconstriction tightens the resistance vessels of the skeletal muscle to resist blood pooling. But in water, immersion pressure removes the biologic need for vasoconstriction, thus increasing muscle blood flow. In fact, resting muscle blood flow increases by 225 percent during neck immersion"

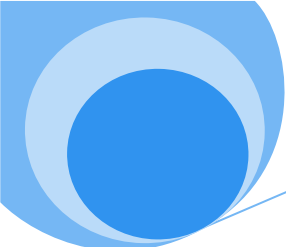
"Aquatic immersion creates many effects upon renal blood flow and the renal regulatory systems. For instance, the flow of blood to the kidneys increases immediately upon immersion, which produces an increase in urine production, as well as sodium and potassium excretion. Sodium excretion also increases as a function of depth due to the shifting of circulating central blood volume."

Immersion up to the neck during deep water running is often utilized for its conditioning effect." Although some controversy exists about the optimal training program for athletes who need joint off-loading during a recovery period, it is known that aquatic exercise can indeed increase conditioning in that population. In fact, water running equals land running in its effect upon maintaining VO₂ max. When training intensities and frequencies are matched."

"Similarly, when aquatic exercise is compared with land-based equivalent exercise in its effect upon maximum gains in VO₂ in unfit individuals, aquatic exercise achieves equivalent results."

"Water-based exercise programs may be used to sustain or increase aerobic conditioning in athletes who need joint offloading... Studies, have shown excellent cross-over benefits."



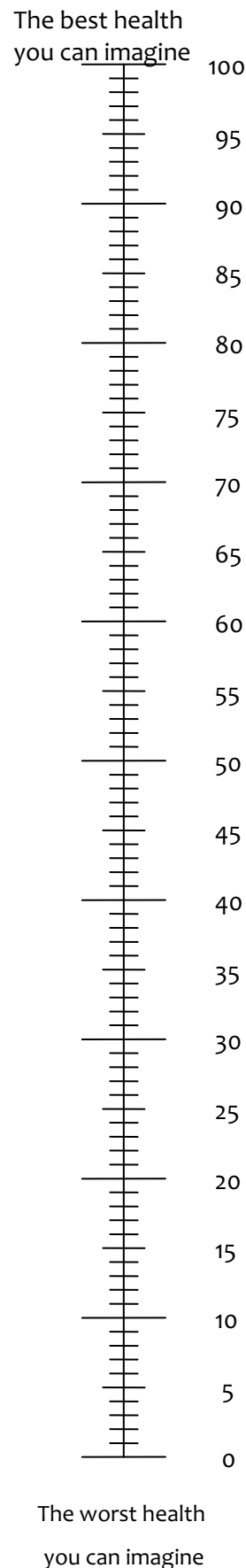


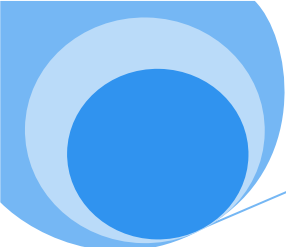
ANNEXE 2

Copy of EQ VAS form

- We would like to know how good or bad your health is TODAY.
- This scale is numbered from 0 to 100.
- 100 means the best health you can imagine.
0 means the worst health you can imagine.
- Mark an X on the scale to indicate how your health is TODAY.
- Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY =





COPY OF MYMOP FORM

* MYMOP2 *

Full name Date of birth

Address and postcode

Today's date Practitioner seen

Choose one or two symptoms (physical or mental) which bother you the most. Write them on the lines.
Now consider how bad each symptom is, over the last week, and score it by circling your chosen number.

SYMPTOM 1: 0 1 2 3 4 5 6
 As good as it could be As bad as it could be

SYMPTOM 2: 0 1 2 3 4 5 6
 As good as it could be As bad as it could be

Now choose one activity (physical, social or mental) that is important to you, and that your problem makes difficult or prevents you doing. Score how bad it has been in the last week.

ACTIVITY: 0 1 2 3 4 5 6
 As good as it could be As bad as it could be

Lastly how would you rate your general feeling of wellbeing during the last week?

..... 0 1 2 3 4 5 6
 As good as it could be As bad as it could be

How long have you had Symptom 1, either all the time or on and off? Please circle:
 0 - 4 weeks 4 - 12 weeks 3 months - 1 year 1 - 5 years over 5 years

Are you taking any medication FOR THIS PROBLEM? Please circle: YES/NO

IF YES:

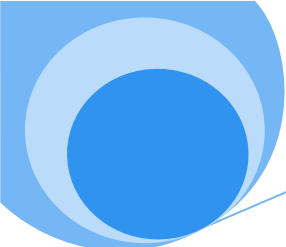
1. Please write in name of medication, and how much a day/week

2. Is cutting down this medication: Please circle:
 Not important a bit important very important not applicable

IF NO:

Is avoiding medication for this problem:
 Not important a bit important very important not applicable

MYMOP, Measure Yourself Medical Outcome Profile



St George's Hydrotherapy Evaluation Form

Name: _____

Address: _____

Email Address: _____

Phone No: _____ Mobile: _____

Today's date: ___/___/___

How long have you used the pool? _____

How regularly do you use the pool? *(Please tick below)*

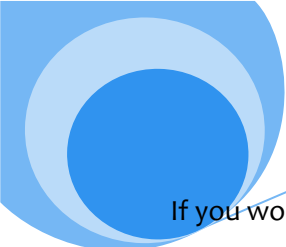
Three times a week Twice a week Once a week Only occasionally Until recovered

	0	1	2	3	N/A – Don't know
Pain					
Mobility					
Range of joint movement					
Muscle strength					
Muscle spasms					
Balance and co-ordination					
Circulation					
Energy levels					
General fitness					
Self-confidence					
Relaxation					
Sleeping pattern					
Wellbeing/quality of life					
Has it allowed you to lower your medication intake?					
Has it allowed you to reduce your visits to the GP?					

We would be very grateful if you could help us by completing the following table

0 = No improvement 1 = Slight improvement 2 = Improvement 3 = Great improvement

Please mark on a scale of 0-3 how much hydrotherapy has improved your:



If you would like to tell us anything more about your experience of using hydrotherapy, please **use the box below.**

Thank you so much for making the effort and taking the time to complete this. We do appreciate it. We will use this data to evaluate the effectiveness of hydrotherapy as a medical treatment.

And finally...

Would you recommend St George's Community Hydrotherapy Pool? (Please tick box)

Yes

No

Maybe

Don't know

On a scale of 1-5, how would you rate your experience at St George's Community Hydrotherapy Pool? (Please circle)

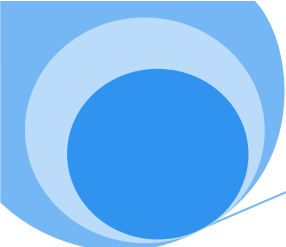
Very Poor	Poor	Average	Good	Excellent
1	2	3	4	5

Please return your completed form to Sam Ring or Kasia Chiva at:

St George's Community Hydrotherapy Pool
367 Dogsthorpe Road
Peterborough
PE1 3RE

Alternatively, you can attach and send it by email for the attention of Sam or Kasia at:

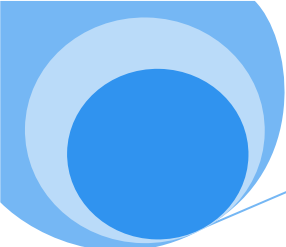
stgeorghydrotherapypool@peterborough.gov.uk



EQ-5D-L. self referring data spreadsheet

session 1

Mobility	Self care	Usual activities	Pain / Discomfort	Anxiety / Depression	State	EQ VAS
1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No pain 2= Slight 3= Moderate 4= Severe 5= Extreme 9= Missing value	1=Not anxious 2= Slightly 3= Moderately 4= Severely 5= Extremely 9= Missing value		
3	2	4	3	1	32431	75
2	1	2	4	2	21242	35
5	3	5	4	3	53543	20
3	1	3	4	2	31342	70
3	3	4	4	1	33441	50
2	1	2	4	1	21241	45
2	3	3	4	4	23344	72
3	2	3	3	2	32332	47
2	3	3	4	4	23344	72
3	1	5	4	1	31541	70
1	1	2	3	1	11231	70
3	3	4	4	1	33441	40
1	2	2	2	1	12221	72
1	1	1	3	2	11132	50
2	1	1	3	1	21131	100
3	1	1	3	1	31131	85
3	1	2	1	1	31211	40
4	2	3	3	1	42331	60
2	1	2	3	1	21231	62
2	1	4	2	1	21421	77.5
4	1	5	4	1	41541	35
2	1	3	3	1	21331	45
3	1	1	3	1	31131	50
3	1	3	3	2	31332	60
2	3	5	3	1	23531	40
1	1	2	2	2	11222	80
2	1	1	1	2	21112	70
4	3	4	4	2	43442	50
3	2	2	3	1	32231	55
1	2	3	4	3	12343	70
4	3	3	4	1	43341	35
4	1	4	4	1	41441	20
4	3	4	4	3	43443	50
						56.74242



EQ-5D-L self referring session 3 data spreadsheet

Mobility	Self care	Usual activities	Pain / Discomfort	Anxiety / Depression	State	EQ VAS	Change + or -
1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No pain 2= Slight 3= Moderate 4= Severe 5= Extreme 9= Missing value	1=Not anxious 2= Slighty 3= Moderately 4= Severely 5= Extremely 9= Missing value			
3	2	2	2	1	32221	85	10
							-35
							-20
3	1	2	2	1	31221	70	0
							-50
							-45
2	2	3	4	3	22343	70	-2
2	2	3	3	2	22332	3	-44
							-72
4	1	3	5	1	41351	75	5
3	3	3	3	1	33331	70	0
3	2	4	4	1	32441	45	5
1	2	2	2	1	12221	78	6
							-50
							-100
3	1	2	3	1	31231	60	-25
3	1	3	2	1	31321	55	15
4	2	4	3	1	42431	75	15
2	1	2	2	1	21221	68	6
2	2	3	3	1	22331	85	7.5
3	1	5	3	1	31531	40	5
3	1	2	2	3	31223	48	3
							-50
							-60
2	3	3	3	2	23332	35	-5
1	1	2	3	2	11232	80	0
							-70
							-50
3	3	3	3	1	3331	43	-12
							-70
							-35
							-20
							-50
						60.27778	-787.5

MYMOP Publications

Short list of publications describing evaluations of, or use of, MYMOP.

1. Chapman R, Norton R, Paterson C. A descriptive outcome study of 291 acupuncture patients. *The European Journal of Oriental Medicine* 2001;48-53.
2. Hill S, Eckett MJH, Paterson C, Harkness EF. A pilot study to evaluate the effects of floatation spa treatment on patients with osteoarthritis. *Complementary Therapies in Medicine* 1999;7:235-8.
3. Paterson C. Measuring outcome in primary care: a patient-generated measure, MYMOP, compared to the SF-36 health survey. *British Medical Journal* 1996;312:1016-20.

Available online

4. Paterson C. Complementary practitioners as part of the primary health care team: consulting patterns, patient characteristics and patient outcomes. *Family Practice* 1997;14:347-54.
5. Paterson C, Britten N. In pursuit of patient-centred outcomes: a qualitative evaluation of MYMOP, Measure Yourself Medical Outcome Profile. *J Health Serv Res Policy* 2000;5:27-36.
6. Paterson C, Langan CE, Mckaig GA, Anderson PM, Maclaine GDH, Rose LH. Assessing patient outcomes in acute exacerbations of chronic bronchitis: the measure yourself medical outcome profile (MYMOP), medical outcomes study 6-item general health survey (MOS-6) and EuroQol (EQ-5D). *Quality of Life Research* 2000;9:521-7.
7. Paterson, C. The context, experience and outcome of acupuncture treatment: users' perspectives and outcome questionnaire performance. 2002. University of London. PhD thesis
8. Peace G, Mannasse A. The Cavendish Centre for integrated cancer care: assessment of patients' needs and responses. *Complementary Therapies in Medicine* 2002;10:33-41.
9. Ritchie, J, Wilkinson, J, Gantley, M., Feder, G., Carter, Y., and Formby, J. A model of integrated primary care: anthroposophical medicine. 2001. London, Department of General Practice and Primary Care, St Bartholomew's and the Royal London School of Medicine and Dentistry, Queen Mary, University of London.
10. Paterson C, Britten N. Acupuncture for people with chronic illness: combining qualitative and quantitative outcome assessment. *Journal of Alternative and Complementary Medicine* 2003; 9:671-681
11. Paterson C. Seeking the patient's perspective: a qualitative assessment of EuroQol, COOP-WONCA Charts and MYMOP2. *Quality of Life Research* 2004;13: 871-881
12. Paterson C.(2006) Measuring changes in self-concept: a qualitative evaluation of outcome questionnaires in people having acupuncture for their chronic health problems.

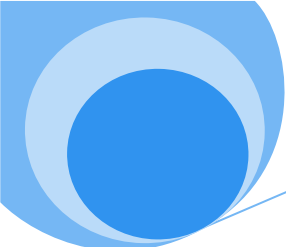
¹ Guyatt GH, Juniper EF, Walter S, Griffith L, Goldstein RS. Interpreting treatment effects in randomised trials. *British Medical Journal* 1998;316:690-693.]

¹ MYMOP - Faqs sites.pcmd.ac.uk/mymop/index.php?c=faqs

MYMOP Self referring Session 1

Annexe 8

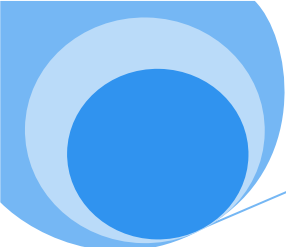
SESSION 1								
Research ID	Age	Sex	Duration of problem	Symptom1 at Time 1	Symptom 2 at Time 1	Activity at Time 1	Welbeing at Time 1	MYMOP profile at time 1
1 MR	73	M	3M-1YR	3	3	5	0	2.75
2 SL	41	F	5 YRS	4	4	4	5	4.25
3 HW	50	F	1-5 YRS	6	6	6	5	5.75
4 JH	72	F	1-5YRS	3		3	3	3.00
6 MM	73	F	5 YRS	5	5	3	2	3.75
7 WC	50	F	5 YRS	4	3	3	4	3.50
8 SB	27	M	5 YRS	4		6	4	4.67
9 KC	28	F	3M-1YR	4	4	4	3	3.75
10 SP	62	F	1-5 YRS	5	6	4	1	4.00
11 LC	65	F	5 YRS	3	3	5	3	3.50
12 SC	54	F	5 YRS	4	5	5	5	4.75
13 JR	52	M	4-12WKS	3	3	2	0	2.00
14 SJ	54	F	5 YRS	5	4	5	4	4.50
15 OS	68	F	5 YRS	2		3	1	2.00
16 MB	58	F	1-5 YRS	3	3	3	3	3.00
								#DIV/0!
17 PP		F	1-5 YRS	5	3	5	2	3.75
18 MH	58	F	5 YRS	4	3	5	1	5.29
19 JH	35	M	3M-1Y	2	5	4	3	3.50
20 PH	60	M	3M-1Y	4	3	4	2	3.25
21 GG	60	F	3M-1Y	5	3	5	3	4.00
22 KW	26	F	5 YRS	3	5	5	4	4.25
23 MC	83	F	5 YRS	4		3	1	2.67
24 MB	40	F	5 YRS	3	3	3	3	3.00
25 AW	54	F	5 YRS	4	2	3	3	3.00
26 SR	38	F	3M-1Y	4		4	5	4.33
27 RW	29	F	1-5 YRS	5	2	5	1	3.25
28 JM	59	F	5 YRS	0	6	5		3.67
29 ST	61	F	5 YRS	4	5	3	3	3.75
30 CS	41	M	1-5 YRS	4	5	6	5	5.00
31 JB	60	F	4-12WKS	5	4	4	2	3.75
32 DT	40	M	1-5 YRS	5	3	6	5	4.75
Number of clients				31	26	31	30	29.50
Averages				3.8387097	3.8846154	4.225806	2.866667	3.70



MYMOP Self referring -Session 3

Annexe 9

FOLLOW UP SESSION 3										
Symptom1 at Time 2	Symptom2 at Time 2	Activity at Time 2	Wellbeing at Time 2	MYMOP Profile at time 2	Change in symptom 1	Change in symptom2	Change in activity	Change in wellbeing	Change in profile score	Symptom 3
1	2	2	2	1.75	-2	-1	-3	2	-1	
				#DIV/0!	-4	-4	-4	-5	#DIV/0!	
				#DIV/0!	-6	-6	-6	-5	#DIV/0!	
3		3	3	3.00	0	0	0	0	0	
				#DIV/0!	-5	-5	-3	-2	#DIV/0!	
1	3	2	2	2.00	-3	0	-1	-2	-1.5	
5		6	2	4.33	1	0	0	-2	-0.33333	
				#DIV/0!	-4	-4	-4	-3	#DIV/0!	
6	5	5	4	5.00	1	-1	1	3	1	
3	3	3	1	2.50	0	0	-2	-2	-1	
4	5	5	4	4.50	0	0	0	-1	-0.25	
3	3	2	0	2.00	0	0	0	0	0	
				#DIV/0!	-5	-4	-5	-4	#DIV/0!	
				#DIV/0!	-2	0	-3	-1	#DIV/0!	
3	3	3	3	3.00	0	0	0	0	0	
				#DIV/0!	0	0	0	0	#DIV/0!	
4	3	4	2	3.25	-1	0	-1	0	-0.5	
4	3	4	3	3.50	0	0	-1	2	-1.78947	
1	2	2	4	2.25	-1	-3	-2	1	-1.25	
2	2	2	2	2.00	-2	-1	-2	0	-1.25	
5	3	5	4	4.25	0	0	0	1	0.25	
4	4	5	4	4.25	1	-1	0	0	0	
				#DIV/0!	-4	0	-3	-1	#DIV/0!	
				#DIV/0!	-3	-3	-3	-3	#DIV/0!	
4	1	3	3	2.75	0	-1	0	0	-0.25	
4		4	2	3.33	0	0	0	-3	-1	
				#DIV/0!	-5	-2	-5	-1	#DIV/0!	
				#DIV/0!	0	-6	-5	0	#DIV/0!	
3	4	3	3	3.25	-1	-1	0	0	-0.5	
				#DIV/0!	-4	-5	-6	-5	#DIV/0!	
				#DIV/0!	-5	-4	-4	-2	#DIV/0!	
				#DIV/0!	-5	-3	-6	-5	#DIV/0!	
18	15	18	18	17.25	-13	-11	-13	-12	-12.25	
3.3333333	3.0666667	3.5	2.666667	3.14	-0.505376	-0.817949	-0.72581	-0.2	-0.56228	



GP commissioned MYMOP session 1

Annexe 10

Age	Sex	Duration of problem	Symptom1 at Time 1	Symptom 2 at Time 1	Activity at Time 1	Welbeing at Time 1	MYMOP profile at time 1
26	F	3mnths - 1	4	4	6	4	4.5
62	F	3mnths - 1	5	0	6	5	4
82	F	1 - 5 yrs	3	4	4	3	3.5
60	F	1 - 5 yrs	3	4	1	6	3.5
60	M	3mnths - 1yr	4	4	5	4	4.25
62	F	over 5yrs	3	3	5	4	3.75
34	F	1 - 5 yrs	4	5	3	2	3.5
69	F	1 - 5 yrs	4	4	5	1	3.5
40	F	3mnth - 1yr	3	2	3	2	2.5
49	F	3month - 1	4	6	5	5	5
77	M	3mnths - 1	2	2	1	1	1.5
44	F	3mnths - 1	4	4	5	4	4.25
12	F	4 - 12wks	5	6	6	5	5.5
44	F	1 - 5yrs	4	4	4	3	3.75
62	M	over 5yrs	5	5	5	5	5
60	M	3mnths - 1	2	2	3	2	2.25
50	F	5 yrs +	5	3	4	4	4
51	F	3mnths - 1yr	2	4	2	0	2
62	F	3mnth - 1	5	5	5	5	5
52	F	3mnths - 1yr	6	6	6	6	6
14	M	1 - 5 yrs	5	4	3	5	4.25
48	F	3mnths - 1yr	5	3	5	3	4
56	F	1 - 5yrs	1	0	1	0	0.5
63	F	4 - 12wks	5	0	3	1	2.25
68	F	3mnths - 1yr	5	6	6	5	5.5
55	F	Over 5yrs	4	3	4	4	3.75
76	M	1 - 5yrs	4	3	3	3	3.25
38	F	1 - 5 yrs	6	6	5	5	5.5
40	M	5yrs +	2	1	4	2	2.25
56	F	over 5yrs	3	4	5	3	3.75
24	F	3mnths - 1yr	4	4	4	4	4
45	F	3mnths -1yr	3	3	4	2	3
72	F	3mnths - 1yr	5	4	4	1	3.5
		MEAN	3.91	3.58	4.09	3.30	3.72
		STDEV	1.23	1.70	1.44	1.70	1.23

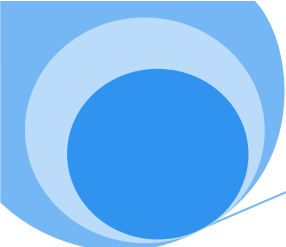
FOLLOW-UP					CHANGE					
Symptom1 at Time 2	Symptom2 at Time 2	Activity at Time 2	Wellbeing at Time 2	MYMOP Profile at time 2	Change in symptom 1	Change in symptom2	Change in activity	Change in wellbeing	Change in profile score	
2	4	3	0	2.25	-2	0	-3	-4	-2.25	
4	0	3	5	3	-1	0	-3	0	-1	
1	3	2	3	2.25	-2	-1	-2	0	-1.25	
4	3	3	4	3.5	-1	-1	2	-2	0	
3	2	3	3	2.75	-1	-2	-2	-1	-1.5	
4	4	6	5	4.75	1	1	1	1	1	
3	3	2	3	2.75	-1	-2	-1	1	-0.75	
4	3	4	1	3	0	-1	-1	0	-0.5	
2	3	2	2	2.25	-1	1	-1	0	-0.25	
4	6	6	5	5.25	0	0	1	0	0.25	
0	1	1	1	0.75	-2	-1	0	0	-0.75	
4	4	4	4	4	0	0	-1	0	-0.25	
6	6	5	1	4.5	1	0	-1	-4	-1	
5	5	5	6	5.25	1	1	1	3	1.5	
5	3	5	4	4.25	0	-2	0	-1	-0.75	
1	3	3	2	2.25	-1	1	0	0	0	
4	2	4	2	3	-1	-1	0	-2	-1	
6	5	6	6	5.75	1	0	1	1	0.75	
4	4	3	4	3.75	-1	0	0	-1	-0.5	
3	0	3	1	1.75	2	0	2	1	1.25	
1	0	1	1	0.75	-4	0	-2	0	-1.5	
4	6	3	2	3.75	-1	0	-3	-3	-1.75	
4	3	4	3	3.5	0	0	0	-1	-0.25	
2	3	3	0	2	-2	0	0	-3	-1.25	
5	6	5	0	4	-1	0	0	-5	-1.5	
3	2	1	2	2	1	1	-3	0	-0.25	
1	3	4	1	2.25	-2	-1	-1	-2	-1.5	
3	4	2	2	2.75	-1	0	-2	-2	-1.25	
3	2	3	1	2.25	0	-1	-1	-1	-0.75	
3	3	3	2	2.75	-2	-1	-1	1	-0.75	
3.27	3.20	3.40	2.53	3.10	-0.60	-0.30	-0.67	-0.80	-0.59	
1.51	1.69	1.43	1.76	1.25	1.30	0.88	1.42	1.77	0.90	

30

GP commissioned EQ-5D-L session1

Research ID	Mobility	Self care	Usual activities	Pain / Discomfort	Anxiety / Depression	State	Result
	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No problems 2= Slight 3= Moderate 4= Severe 5= Unable to 9= Missing value	1=No pain 2= Slight 3= Moderate 4= Severe 5= Extreme 9= Missing value	1=Not anxious 2= Slightly 3= Moderately 4= Severely 5= Extremely 9= Missing value		
2012/002	1	3	3	3	4	13334	0.372
2012/003	4	2	3	3	3	42333	0.496
2012/004	3	3	3	3	1	33331	0.587
2012/005	2	1	3	2	4	21324	0.444
2012/006	3	1	2	2	2	31222	0.666
2012/007	3	3	3	3	3	33333	0.516
2012/008	2	1	2	3	1	21231	0.71
2012/009	4	2	3	3	1	42331	0.567
2012/010	3	1	2	2	1	31221	0.723
2012/011	1	2	5	3	1	12531	0.346
2012/012	2	1	2	2	1	21221	0.735
2012/013	4	3	4	4	3	43443	0.206
2012/016	5	3	4	5	3	53453	-0.28
2012/017	1	1	1	3	2	11132	0.74
2012/018	4	1	4	4	3	41443	0.31
2012/020	4	3	4	4	3	43443	0.206
2012/021	2	2	2	3	2	22232	0.567
2012/022	1	1	2	2	5	11225	0.287
2012/023	1	1	1	1	1	11111	1
2012/024	4	1	4	4	4	41444	0.18
2012/025	4	1	4	4	4	41444	0.18
2012/028	2	1	3	3	1	21331	0.703
2012/032	1	1	2	3	2	11232	0.711
2012/035	1	1	1	1	1	11111	1
2012/040	2	2	2	3	2	22232	0.567
2013/002	3	2	4	3	4	32434	0.256
2013/003	2	1	2	3	1	21231	0.71
2013/004	1	1	1	1	1	11111	1
2013/005	4	3	4	5	4	43454	-0.134
2013/007	2	1	2	3	1	21231	0.71
2013/008	3	2	2	2	1	32221	0.636
2013/012	2	1	3	3	2	21332	0.647
2013/016	3	1	3	3	2	31332	0.635
2013/022	2	1	3	3	1	21331	0.703

Mean	0.520647
Median	0.5375
Standard deviation	0.293194



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Under each heading, please tick the ONE box that best describes your health TODAY

MOBILITY

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

SELF-CARE

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe problems washing or dressing myself
- I am unable to wash or dress myself

USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)

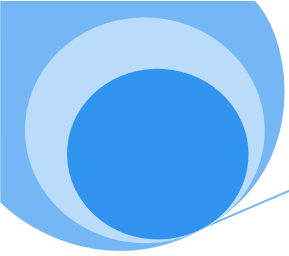
- I have no problems doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

PAIN / DISCOMFORT

- I have no pain or discomfort
- I have slight pain or discomfort
- I have moderate pain or discomfort
- I have severe pain or discomfort
- I have extreme pain or discomfort

ANXIETY / DEPRESSION

- I am not anxious or depressed
- I am slightly anxious or depressed
- I am moderately anxious or depressed
- I am severely anxious or depressed
- I am extremely anxious or depressed



Latest Results Data

Table Showing EQ-5D-5L Results for Commissioned Hydrotherapy Patients

	Before treatment N=56	At follow-up N=46
Mean EQ-Index	0.544 (0.280)	0.530 (0.314)
Median EQ-Index	0.587	0.603

Scale: 1 = full health and 0 = death

Table Showing EQ VAS Results for Commissioned Hydrotherapy Patients

	Before treatment N= 49	At follow-up N=43
Mean EQ VAS (Standard deviation)	58 (28)	65 (24)
Median EQ VAS	60	70

100= "The best health you can imagine"

0= "The worst health you can imagine"

Table Showing MYMOP Results for Commissioned Hydrotherapy Users

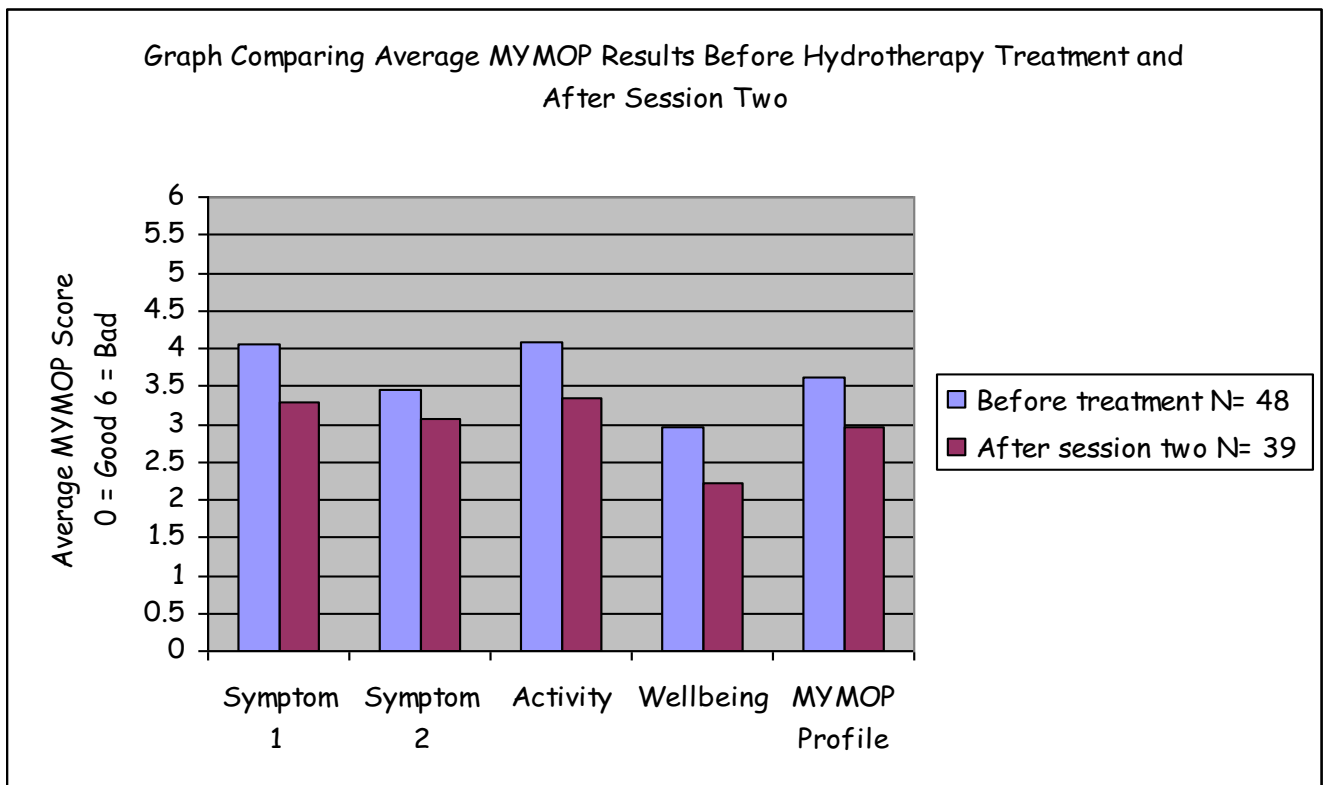
MYMOP scores	Before treatment N=48	At follow-up N=39	Change in score	
	Mean (SD)	Mean (SD)	Mean (SD)	95% confidence interval
Symptom 1	4.02 (1.21)	3.28 (1.62)	0.79 (1.40)	0.39, 1.18
Symptom 2	3.44 (1.76)	3.08 (1.66)	0.41 (1.12)	0.10, 0.72
Activity	4.08 (1.47)	3.33 (1.49)	0.72 (1.38)	0.33, 1.11
Wellbeing	2.96 (1.74)	2.21 (1.76)	0.90 (1.83)	0.38, 1.42
MYMOP profile	3.63 (1.16)	2.97 (1.22)	0.71 (1.00)	0.43, 0.99

Scale: 0 = "as good as it can be" to 6 = "as bad as it could be."

79% of patients had improved. The mean improvement was 1.04.

13% of patients had got worse. The mean was -0.95.

8% remained unchanged



Acknowledgements

Emma Valerio – Community Liaison Co-ordinator John Lewis-Peterborough, and John Lewis 'GJT board' for supporting a local community project, and funding the secondment of Mrs Sam Ring for six months.

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The physiotherapists Pat Baker and Lee Croft for all their help and knowledge

All of the members of SURF (Service User's Rehabilitation Forum)

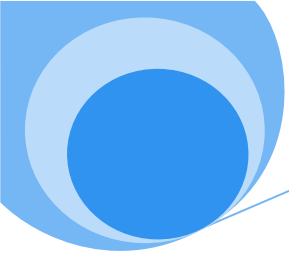
The Management, lifeguards of the hydrotherapy pool–for their expertise

All the users of St.George's hydrotherapy pool-without their input of information and sharing their experiences this would not have been possible

This paper could not have been written without the invaluable help of Karen and Rob Oldale who first raised the issue of lack of hydrotherapy facilities and who are full-time supporters of St George's.

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