UPDATE

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BACPAR

BRITISH ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS IN AMPUTEE REHABILITATION

SPRING 2021 **ISSUE 55**

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MOVING FORWARD

Julia Earle

BACPAR Chair

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CHAIRS MESSAGE SPRING 2021

Since our last journal the world has continued to be a very strange place but I think we are all coming to terms with this and learning to cope with all the new ways of working, even if we do still hanker for better times, holidays, hugs, fine dining, houses full of friends.....

I am so proud of what we are achieving in the NHS, and in physiotherapy, and even as I sit here, I've just had a text with my 2nd vaccination appointment which makes me very happy!

I hope you all enjoyed our virtual conference with the Vascular Societies (I still can't quite get "Annual Scientific Meeting" in my head), despite the technical hiccups, and I am very much looking forward to working with them in 2021 but hopefully face-to-face – dates have been confirmed as 1-3 December in Manchester. Thank you to everyone who made it such a great event, including all the presenters, but especially to Louise Tisdale and Hayley Crane for not only their work with the Vascular Societies in organising it but also their excellent presentations, not just in the BACPAR sessions but to the wider audience in the vascular programme. BACPAR's involvement was very much valued by the Vascular Societies committees and also the attendees, and they are hoping we will make this a regular event. Once we have had a face-to-face event with them, we will need to discuss whether this is the way forward for our BACPAR conferences. It was certainly much easier on the organisational front and we were given great ownership of the BACPAR elements and have been made very welcome overall.

I would also like to say a massive thank you to the Guidelines Working Group, and especially to Rachel Humpherson for leading this. What a great piece of work and as promised will be included with this Journal for your enjoyment. No sooner as this has been produced they are already working on the PPAM Aid and Oedema Guidelines – there's no stopping them!

The other very exciting piece of work that is keeping a few of us very busy is the new BACPAR website development and I am very excited that we will be able to present a very polished online presence by next year. It's not a quick task but considerable steps have already been taken.

Welcome Kim and Midhat to the Exec Committee as Education Officers, it's great to have new faces and thanks to Sue and Adam for continuing. There will be vacancies on the Committee later in the year so you will see an article explaining what the roles are and asking you to consider nominating someone - or volunteering - to stand for election.

I hope to see many of you in the flesh during the coming year at some point.

Julia Earle

BACPAR Chair

WELCOME

EDITORIAL

Welcome to the Spring Edition 2021. It goes without saying we are grateful for the varied and interesting contributions received, all the more so when everyone remains exceptionally busy – and tired – with the challenges that the COVID-19 pandemic continues to present us.

We hope the COVID-19 theme in the Autumn allowed you to appreciate – and relate to – some of the changes to service delivery and to the patient experience. It will be interesting to hear in future editions what some of the longer-term implications of the pandemic are on the experience of people with limb loss and clinicians, and what changes to service delivery become established. As it happens, one of our new additions to this journal, a 'A Day in the Life of…' illustrates new ways of working in one centre.

As well as some regional reports, one from our Research Officers and an introduction to the new BACPAR social media role, you'll have seen from the Contents page there's a good range of reading material. In fact, so much of interest and food for thought that we find ourselves wanting to enthusiastically comment on it all right here and now but would be guilty of taking up too much copy space! We have had to resist. But as editors we have the privilege of effectively reading the journal from cover to cover and we are wiser and humbled for it.

As we hone our editing skills we have tried to introduce a new 'feature' every so often. This time, along with the 'Day in the Life of', there are two further additions or rather, 'corners'. Sue's 'Puzzle Corner' and the 'Article Corner', an idea suggested by Rachel Humpherson BACPAR Guidelines Co-ordinator. Updating the Prosthetic Guidelines (enclosed for you along with your journal) has identified new research, some of which the 'AC' refers to. We've added some questions to spark your thinking and we hope the AC will contribute to department journal clubs and best practice.

Please share your experiences of being a BACPAR member (our personal profile this edition comes from one of our International members), be it for 30 years (as Sue's article 'Happy Birthday DSCs' attests to!), or just one year, we'd love to hear from you. We've received three 'letters' which comment and feedback on ideas prompted by journal content and BACPAR's conference in November. Thank you, keep your views coming!

Best wishes, Mary Jane and Sue, Joint Journal Officers

Mary Jane Cole

Joint Journal Officer

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Sue Lein

Joint Journal Officer

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GUIDANCE NOTES FOR FUTURE SUBMISSIONS:

DEADLINES for the biannual Journals (Spring and Autumn) will be announced via iCSP and our 'BACPAR Members Only' Facebook page

CONTACT the joint Journal Officers Mary Jane Cole and Sue Lein via email: BACPARjournal@gmail.com

WORD COUNT The approximate word for major articles is 2000 or 1500 words if you have the addition of figures and/or, tables, photos and references

PICTURES should be supplied as high resolution (300dpi) jpegs or PDFs as images. They should be emailed as separate files, ideally not already embedded in your text

LAYOUT Include your name (and any co-authors) and work-setting at the top of your article after the title. You may wish to add your job role/ title

TO ACCOMPANY YOUR SUBMSSION you will need to return a completed Article Submission Form and Image Consent Form (if applicable)

A MESSAGE FROM THE BACPAR SOCIAL MEDIA OFFICER

Adam El-Sayed

bacpar.socialmedia@gmail.com

Dear BACPAR Membership,

I hope this message finds you all in good health and that you have all been managing to stay strong and persevere through the past few, difficult months.

The Social Media Officer remains a relatively new role within the BACPAR Executive Committee, and I would like to take a moment to introduce myself after recently taking on the role. My name is Adam El-Sayed, and I am based at The Specialised Ability Centre in Manchester and work solely in the field of Prosthetic and Amputation Rehabilitation and have done for the last five and a half years.

Social Media, as some of you may know, can be a bit of a mine field of misinformation and at times, negativity. Conversely to this, it can also be the opposite if we harness the true potential of the various platforms available out there be it iCSP, Facebook, Twitter, YouTube or any of the various other platforms readily available. This can only be achieved through networking, connecting, and interacting with one another. As Social Media Officer, I plan to do just that, and hope the BACPAR Membership can join me in this task.

Share what is happening in your departments, be it new concepts you are working on, previous, on-going, or upcoming projects undertaken by anyone in your teams, highs and lows experienced by clinicians and patients alike – we want to hear about it. Share information about any upcoming study days or webinars you are involved in which you think may be of benefit to the rest of the membership. Share your general queries, comment where others share theirs. Send us photographs of your clinics, your team members, even your pets, we want to learn more about you all!

If you have anything you would like shared on the various BACPAR Social Media accounts, please feel free to contact me directly via bacpar.socialmedia@gmail.com and I will be more than happy to post what you have been willing to share. Although there are more than 240 of us, we are all a single network!

ELECTION OF BACPAR OFFICERS 2021

POSTS FOR NOMINATIONS

Four Officer posts will be up for election at the BACPAR AGM in November 2021. Here is some information about each role: as you can see it is possible to share a role which can work really well, particular if you share a role before taking it over in the subsequent years.

So, what commitment does it need to join the BACPAR Exec Committee? The Committee meets twice a year (for which expenses are paid): of course, the pandemic has affected this and it may mean in the future a mix of face to face, virtual and hybrid meetings will be held now we are used to Zoom! Having recently had the March 2021 meeting (see picture), my experience is it's a privilege to work with such a range of amputee rehabilitation colleagues on the committee - so motivating, interesting and inspiring – and it keeps you up to date with all the wider developments and opportunities in amputation rehabilitation.

You will be getting more information on how to make nominations prior to the AGM via email but if you want to speak to anyone about the roles please contact the current post holders – email addresses on the back page.

Journal Officer - Mary Jane Cole and Sue Lein will be coming to the end of their first term sharing this role.

Supported by all members the Journal Officer coordinates the bi-annual journal, suggesting content and developments, collating articles, getting copy into the required order for the formatter and planning a timeline to get the Journal published in a timely way. This includes liaising with advertisers and dealing with the formatter and printer.

It is a great way to have contact with members and all sorts of people in the rehabilitation world - literally, and to appreciate first hand about the range of activities people are engaged in. We can help explain the bits of formatting and printer lingo!

Research Officer – Chantel Ostler and Fiona Davie-Smith have completed two terms jointly covering this role. You can read more about it at the end of Fiona's research report on page 14.

South Thames Regional Rep – Hayley Freeman and Pip Joubert have been the South Thames reps for a number of years and are now both going to step down due to other commitments. If anyone would like to step into the role, please email them at souththames.bacpar@gmail.com to ask about the role or put your name forward. In the meantime, they are still around so please do feel free to contact them with any questions or for peer support at the above address.

The role of a Regional Rep is to connect with their local members, arranging regional meetings and linking to the whole of BACPAR by attending the Exec Committee, giving regional reports and feedback from their region, suggesting items for the Journal etc.

Guidelines Officer - Rachel Humperson is coming to the end of her first term in this role.

The role is to oversee the production, endorsement, publication and review of BACPAR Guidelines, the fruits of which you will find with this edition of the journal!

Sue Lein
Treasurer

LETTERS TO THE EDITORS

EDITORS: We asked you for feedback on the Journal: here are 3 responses we received referring to the Journal as a whole

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Dear Editors,

I am writing to offer a few thoughts from the BACPAR conference 2020. Firstly, I think we will all agree that the conference was a huge success, it was a shame it could not be completed face-to-face but with the current situation the virtual format worked very well. Congratulations to all the speakers, presenters and presentations given they were all fantastic and very insightful.

Upon reflecting on the conference and in particular on the talk from Dr Hopper and the treatment he received, I thought there were a few interesting points raised with regards to amputee rehabilitation and the setting this takes place.

Whilst I totally agree that amputee rehabilitation is a highly specialist area, I think it is important we look at the geographical location in relation to the services that patients can access. There were a few discussions at the conference stating the location of treatment should be completed in specialist settings and not in the community. Due to geographical differences in my current line of work I am very fortunate to have access to a Clinical Specialist Amputee Physiotherapist who I link in with on a daily/weekly basis via email to obtain advice and discuss treatments. However due to service provision in the geographical area it is not feasible or sustainable for all of the amputee patients to attend the local specialist centre for rehabilitation, hence why a lot of these amputee patients are managed in the community. Whilst I do not claim to be a Clinical Specialist in amputee rehabilitation, I feel I have had enough experience and enough resources at my disposal (via linking in with a Clinical Specialist) to offer a very good amputee rehabilitation service - however as always there is always room for improvement. During recent months and not having access to facilities such as gyms/parallel bars etc. I have seen success in PPAM Aiding patients in the patient's own homes and early gait and functional tasks in the patients' home. I accept this is not ideal however the service I provided needed to be adapted due to current circumstances. I feel with the right training community rehab teams can be invaluable in the amputee rehabilitation pathway.

I think the COVID pandemic has really made us all look at the services we manage or work in on how we can adapt theses services and therefore the pandemic has had a positive impact on service development.

In summary I would love to hear views/thoughts on location of amputee treatment given the lack of services for specialist centres in some geographical locations. This could propose a future research idea of the effectiveness of treatments issued in different settings e.g., specialist centres, community etc. Finally, I would like to hear any advice/suggestions of future training ideas/ resources or tools that may assist community physiotherapists with amputee rehabilitation as the number of amputee patients being managed in the community is increasing.

Thank you for reading and please let me know your thoughts.

Regards

Ben Herberts (Band 6 Physiotherapist)

EDITORS: Thank you Ben. We tasked someone to write some conference feedback for this edition of the Journal (see page 10) and it is good to have your reflections too. Clearly Dr Hopper made an impression on many of our members, and we are aiming to invite him to contribute to a future journal to build on this. We also welcome you introducing the challenges of rehab in different locations and in the community. Coincidentally Louise Whitehead has a piece on this in this edition about a new service developed in Scotland.

Dear Editors,

I have been a BACPAR member since November 2019 and re-joined amputee rehabilitation (acute pre & post-operative inpatients) in September 2018. I am a Clinical Team Lead for Specialist Surgery at Queen Elizabeth Hospital, Birmingham. The role encompasses clinical leadership to rotational staff working on our Vascular / Upper GI / Sarcoma ward.

I really enjoy the journal and its holistic coverage of amputee care. Firstly, I enjoy content that is significant and directly transferrable to my clinical workplace. Secondly, I enjoy articles of 'interest only', but even these play a vital role in furthering my understanding of the amputation journey that stretches well beyond the initial acute phase. This helps me to embed into rotational staff the importance of the foundations we lay from the very start in acute settings. I particularly enjoyed the Leg4Africa and Limb-art articles.

As a result of COVID-19, we have lost our vascular services to another site. However, it is hoped my suggestions may be of use to colleagues in similar situations.

My clinical caseload is on a hepatobiliary ward and my staff on vascular are rotational, therefore I find staff induction particularly challenging. It needs to be effective, detailed and relatively swift as there is so much information to convey. When I joined the team there was little in the way of accessible documented / written information. We have worked hard to compile induction packs, checklists, and exercise & advice leaflets. Therefore, any further journal support / information sharing would be extremely useful for our acute leadership.

Sammy Mann

Queen Elizabeth Hospital, Birmingham

EDITORS: Thank you Sammy. We are particularly interested in your suggestion for sharing ideas about service developments: Our iCSP group and Facebook are also a good vehicle for this, and we will look to invite someone to write on this subject for the next Journal!

Dear Editors,

I have been a BACPAR member for many years. I have found the journal an invaluable resource as I am a lone practitioner in a large teaching hospital. I am of the era that having a physical journal is much more satisfying and more likely to be read than a digital copy and I can refer back to it knowing it is where I left it!

Last year I completed the second amputee MSc module on Contemporary Issues in Limb Loss at the University of Southampton. Sadly, the face-to-face lectures were curtailed due to coronavirus restrictions. I was struggling to come up with an idea for my dissertation. In the spring journal there was an article about bespoke cosmeses. This sparked an idea and stimulated writing about this subject from many angles from an art and design view to a sociological perspective, to prominent celebrities' prostheses to current prosthetic NHS service provision.

I would love to see the journal continue to be physical, but I know I am a technological dinosaur, and I am in a minority.

Yours sincerely

Marie Hulse, Amputee Physiotherapist

EDITORS: That is good to hear about your MSc studies and that your dissertation was prompted by an article in the journal – this is a great example of what can happen as a consequence of information being shared in this way. We look forward to you sharing your dissertation findings in the journal at some point!

We value your view on the benefits of a journal as a hard copy. Member feedback via the member renewal survey suggests this continues to be favoured.

REFLECTION ON BACPAR VIRTUAL CONFERENCE NOVEMBER 2020

Sally Finlay
Physiotherapist
The London Prosthetic Centre, Kingston-Upon-Thames and The Douglas Bader Rehabilitation Unit, Queen Mary's Hospital, Roehampton

In a year defined by firsts, BACPAR Conference 2020 was no exception as we embraced the technology that has kept colleagues, pupils and teachers, healthcare professionals and patients, businesses, family quiz nights and societies communicating during a tumultuous and challenging year. That's right - BACPAR went virtual for the first time! Speakers and chairs navigated their way admirably through periodic technical hitches and challenges, maintaining composure and smiles, on camera at least!

Another first saw us teaming up with The Vascular Society of Great Britain and Ireland, SVN (The Society of Vascular Nurses) and SVT (The Society for Vascular Technology of Great Britain and Ireland). This allowed access to an abundance of diverse and captivating talks, facilitating knowledge sharing and promoting MDT cohesion and mutual awareness; unarguable positives for patients and professional development.

I attended my first BACPAR conference in Wolverhampton in 2019 so BACPAR 2020 was only the second BACPAR conference I had attended. Personally, I believe nothing can beat face to face contact and the discussion and debate that is stimulated by direct human interaction and networking but in the circumstances the virtual setup worked extremely well.

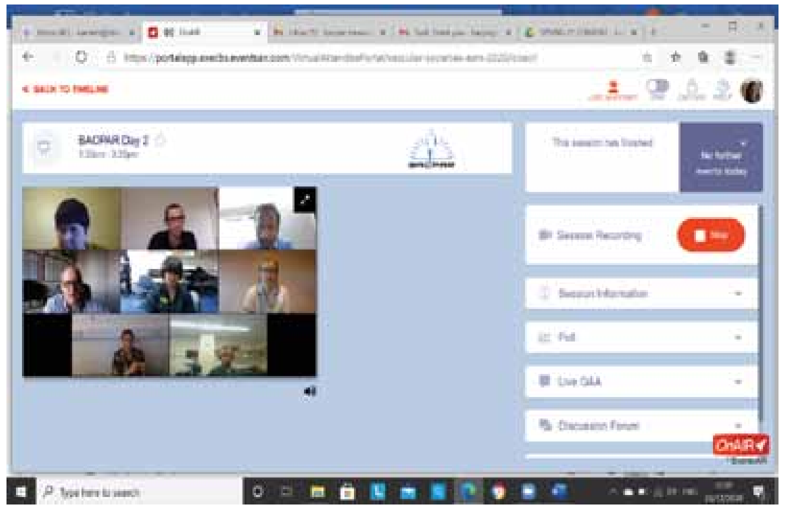
There were a few technical hitches along the way, like occasional sound failure, but I thought that those chairing the sessions coped admirably. Considering the number of talks put on over the 3 days it ran incredibly smoothly and professionally. What we lost in human interaction we gained in convenience and the amount of information we could access. It has also been invaluable to have the videos of the talks available after the event to revise, reflect upon and digest at one's own pace.

The content varied extensively and was informative, inspiring and, without exception, fascinating. Topics presented and discussed ranged from the rehabilitation of a quadrilateral amputee with symmetrical peripheral gangrene to an update on clinical guidelines to exploring the outcomes of through knee amputations to the use of the MOCA (Montreal Cognitive Assessment) as a prosthetic mobility outcome to a review of the quality of life after amputation in patients with advanced CRPS (Complex Regional Pain Syndrome) to the impact of hydraulic foot and ankle provision on K3 and K4 activity users to name but a few.

The 3 day conference was rounded off by Professor David Nott's awe-inspiring talk about his extraordinary experiences working around the world, in the most hostile environments on the planet, as a humanitarian surgeon. He shared eye-opening and eye-watering stories and hard-hitting footage, such as an appallingly long line of upper limb amputees queuing up to see him in Sierra Leone where rebel fighters were routinely amputating hands to impede voting. The David Nott Foundation has provided life-changing emergency surgical training to over 700 surgeons across the globe. Countless lives and quality of lives have been impacted as a direct result of this remarkable man's work. An inspiration indeed.

I found it humbling and motivating to witness so many dedicated, capable, skilled and knowledgeable people from across the nation, working in an area I am personally passionate about. I felt inspired by many of the talks and discussions and by all of the hard work that is going on all over the country to improve and advance treatment options for our patients.

It will be interesting to see as we move towards a more COVID manageable future, to see whether people will want to return to lecture halls and B+Bs so that we can meet and learn in person or whether the convenience of attending talks in one's own sitting room outweighs the effort it takes to gather in a remote meeting place. Time will tell.



REFLECTIONS ON A STORY OF RESILIENCE RECOUNTED BY MR NEIL HOPPER AT BACPAR CONFERENCE 2020

Sally Finlay
Physiotherapist
The London Prosthetic Centre, Kingston-Upon-Thames and The Douglas Bader Rehabilitation Unit, Queen Mary's Hospital, Roehampton

Mr Neil Hopper's presentation "Was it me or the MDT?" won him the award for best speaker on day 3 of BACPAR 2020, and justifiably so. His presentation provided a refreshingly forthright and honest insight into what it is really like to become a bilateral below knee amputee from the unusual vantage point of a previous amputator, for Mr Hopper is a consultant vascular surgeon. As it would be impossible to summarise the dozens of talks provided at BACPAR 2020 and do them justice in one article, I am going to focus and reflect upon Mr Hopper's excellent and thought-provoking talk.

For those of you unfamiliar with his story, Mr Hopper, a 44 year old surgeon, was away camping with his children in 2019, when he and his daughter fell ill with D+V and flu-like symptoms (fever, aches) and had to return home. His daughter recovered but sadly Mr Hopper continued to feel poorly over the next couple of days eventually becoming severely unwell requiring admission to A&E where he was found to be hypotensive (systolic BP 66mmHg), febrile and tachycardic. He was resuscitated with IV fluids and antibiotics and transferred to ITU with bilateral cyanosed feet. He was reviewed by numerous specialists and after determining his major blood vessels were uncompromised he underwent hyperbaric oxygen therapy in an attempt to salvage his lower limbs. Alas after 16 or so treatments Mr Hopper became very poorly with sepsis that was likely caused by gangrenous toes, which ultimately led to bilateral forefoot amputations and removal of both soles of his feet. Mr Hopper expressed how very difficult he found this, not being a proponent of this amputation type as a surgeon. Consequently, after many medical and specialist reviews, Mr Hopper consented to bilateral transtibial amputations, which, while being the best option available to him, he described as the hardest thing he's ever done.

Going home – isn't it wonderful?

Post-surgery, Mr Hopper experienced a post-operative "high", which he attributed to sheer relief that he was safe and no longer unwell coupled with the continual attention he was receiving from family, friends and staff. He was receiving daily physio and making some progress. This euphoria was short-lived however, and in his words, the "wheels came off the cart" on his return home.

Mr Hopper's description of returning home, so often seen as a watershed moment for celebration by healthcare staff, resonated with me because his experience was so strikingly similar to that of the speaker who had the biggest impact on me and my practise at BACPAR 2019 in Wolverhampton. Mr Hopper spoke of humiliation, wanting to give up, boredom, anxiety, immobility and demotivation, similar to the overwhelming, negative feelings described by trauma patient Ms Mziokwich, who co-presented with Paul Marshall-Taylor (OT) at BACPAR 2019. Their presentation centred around and advocated the Bridges Self-Management approach to supporting patients along their rehab journey, a tool I had been interested to learn about at an AGILE1 conference the year before. Ms Mziokwich's portrayal of the emotional and physical struggles she experienced after being discharged home echoed those of Mr Hopper's.

One of the main learning points that influenced my practise following BACPAR 2019 was my shift in attitude towards, and language pertaining to, patient's discharges home. Ms Mziokwich appealed to clinicians to be mindful and sensitive about their communication and to consider that whilst people may present a positive picture, they may be terrified within. I have consciously changed my language and instead of "how exciting you're going home on Friday" I'll try "how are you feeling about going home on Friday?" and keep questions open, my attitude neutral. Some patients describe an inability to voice negativity or anxiety because they don't want to burden loved ones or let staff down who are trying so hard to stay upbeat but in fact they need space and opportunity to discuss legitimate fears about returning home and facing everyday life again after life-changing surgery. Both Ms Mziokwich and Mr Hopper urged us to take time to listen, really listen, the latter encouraging us to "pull a curtain round" and ask our patients how they are coping and feeling. He assured us that we may well be astounded by how many people reveal that they are not in fact managing, despite putting a brave face on.

Contrarily and evidently, some patients need kind and professional forewarning about the challenges that they are likely to face on their return home that they might not have considered while they may still be in the post-operative “high” described by Mr Hopper. I have had the privilege of working at QMH2, Roehampton at a time when the team, in conjunction with two fantastic PhD psychology students from St Mary’s University, Twickenham, has been developing resources (for example video narratives and striking artwork) to manage patient expectations of life after rehabilitation and how to adjust to living the rest of one’s life as an amputee. This invaluable project was also presented at BACPAR 2019 and may pave the way for other innovative methods to better prepare our patients for home and life after rehab.

Life after rehab

Both Mr Hopper and Ms Mziokwich identified how vital it was for them to have achievable goals to focus on and work towards in the future. Mr Hopper started to attend a gym and employed a private physiotherapist, which he identified as his turning point. Pre-amputation, he acknowledged that he had underestimated the psychological element of physiotherapy and now attributes 80% of our role to the art of motivating and connecting with patients so that “they have hope and can engage”. Mr Hopper emphasised the importance of celebrating the good and dismissing the bad and having things to focus on and achieve. He spoke of visualising goals really helping him – bantering again with colleagues at work and playing football with his son. Perhaps we are all guilty of underestimating how impactful an influence we can have as physios on a patient’s mindset and therefore outcome, a topic explored recently by Andrew McCauley in an excellent HDPN3 webinar. He presented similar topics raised by Mr Hopper – the power of visualising goals (and using all senses to do so – evocative images, music, smells etc.) to motivate and catalyse readiness for change, the importance of setting realistic goals collaboratively, which is bread and butter physiotherapy but essential to accomplish, and open, two-way communication with a heavy emphasis on listening properly. Similar themes as those addressed in the Bridges self-management tool that is centred around patient-led goals and the patient taking ownership of their rehabilitation aims and direction. Taking time to invest in these aspects can pay dividends in the long-term as wide evidence supports and to which Mr Hopper and Ms Mziokwich both attest. Recently the remarkable Billy Monger (bilateral amputee following a F4 crash and winner of the BBC Sports Personality of the Year in 2018) has completed a 140 mile challenge over 4 days by walking, cycling and kayaking for Sport’s Relief. When interviewed, he, too, specifically spoke of the importance of adapting his mentality and motivation to achieve his goal.

Patient empowerment, motivational interviewing, lifestyle medicine are terms increasingly popular in healthcare and that were explored in depth at the AGILE conference in 2018 mentioned above “living well with long term conditions”. Without clear direction how can our patients know where they are heading? Without guidance on getting into the right mindset how can they be motivated to engage in therapy and rehab? Physiotherapists have the responsibility and the privilege to better prepare our patients for rehab, for discharge and for life after rehabilitation through open discussions, providing opportunities for patients to talk and be really listened to, positive leadership, coaching, collaboration, motivation and preparation. This often comes back to what can be an overlooked skill but one that is central to all that we do as therapists (and human beings!) – effective communication.

Service frustrations

Mr Hopper was full of praise for the many staff members that looked after him from amputation through to prosthetic rehabilitation but he voiced many service frustrations. He wished to be more involved in the prosthetic prescription process and was surprised that patients are not given more say about this in comparison to the choice that patients are given pre-elective surgery, for example. Mr Hopper was dismayed by the lack of resources generally available for amputees and specifically at the lack of community services and physiotherapy (which, in his view, was synonymous with getting better) he received whilst awaiting his rehabilitation bed, a frustration shared by many of the physios, including Julia Earle, current BACPAR chair, present at the talk. He often felt it was a battle to be heard and although he received the “red carpet treatment” for being “one of our own” it was still inadequate, which he found shocking. This disturbed him as a clinician responsible for patients, who he felt were likely to receive even less than him. He decried PIRPAG4 exercises as boring, unrelatable and unchallenging, which was a pertinent reminder for us all to keep our treatments sharp, relevant, evolving and challenging.

I am now an amputee

He provided a very honest and mind-opening account of what it is really like to become an amputee, a bilateral one at that. He talked of grief like a huge ball of fire that he can only glance at and of still waking up every morning thinking that what has happened to him is just a bad dream. Mr Hopper stressed the totality of change in every aspect of one’s life post amputation describing it as “throwing a hand grenade at one’s existence”; something he admitted that he had not fully appreciated as a surgeon. He drew direct and interesting comparisons in his attitudes and beliefs held as a medic versus an amputee. Health professionals can hold an academic understanding of the term “life-changing” but without direct experience it is hard to grasp just how entirely every aspect of one’s life changes. As a surgeon he often viewed amputation as a failure of treatment and the end of a journey whereas he now realises it is just the beginning for many and that the surgeon is responsible for creating an “organ of locomotion” and must critically consider the impact of their surgery on prosthetic provision and patient outcome.

He described “amputee time” that crawls by and the impact that lapsed deadlines can have on patients (e.g. missed appointment dates) that may be less meaningful to busy professionals in a buzzing clinic. This was a timely reminder to try not to promise things one cannot deliver or if we do then to either try and stick to them or profusely apologise and clearly explain if we cannot.

The internet rabbit hole

Mr Hopper encouraged us to warn patients about the internet, which as well as providing support and information also documents disasters and gives patients who feel angry a voice that can be vociferous and bewildering. He highlighted the importance of the MDT taking time to talk openly about what amputees, who may be at a vulnerable stage of recovery, may find on the internet. Reading about others’ disappointments can be upsetting and discouraging but at the other end of the scale, reading about high achievers can be intimidating and deflating and trigger feelings of inadequacy. He promoted conversations about diversity and that not everyone will achieve mountain climbs and 10k runs on the beach. In his words, forewarned is forearmed.

Ample food for thought

Some of the wider issues that Mr Hopper raised we may not be able to influence but there are certainly others that we can reflect on and consider whether we are doing to the best of our abilities now. Listening properly. Collaborating. Taking time to set meaningful goals and empowering patients to take charge and have direction. Motivating whilst retaining realism. Keeping an open mind and respecting that a patient’s presentation may differ from internal battles. Forewarning amputees about the internet and how informative but simultaneously damaging it can be. Creating an environment in which patients can be honest and open. Having conversations to alleviate the pressure to always be “ok” or to be a “high achiever”. Preparing our patients for life after rehabilitation and recognising that rehab is just the beginning.

Mr Hopper said “it’s not what has happened, it’s how you deal with it”, which could not be more apt following the challenging year that we have all had. Let us move forward and make positive strides in improving our patients’ outcomes.

References

1 The Association of Chartered Physiotherapists with a special interest in Elderly People

2 Queen Mary’s Hospital

3 Health Development and Performance Network

4 Physiotherapy Inter Regional Prosthetic Audit Group

BACPAR RESEARCH OFFICERS' REPORT - MARCH 2021

Fiona Davie-Smith
BACPAR Research Officer
fiona.smith6@ggc.scot.nhs.uk

Research Bursary

BACPAR has a research bursary pot of £3000 which members can apply for to support their research costs or a project that is relevant to developing physiotherapy practice in the field of amputation or prosthetic rehabilitation. This bursary is open to members who have been with BACPAR for two years or more and can be accessed through the BACPAR website, along with guidance to complete this. All applications are reviewed by the Research Officers and these are taken forward to the Exec meeting in March for approval. If the applicant is successful, they must agree to write/present an update on their project for BACPAR Journal/Conference.

Update on research supported by BACPAR

Over the last few years BACPAR have supported several research projects through their research bursary scheme. One of these projects is Hayley Crane's PhD research exploring patients and staff views and experiences of Knee Disarticulation Amputations. This is a mixed methods study and has been presented at conferences in the UK. Hayley is now writing this up with the support of Hull York Medical School.

Tim Randall is completing his Masters at Southampton University and received a BACPAR bursary to support his project "The impact of MPK provision on physical activity compared to mechanical knees, measured with activity monitors". Tim has presented his findings at the recent BACPAR/VASAM conference and we look forward to seeing these findings in peer reviewed journals.

Chantel Ostler's Me-Amputee study has also benefited from a BACPAR bursary. Chantel has completed recruitment of 37 participants from 4 English Limb Centres. Her study is exploring what patients feel are important outcomes following prosthetic rehabilitation to address the current lack of consensus around outcome measurement in UK practice. COVID has delayed the progress of this work but analysis is currently underway and the key areas of priority for lower limb prosthetic users have been identified.

Five themes were identified that seek to encompass what prosthetic users feel are important outcomes following prosthetic rehabilitation. The ability to participate in important activities was highlighted as key but notably how participants were able to undertake these activities was also raised, i.e. independently, safely and with minimal equipment. Participants also prioritised a comfortable, easy-to-use prosthesis and discussed the importance of being able to manage their own pain. Adjusting and accepting their new normal was also integral to success and this was linked to being able to achieve the goals they set for themselves. A significant finding of this study was that these five themes, or outcome domains, did not exist in isolation for prosthetic users, but appeared to interact with each other, contributing to, or inhibiting their holistic sense of recovery.

This study will contribute to Chantel's PhD at the University of Southampton. As part of the PhD Chantel has also recently completed a narrative review exploring outcome measurement in prosthetic rehabilitation. The paper is currently being considered for publication, but you can have a sneak preview using the pre-prints link here https://engrxiv.org/kfgdy/. The review sets out the issues of outcome measurement in our field from a clinical perspective and thinks about what we might need to do to make outcome measurement work for us in the future. The next steps of her PhD plan are to begin to develop a Core Outcome Set for prosthetic rehabilitation following major lower limb amputation. The next phase of the work will draw in stakeholders across the sector including clinicians, commissioners and academics to explore their views of important outcomes. So watch out for a chance to have your say on this important subject

What other research is happening in our field?

Natalie Vanicek's NIHR National Institute for Health Research (NHR) funded Research for Patient Benefit (RfPB) feasibility study, STEPFORWARD, has closed to recruitment and data analysis is underway. Sites involved hope to hear about results in the coming months and whether the team will seek further funding to progress to full trial.

BACPAR have also been asked to support a national surgical audit investigating the decision-making process which underpins the decision to proceed with amputation or not, and how well surgeons/ anaesthetists can predict outcomes – both short-term mortality and longer-term functional recovery. This project is being organised by Dave Bosanquet from the Royal Vascular Society.

Hayley Crane, Chantel Ostler and Natalie Vanicek also attended the Royal Vascular Society James Lind Alliance Research Priority Setting Meeting* in January 2021 (* see separate report). The meeting focused on agreeing research priorities following lower limb amputation and was well attended by clinicians, academics and patients alike. We are awaiting the formal launch of those priorities and can then hopefully use them to help justify the need for future work.

The University of Southampton have started an MDT research group called People Powered Prosthetics which aims to bring together clinicians, patients, researchers, designers and academics to improve the lives of people with limb loss through research. They now have a website and have formally launched the group in early March 2021 with a webinar and study event. The group have also recently undertaken a patient and public involvement (PPI) project to explore what prosthetic users feel are the important areas for improvement regarding their prosthetic limbs. The findings and infographic from this work can be seen in this edition of the BACPAR journal.

Fiona Gillow is looking at Physiotherapists' and Occupational Therapists' experiences of using removable rigid dressings with patients in hospital post trans-tibial amputation. This is part of her Masters module and she is looking for membership support to take part in this project.

Fiona Davie-Smith continues to add to the evidence base of Specialist Prosthetics and has had her recent paper on "Low activity users transitioning from mechanical knee to MPK" accepted for publication in Prosthetics and Orthotics International. More papers are in the process of being submitted on the "Impact of hydraulic Foot and Ankles" and the "Impact of Multi Articulating Hands".

How can BACPAR members get involved in research?

A great step forward for recognising the need for more evidence in the field of amputation rehabilitation is the development of a Clinical Doctoral Training Centre (CDT) at the University of Salford. This programme aims to provide formal research training for clinicians, engineers and academics in the field of prosthetics and orthotics. The centre is run by the University of Salford, University of Strathclyde, Imperial College and University of Southampton and has just recruited its second year of PhD students. The centre is always looking for clinically relevant research ideas (with an engineering focus as the centre is funded by the Engineering and Physical Sciences Research Council) as well as clinicians who may be interested in undertaking a PhD themselves. If anyone would like more info about the PhD programme they can visit the CDT website. If you have an idea that you would like to be considered for a PhD project for one of the CDT students, do contact the research officers.

You can be as involved as you like in the project and sometimes being a clinical collaborator is a great way to dip your toes in the research pond, with lots of support from the CDT academic team.

If PhD training sounds a bit scary there are other options to get involved in research whether through a Masters in Research or by undertaking the Masters in Amputation and Prosthetic Rehabilitation at the University of Southampton. A number of excellent student research projects are currently underway, such as Tim Randell's work exploring the impact of MPK provision on physical activity compared to mechanical knees, measured with activity monitors. Lauren Newcombe is also undertaking her MSc at Southampton and her research is a reflective analysis of the factors influencing the provision of information to patients awaiting amputation. Other student projects currently underway include a qualitative analysis of the experiences of family caregivers following a loved one's lower limb amputation and a scoping review of non-oncological outcomes following limb salvage surgery in patients with knee sarcoma. Feel free to contact the research officers or Maggie Donovan-Hall at the University of Southampton if you would like further information mh699@soton.ac.uk

Nomination and Election of Research Officer Role is due in November 2021 at the AGM, this role includes:

- Review Research Applications as they are e-mailed in
- Answer research queries from members and other interested parties
- Update Research Bursary Application Form
- Contribute to wider discussions on research at BACPAR Exec
- Research Report to Exec Committee twice a year
- Attendance at BACPAR Executive Committee
- Disseminate research engagement to BACPAR members through BACPAR secretary
- Support members to engage in research and encourage collaborations/discussion that BACPAR could be involved in

Chantel Ostler and Fiona Davie-Smith have thoroughly enjoyed their two terms in this post and will be able to support anyone who would like to take on this exciting role in the future!!!

Chantel Ostler and Fiona Davie-Smith
Research Officers
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JAMES LIND ALLIANCE PRIORITY SETTING PARTNERSHIP FOR VASCULAR AMPUTATION

Hayley Crane
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This January three BACPAR members, Chantel Ostler (physiotherapist, clinical academic and BACPAR Research Officer), Natalie Vanicek (Professor of Clinical Biomechanics and Associate BACPAR member), and Hayley Crane (physiotherapist, PhD Student, and BACPAR PRO), were involved in the James Lind Alliance Priority Setting Partnership for Vascular Amputation.

What is the James Lind Alliance (JLA)?

The JLA method is designed to change the way research funding is granted by bringing patients, carers, and clinicians together to agree what topics of research matter most. Another purpose of the JLA is to identify research questions that aren't just important to patients and clinicians but are also useful in everyday clinical practice. The NIHR (National Institute for Health Research) funds the infrastructure of the JLA.

What is a Priority Setting Partnership?

Priority Setting Partnerships (PSPs) enable clinicians, patients and carers to work together to identify and prioritise evidence uncertainties that could be answered by research. While the James Lind Alliance (JLA) facilitates these partnerships, the funding and organising is done by the PSP itself, in this case the Vascular Society of Great Britain and Ireland (VSGBI). The JLA PSP process results in a Top 10. The aim of the Top 10 is to highlight important areas for research, but not necessarily to come up with the specific research questions.

How were the important areas for research identified?

A survey was sent out to patients, carers, clinicians and members of the public asking what research questions in vascular surgery they would like to see answered. The responses were split into Special Interest Groups (SIG), organised by the VSGBI. Each SIG is running Priority Setting Focus Groups to turn these survey responses into a Top 10. Twelve areas for future research were identified as high priority or resonated most with the survey respondents regarding vascular amputation.

How were BACPAR members involved?

Chantel, Natalie and Hayley were invited to attend the virtual focus group session for the vascular amputation SIG in January. Also in attendance were people who have had amputations, people who have cared for people with amputations and other clinicians. Everyone was asked to rank the 12 areas of future research that were identified from the survey and explain their reasoning in small breakout groups. Each small group created their priority order, which were then compiled together.

What happens next?

The Top Ten Vascular Amputation Research Priorities are due to be announced soon. You can look out for the announcement online at jla.nihr.ac.uk or wait until the next issue of the BACPAR journal.

Natalie's reflection

Being part of this event was a very positive experience. I had the opportunity to meet lots of different stakeholders involved in vascular amputation research. As is often the case, the views differed quite a bit between researchers/clinicians and people living with limb loss but the discussions were still inclusive. PSPs are an excellent opportunity to listen to and consider others' views. They are the building blocks to forge strong research pathways, especially in an under-researched area like prosthetics therapies.

Chantel's reflection

The PSP was a great opportunity to see how the James Lind Alliance process was organised and how consensus was reached. It was fascinating to see how people prioritised areas, what their justifications were and how they were influenced by the group discussion. There was great representation from people who had undergone amputation and their views were fully incorporated. Having a list of research priorities can really help to direct research projects of the future, and prioritise funding, in order to build an evidence base that helps to improve patient care.

Concluding reflection

I really enjoyed being a part of this process. It was interesting to hear the range of views from other participants and I changed my mind about my priorities several times throughout the process. The clinicians and the people living with amputation often had completely different priorities, so the process highlighted the importance of having everyone involved.

WHAT ARE THE VARIABLES USED TO ASSESS THE EFFECTS OF THE EMPOWER ANKLE AND WHAT ARE THE OUTCOMES? A REFLECTION ON A LITERATURE REVIEW

Haidar Abdali
Prosthetist, The London Prosthetic Centre

Introduction

I am a prosthetist with experience working in both the NHS and private clinical practice. As part of my continued development and to further my understanding of research, I recently completed a part-time MSc in Amputee and Prosthetic Rehabilitation at Southampton University. A key reason for pursuing my studies is the ever-changing landscape of prosthetics and the need to question the evidence base underpinning new devices. As clinicians and researchers, we are taught to be critical of the claims made by the marketing of new products. It is also often found in our profession that terms such as "evidence-based practice" and "clinical effectiveness" are used without clear links to the underpinning studies to guide our clinical decision-making processes. The reality is that we often lack guidelines and procedures to identify the "best" treatment or prosthetic component for our patients.

As the MSc programme is multidisciplinary and flexible, I was able to develop a dissertation research project that could help me address some of these questions. I decided to critically review the literature surrounding the Empower foot from Ottobock. The Empower is an innovative piece of technology, but I have found that it can divide opinions. It comes with a significant price tag, which may add to the controversy around its effectiveness. In my experience, I have found some users and clinicians question its financial worth, whilst others claim it has a significant and positive impact on their everyday life. Some of my clients have said they can walk longer distances with reduced fatigue. Some have told me they feel and understand its benefits but can live without it. I therefore decided to assess the current evidence base for the Empower to explore the variables used to measure the effectiveness and outcomes. This would help me better understand what areas the evidence has focused on and where we as clinicians can better assess such components.

Outline of literature review method

Using the PICO framework (a tool used to frame and answer a clinical or health related question), I developed the following research question:

What are the variables used to assess the effects of the Biom / Empower powered ankle foot and what are the outcomes?

In order to include all relevant articles, I included both the old (Biom) and new name (Empower) for the foot. Although this was not a systematic review, I followed the 'Preferred Reporting Items for Systematic Reviews and Meta-Analyses' (PRISMA) guideline to ensure that I carried out a thorough and robust search. After carefully reviewing my search terms and appropriate selection of databases, I initially identified thirty articles related to the Empower. A total of 11 articles met my inclusion and exclusion criteria and were applicable to my literature review question. I used the 'Critical Appraisal Skills Programme' (CASP) a quality appraisal tool. Although the CASP involves going through each checklist item (e.g., 'Did the study address a clearly focused question' and providing 'yes', 'can't tell' or 'no' answer), I also used a three-point scoring system that has been used in a number of other reviews to rate each article (such as Murray & Forshaw, 2013). Following the critical appraisal process, I extracted the data from each paper and analysed them to create a set of themes for each variable and the related outcomes.

Across the 11 articles, six main themes emerged, which were:

- The effects of the Empower on slopes
- The effects of the Empower on stairs
- The effects of various power settings when using the Empower
- The effects of the Empower on uneven terrain
- The effects of the Empower on energy consumptions (COT)
- The effects of the Empower on degenerative factors

The articles can be categorized under those themes, with some articles appearing under multiple themes, as seen in figure 1:

Summary of key findings

Although the overall quality of the papers was not particularly strong, the body of research did provide a number of key findings that provided guidance in answering the literature review question and also guide my future clinical practice. The highest scoring study was the article by Ferris A.E et al (2012). As well as using kinematic and kinetic data Ferris A.E et al (2012) used multiple outcome measures to assess the impact such as the T-test, 4 step test, Prosthetics Evaluation Questionnaire (PEQ) and Prosthetic Preference Questionnaire (PPQ). These additional measures helped illustrate a quantifiable change when using the powered foot.

Six articles addressed the metabolic costs when using the Empower, however no definitive conclusion could be drawn as there were multiple variations of devices and scenarios used to assess the COT.

There were promising results from the research that showed significant improvement on slopes of 6^{0}-9^{0}. Gait symmetry, energy consumption, force generated by contralateral limb and stair ascent were just some of the areas of significant improvement (Montgomery & Grabowski, 2018). The slopes were experimental and did not replicate the real environment where slopes may vary in gradients and length. There appeared to be a lack of detail regarding patient training and the activities within the studies and it was not clear how prepared they were for the trials. Furthermore, none of the studies indicated any specific training or physiotherapy input during the acclimatisation period despite the acknowledged benefits of physiotherapy within the prosthetic community (BAPO, 2015; Yoder et al, 2019). As a prosthetist I witness first-hand the importance of the physiotherapy and the wider MDT. A study by Ennion & Rhoda (2016) found that certain needs were only addressed when the MDT worked closely together. The best outcome occurs when the MDT coordinate roles amongst each discipline including healthy communication between amputees and clinicians. It is possible that the use of such specific training would have eliminated some of the compensatory strategies typically adopted by amputees when wearing a new prosthesis.

The plantar flexion power generated by the Empower is set by the prosthetist using guidance from the software which aims to mimic the power generated by the human ankle. Both Gardinier et al (2017) and Ingraham et al (2018) found energy consumption was more efficient when power settings were higher than the prosthetist's chosen values. However, there were also concerns about compensatory strategies adopted when the power rating was too high. Hansen et al (2004) explained that in human gait the "ankle plantar flexors do not forcefully "push" the trunk upward and forward at the end of stance". This raises a question as to what power rating is actually required for amputees. Should the plantar flexion mimic the human ankle or be more proportionate to potential compensatory strategies typically found in amputee gait?

The participant recruitment and selection were not fully reflective of the amputee community. All studies looked at activity levels of K3 and above (ambulation with variable cadence and the ability to transverse most environments). Understandably, this level of activity was selected for practical reasons in order to complete the studies. However, those amputees who are less able to ambulate as easily as K3 and above may benefit the most out of such devices. 'Evidence is emerging that some of the newer, more expensive, components may be beneficial for the frailer amputee rather than the more active' (Scopes. 2016 p15).

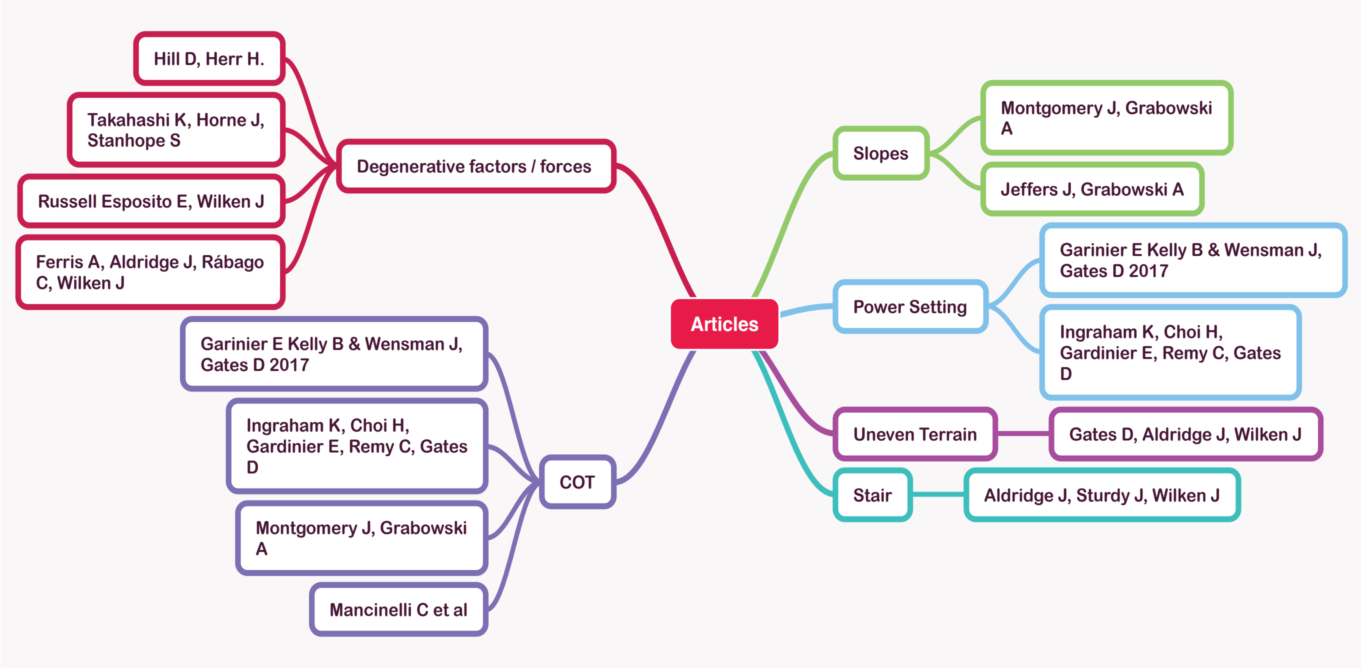

Figure 1: Categorised themes for each article reviewed.

Concluding reflection

Only two of the studies (Montgomery & Grabowski, 2018; Ferris et al, 2012) used outcome measures and self-satisfaction surveys to supplement the research. These gave a better understanding of a quantifiable change since the introduction of the new foot. Amongst prosthetic researchers and clinicians, there is a growing interest in outcome measures and patient satisfaction surveys to reach a better understanding of the changes that may have been introduced with a new prescription. Many institutions and professional bodies encourage and endorse the use of outcome measures to gain a quantifiable change in amputee rehabilitation (e.g. BAPO, 2015; Yoder et al, 2019; Koelewijn et al, 2019). This has been made particularly evident with the recently established NHS MPK (Microprocessor Knee) policy listing five core outcome measures as the basis of prescription. Currently there are no standardised methods of comparing prosthetic prescription because of the variations in assessment tools, patient activity levels, varying acclimatisation, and reliability (Gailey et al, 2002).

When researchers want to assess a quantifiable change in a new prosthetic foot, they need to undertake a gait analysis, but it is equally important to look at energy expenditure, physio-led training, and other relevant outcome measures. Further to this the correct and most appropriate environment should be maintained during the trials such as socket comfort, general health and adequate acclimatisation to the newly introduced foot. From the literature review, I identified a lack in consistency around the acclimatisation period (also known as the wash out period), with some studies regarding a few hours as sufficient and others requiring only few days.

It was disappointing to find that most of the studies compared non-articulating energy storing and return (ESR) feet against the Empower. My view is that the Empower should be compared to other articulating feet. This would identify the significant advantage of its unique feature (powered plantar flexion), not just the added value of ankle range of motion.

Although not conclusive the literature review provided me with a better understanding of how the Empower is being assessed in research and what we as clinicians need to be aware of when approaching a component change. The use of a systematic MDT approach using relevant outcome measures and reasonable acclimatisation periods are powerful tools in helping us with our clinical decision-making processes.

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GUIDELINES UPDATE

Rachel Humpherson
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After a lot of hard work by the Guideline Update Group over the last couple of years, I am pleased to announce the launch of the 3rd edition of the 'Evidence-based Clinical Guidelines for the Physiotherapy Management of Adults with Lower Limb Prostheses' 2020. These have been available online on the BACPAR publications page since the start of February this year. In addition to the 'Recommendations Document', the updated 'Audit and Implementation Guide' and the 'Process Guide' are available on the website. You will also find a paper copy sent out with this journal.

The NICE accreditation, which we received for the 2nd edition of the 'Clinical Guidelines for the Pre- and Post-operative Physiotherapy Management of Adults with Lower Limb Amputations' in 2016 is due for review later in 2021. We expect the process for both guidelines will be covered by this accreditation.

There was also an update to the "Information for the Public about Physiotherapy Following Amputation of a Lower Limb" which may also be found on the website. There are still copies of the poster that signpost patients to this leaflet, if you would like any copies to display in your clinical area please email your request to bacpar.guidelines@gmail.com.

Work has already begun to update the SPARG PPAM Aid guidelines. Many of the membership contributed to the Delphi consensus which will help to inform the guidelines development. The working party for the update of the 'Guidance for the Multi-disciplinary Team on the Management of Post-operative Residuum Oedema in Lower Limb Amputees' has been formed and the literature search undertaken, with support from the University of Southampton.

In addition to these updates, we have a good representation of BACPAR members participating in an upcoming global upper limb prosthetics and rehabilitation guidelines project. This is expected to run over the next 2-3 years, but this is good news for furthering progress of the NHS England Multi-articulating Hand Policy.

We are running simultaneous updates for guidelines, so if you are interested in finding out how you may support these in anyway, don't hesitate to get in touch on the email above.

Don't forget to check out the Article Corner to see some of the latest articles!

CONGRATULATIONS TO RACING DRIVER BILLY MONGER

CONGRATULATIONS to racing driver Billy Monger for completing his 140-mile walking, kayaking and cycling Red Nose Day challenge........with over £3 million pounds raised for Comic Relief!

Billy started racing at six years old. Following a crash at Donington Park circuit in 2017, he was left with life-changing injuries, resulting in the amputation of both his legs. With incredible determination Billy became the first-ever double amputee to race competitively in a single-seater racing car, at just eighteen years of age.

To donate online go to www.comicrelief.com

Image: https://www.bbc.co.uk/sport/

BACPAR ARTICLE CORNER

Rachel Humpherson
BACPAR Guidelines co-ordinator
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Welcome to the first edition of the BACPAR Article Corner! This is where you will find some of the most up to date and relevant articles for amputee rehabilitation published over the last year. We know you are all busy running clinics, so we have done the hard work for you and found some interesting articles.

This edition will focus more on the prosthetic aspect of physiotherapy management, as the articles have been taken from 2020 literature search updates. In future editions, we will aim to mix up the topics: they won't all be Bob Gailey articles I promise!

For the guidelines updates we use The Critical Appraisals Skills Programme (CASP) tools to appraise literature. If you would like to find out more about utilising the CASP tools, please visit - www.caspinternational.org.

Don't forget reading and appraising articles can contribute towards your CPD, and the CASP tools can provide evidence for HCPC audit.

If you have any comments on the articles or would like to get involved with regular article appraisals for the Guidelines updates, please get in touch with bacpar.guidelines@gmail.com or with bacparjournal@gmail.com

Don't forget to tell us if you have read an interesting article so that we can share it with our BACPAR colleagues!

Happy Reading!

- Sions JM, Manal TJ, Horne JR, Sarlo FB, Pohlig RT. Balance-confidence is associated with community participation, perceived physical mobility, and performance-based function among individuals with a unilateral amputation. Physiother Theory Pract. 2020 May;36(5):607-614.

Conclusion: Lower balance-confidence is associated with less community participation, lower self-perceived mobility, and poorer performance among patients with a unilateral lower-limb amputation.

To think about: Has anyone used the Community Integration Questionnaire (CIQ) referred to here? How useful is it? How do you encourage community integration in your rehabilitation?

- Gailey R, Gaunaurd I, Raya M, Kirk-Sanchez N, Prieto-Sanchez LM, Roach K. Effectiveness of an Evidence-Based Amputee Rehabilitation Program: A Pilot Randomized Controlled Trial. Phys Ther. 2020 May 18;100(5):773-787.

Conclusion: People with unilateral TTA who received Evidence-Based Amputee Rehabilitation program demonstrated significant improvement in functional mobility, with most participants (66.7%) improved at least 1 K-level (58.3%) and greater than the minimal detectable change (66.7%).

To think about: How evidence-based are our interventions? Do we do what we do because we've always done it – and it appears to work?

- Gailey R, Clemens S, Sorensen J, Kirk-Sanchez N, Gaunaurd I, Raya M, Klute G, Pasquina P. Variables that Influence Basic Prosthetic Mobility in People with Non-Vascular Lower Limb Amputation. PM R. 2020 Feb;12(2):130-139.

Conclusion: Variables that are modifiable with physical therapy intervention including hip extensor strength, hip range of motion, single limb balance, and waist circumference significantly influenced basic prosthetic mobility. These variables can be affected by targeted rehabilitation interventions and lifestyle changes.

To think about: Again, do we do what we do because we've always done it – and it appears to work? How targeted and evidence-based are our interventions?

- Geertzen JHB, Scheper J, Schrier E, Dijkstra PU. Outcomes of amputation due to long-standing therapy-resistant complex regional pain syndrome type I. J Rehabil Med. 2020 Aug 24;52(8):jrm00087.

Conclusion: Amputation can be considered as a treatment for patients with long-standing, therapy-resistant CRPS-I. Amputation can increase mobility and reduce pain, thereby improving the quality of patients' lives. However, approximately one-quarter of participants reported deteriorations in intimacy and self-confidence after the amputation.

To think about: What is it that contributes to a deterioration of intimacy and self-confidence? The diagnosis? The Amputation? Or the previous history ...or was it the timing of this study that may have influenced findings?

- Limakatso K, Madden VJ, Manie S, Parker R. The effectiveness of graded motor imagery for reducing phantom limb pain in amputees: a randomised controlled trial. Physiotherapy. 2020 Dec;109:65-74.

Conclusion: The results of the current study suggest that GMI is better than routine physiotherapy for reducing PLP. Based on the significant reduction in PLP and pain interference within the participants who received GMI, and the ease of application, GMI may be a viable treatment for treating PLP in people who have undergone limb amputations.

To think about: Has this been your experience? How familiar are you with GMI?

A PATIENT AND PUBLIC INVOLVEMENT (PPI) APPROACH TO UNDERSTANDING THE PRIORITIES OF PEOPLE WHO USE LOWER LIMB PROSTHETICS: **THE PEOPLE POWERED PROSTHETICS VOICES PROJECT**

Chantel Ostler, Dr Dominic Eggbeer, Teksin Kopanoglu, Dr Maggie Donovan-Hall, Dr Cheryl Metcalf, Janet Riddell, Dr Alex Dickinson
ppp3@soton.ac.uk

What is 'People Powered Prosthetics'?

'People Powered Prosthetics' (P3) is a global group of researchers, clinicians, prosthetic users and engineers based at the University of Southampton who are committed to working together to improve prosthetic limbs and rehabilitation services across the world through research.

Using voices to inform the future of prosthetics

Giving the people who use and work with prosthetic limbs a voice is key to all our work. In 2019 we undertook a project in the UK where more than 25 prosthetic users, clinicians, designers and academics attended a series of patient and public involvement (PPI) workshops aimed at exploring the current successes, good practice and areas for improvement in the field of lower limb prosthetics.

What did people say?

We produced an infographic to easily disseminate the key wants and needs identified by the people attending our workshops. They describe ways in which people want their prosthetic limbs to function on a day to day-to-day basis, some priorities for ensuring services meet the needs of the people who use them and the environment, and environment and highlight a real desire for users to share their experiences in order to help others.

How could this be useful?

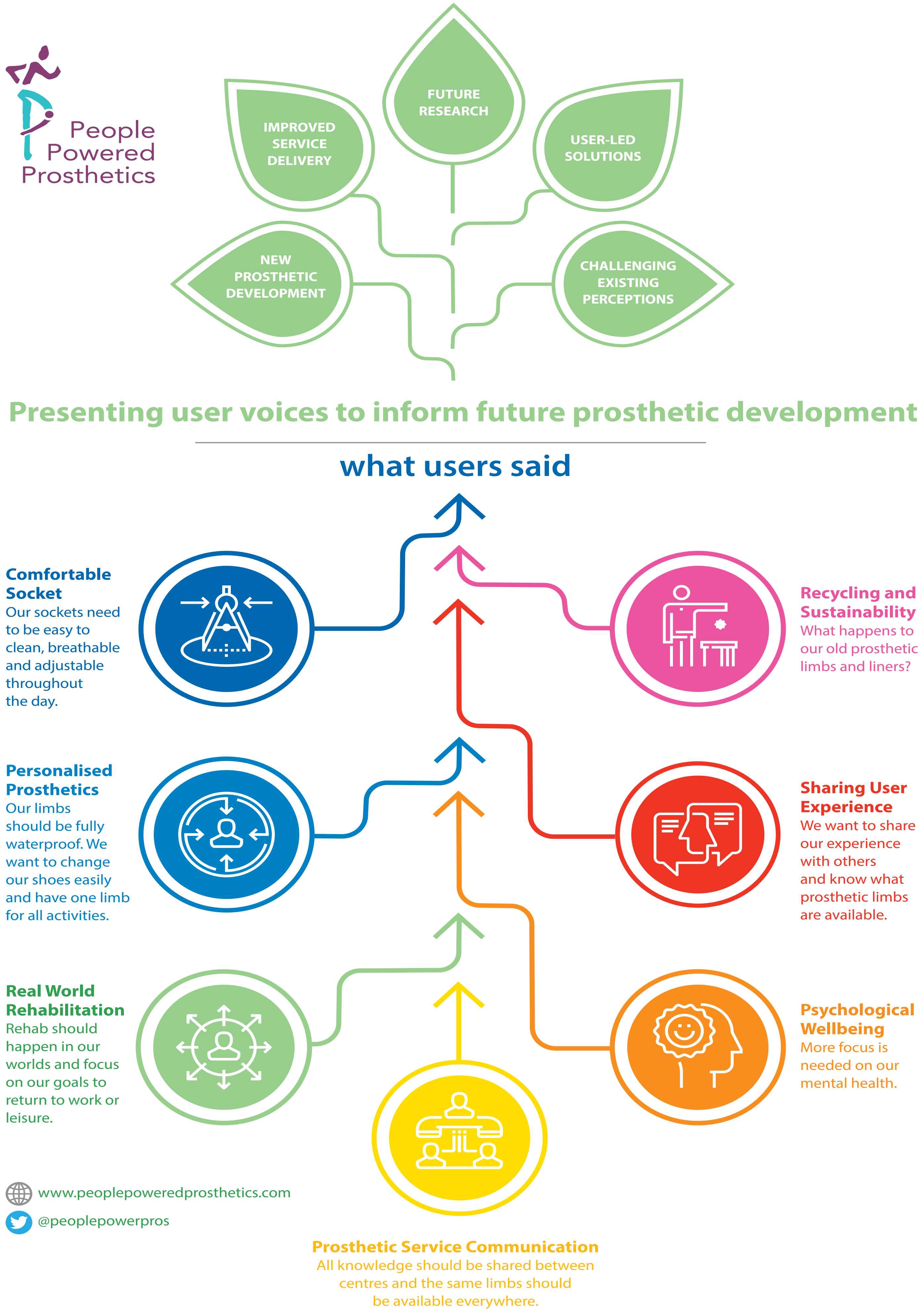
Although this is only a snapshot of some people's thoughts this PPI project gives us an opportunity to share these voices to help inform the direction of future prosthetic development. These voices could be used by academics, clinicians, clinicians, or industry to generate ideas for new research projects, develop new prosthetic components, inform the design of rehabilitation services or just get people thinking and asking more questions.

How can I get involved?

People are at the heart of our work and we welcome anyone and everyone to get involved with the P3 group. To find out more about this PPI project or any of our other work visit our website or contact us using the details below.

Contact: ppp3@soton.ac.uk

www.peoplepoweredprosthetics.com



People Powered Prosthetics

Presenting user voices to inform future prosthetic development

what users said

Comfortable Socket
Our sockets need to be easy to clean, breathable and adjustable throughout the day.

Personalised Prosthetics
Our limbs should be fully waterproof. We want to change our shoes easily and have one limb for all activities.

Real World Rehabilitation
Rehab should happen in our worlds and focus on our goals to return to work or leisure.

Recycling and Sustainability
What happens to our old prosthetic limbs and liners?

Sharing User Experience
We want to share our experience with others and know what prosthetic limbs are available.

Psychological Wellbeing
More focus is needed on our mental health.

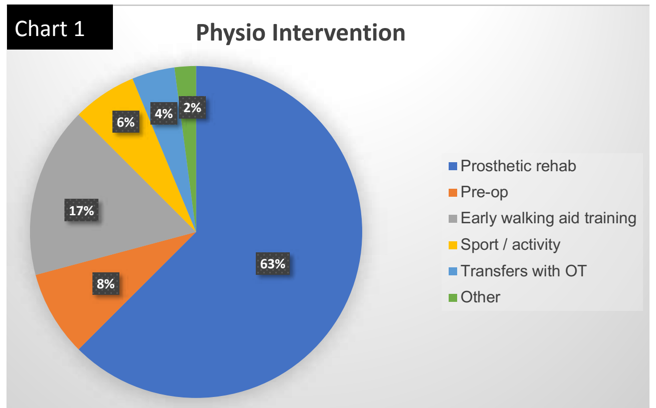
Prosthetic Service Communication
All knowledge should be shared between centres and the same limbs should be available everywhere.

www.peoplepoweredprosthetics.com
@peoplepowerpros

TAYSIDE & FIFE AMPUTEE OUTREACH SERVICE – 2020............

Louse Whitehead
Louise.whitehead@nhs.scot

How things have changed in the past year! I have been a staunch supporter and advocate of in-patient rehabilitation being the gold standard for amputees for 25 years......so when COVID-19 hit in March 2020 and we lost all our amputee rehabilitation beds, we had to look at a new service model to allow us to continue to deliver the excellent service we seek to provide for our patients.



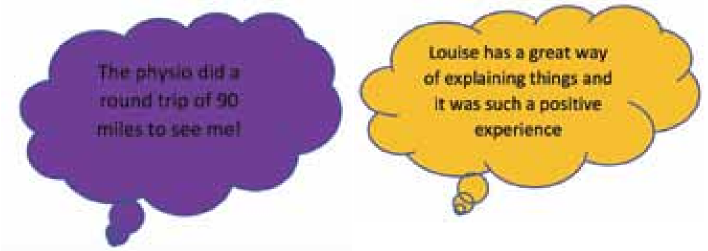
Armed with my new rucksack full of tools, stump socks, dressings, patient information packs and leaflets....and of course PPE, I set off on my travels. A huge catchment area covering Fife, Angus, Dundee and Perth & Kinross – some days covering 150 miles.

To date I have seen 48 patients in the community, the majority for prosthetic rehabilitation but a wide range of other treatments as per Chart 1.

Average number of physiotherapy outreach sessions was 2 per patient, with a range of 1-5 treatment sessions. 11 patients were referred to the Community Rehab Team in particular those requiring extensive input

to achieve their goals. This involved a joint session to handover and I would remain available if required for specialist input in future.

A patient satisfaction questionnaire was sent out and results were excellent. Patients are very appreciative of the support and rehabilitation in their own environment during these difficult times.



Driving around this beautiful country with my music blaring, singing to my heart's content; early morning beach walks or a wee post-work wild swim (my new lockdown activity!)

Some of the challenges I have faced are included in Chart 2. Lack of available toilet facilities, Google maps, challenging weather......and animals! Sorry to all you dog lovers but I don't like being jumped on and licked when trying to work! So, I ask that patients keep their dogs in another room! Little did I know I was going to come across snakes in someone's living room and a rabbit nibbling my patient's foot as she was side stepping in the kitchen. Oh and the time I was late as I had to wait for a field of cows to be moved to another field down the road!! Snow was a challenge in February as I had to park on main roads and hike in!

I have thoroughly loved the challenges of my new Team Lead Amputee Outreach post. The rehabilitation is very focused and relevant to the patient and their environment. Problem solving and being resourceful with what household items can be used as adjuncts to exercise / rehab. Family members are present to act as support and motivation. Patients are so appreciative of the effort to go to see them and although my 15 hours are not enough most weeks, I am happy to do extra hours at the moment and train other staff up to support in future......so that when my campervan arrives, I can start my part-time semi-retirement in the summer.

Beneficial Effects of Psychological Support for an Amputee – A Case Study

Charlie Crocker, Specialist Physiotherapist in Amputee Rehab and Dr Nicola Murphy, Clinical Psychologist , Artificial Limb & Appliance Centre (ALAC) Swansea

Introduction

Historically, there has been no clinical psychology provision at the ALAC Swansea. A 15 hour Clinical Psychology post was developed which Dr Murphy took up in September 2019. This poster highlights the impact psychological support can have on the amputee patient and their rehabilitation.

Patient LL is a 42 year old man, with a medical history of asthma, anxiety, intermittent claudication and recreational drug use (cannabis). He was referred to the ALAC in November 2018 after a trans-tibial amputation following a bi-femoral bypass in October 2018. LL fell onto his residuum in December, post hospital discharge, which lead to revision surgery on his residuum.

Prior to the amputation, he was living with his partner and two young children. After discharge from hospital post amputation, they separated and he went into an adapted flat, where he currently resides. LL attended the ALAC Consultant Clinic in April 2019 and was deemed appropriate for prosthetic rehabilitation. He attended 7 early rehab sessions (PPAM aid and general fitness) prior to prosthetic assessment and fitting. He then attended 10 prosthetic rehabilitation sessions but failed to attend 13 rehab sessions. "My mind is elsewhere", "I've got too much going on" were frequently used reasons as to why he could not attend physiotherapy.

Method

Due to LL's physiotherapy attendance being sporadic, it was considered that psychological input may be beneficial to support his engagement in physiotherapy. LL attended an initial appointment with Dr Murphy in January 2020.

During January and October 2020, LL attended a total of 15 psychology appointments. These sessions comprised of psychological support to enable him to reflect on the impact of the amputation. In addition, he was supported to develop coping strategies in relation to mood, anxiety and self-confidence, based on the principles of Cognitive Behavioural Therapy and Acceptance and Commitment Therapy.

Towards the end of psychology sessions, LL felt that his mood, anxiety and self-confidence had improved as a result of psychological therapy, so that he felt in a position to re-engage with physiotherapy in September 2020.

Results

LL was initially anxious about the prospect of engaging in psychology sessions, as he had not previously received psychological support and did not know if it could be beneficial. However, he engaged well and a therapeutic rapport was established which enabled him to develop trust and commit to therapy. He reported that sessions helped him to make sense of his difficulties and he was able to take on board strategies suggested. He stated that psychology sessions enabled him to change his way of thinking, and to develop psychological resilience to support him to re-engage in prosthetic rehabilitation.

After 4 further physiotherapy sessions, LL was safe and independent with a RZF and was able to take his prosthesis home. He remains on the RZF but is under regular review via physical and virtual appointments.

Conclusion

This case demonstrates the value of joint work between physiotherapy and psychology in leading to a positive outcome.

It is acknowledged that LL has the potential to achieve a higher level of activity and that he could be independent with his mobility. However, given his medical history and social setup, he is content with his mobility and can re-engage with physiotherapy when he is ready.

LL has reported that without Dr Murphy's input, he would have not completed his rehabilitation. It is now standard practice that all patients at the ALAC are routinely screened for psychological difficulties and referred to psychology if required.

This highlights the importance of psychological input at the ALAC and the need for psychological provision to be maintained and potentially expanded with additional sessions.

PROFILE PAGE
AN INTERNATIONAL MEMBER

Milutin Radotic BSc
Physiotherapy Team Lead Physiotherapist
Hospital for Rehabilitation and Orthopedic Prosthetics in Belgrade, Serbia

I work as a Team Lead physiotherapist in the Specialized Hospital for Rehabilitation and Orthopedic Prosthetics in Belgrade, Serbia. The hospital serves a population of around 2 million people in and around the country's capital. With 160 beds and 38 therapists (of which 6 are occupational therapists), it is the largest acute setting hospital of its kind in the region. Right now in the COVID-19 pandemic we are working at half capacity.

The hospital houses an amputee rehabilitation centre as well as a workshop for the manufacture, assembly, adjustment, and repair of prostheses. The hospital is mainly funded by the National Health Insurance Fund of the Republic of Serbia. It collaborates closely with various national healthcare institutions, as well as a private sector that supplies more sophisticated prosthetic parts. The National Healthcare Insurance system covers the cost of rehabilitation and standard grade prosthetics to all citizens requiring it, and there is also the option of upgrading to more sophisticated prosthetics via a private co-financing scheme.

I have worked long enough to witness dramatic changes in the field of prosthetics. I obtained my diploma in 1995 and my BSc degree in physiotherapy more recently, once this qualification became available in my country. I remember a time of wooden sockets and woollen socks; now I am able to gain experience in new trends like osseointegration and neuroprosthetics. We are working in a well-organized MDT and using up-to-date, internationally standardized tests (e.g . BACPAR Toolkit) for early amputee assessment, prosthesis prescription, rehabilitation follow up and final evaluations of recovery.

I became acquainted with the work of BACPAR through my desire to remain up-to-date with new trends. As an international member, I regularly read our journal and visit the BACPAR website in order to access guidelines pertaining to best practices when working with amputees. This information I also share with my colleagues on a regular basis and, as a result, my team and I have been able to improve our practice. Our patients are not only able to get the most out of their aids, but they are also finding it easier to accept their new reality. As a physiotherapist, I feel great satisfaction when I see my patients successfully navigating around various life challenges with their new prostheses.

FINDING YOUR FEET.....LITERALLY!

During the month of February, Scottish amputee charity Finding Your Feet rallied their network to form teams and take over 2 million steps. Those taking part included the Finding Your Feet staff, long-time supporters, local businesses and some amputees who themselves have benefited through the charity. Together, they took 80 million steps and raised over £23,000 for the charity.

Valerie Murray, who lost her leg below the knee in late 2018, said of the challenge:

"It was a great achievement for me as it spurred me on to walk further and revisit walks I haven't done in over 7 years and didn't think I was capable of doing."

Finding Your Feet supports those with limb loss and limb absence through a variety of physical and emotional activities and services. During the COVID-19 pandemic they have provided a full curriculum of virtual activities and a volunteer phone service to reduce isolation.

The total raised is currently going towards the services offering during lockdown. These include virtual fitness and friendship classes as well as wellbeing phone calls to amputees across the country and Finding Your Feet's counselling service.

www.findingyourfeet.net

Save the date…..

The 2021 Vascular Societies Conference Manchester is scheduled for 1st- 3rd December, with the BACPAR programme on the 1st and 2nd if it is face to face. More details to follow……

VASCULAR SOCIETY
The Vascular Society for Great Britain and Ireland

PRIZES!

After counting your online votes, the daily £75 Speaker's Awards for BACPAR at the Vascular Societies Conference 2020 went to:

Sue Ward and Hayley Crane

Neil Hopper (Donated to Steel Bones)

Mr Mannion and Mr Ayyaswamy (Donated to Feet First)

Trent Region Report March 2021

Meetings continue 3 monthly – we are introducing a problem solving section as we are of very diverse experience and location work - centres / DGH / new community outreaching - which provokes some interesting discussions.

Wendy Leonard

Trent Regional Rep

wendy.leonard@ulh.nhs.uk

SUE'S PUZZLE CORNER

1) How are you at cryptic crossword clues?

- "Eat 'em up," snarled man with frostbitten toes, once? (7)
- Alternatively - where an amputee might wear a wedding ring (2,3,5,4)

2) What is the longest word you can make with the letters of 'AMPUTEE'?

3) Quiz Question: Who was the first amputee Olympic runner?

See below for the answers

West Midlands Region News

The West Midlands have scheduled a regional catch-up by Zoom for Thursday 18th March 2021.

The meeting will aim to give our members a chance to share service changes as a result of COVID-19 restrictions. We also plan to discuss any service reviews or documentation changes needed to evidence good practice as a result of the publication of the updated Prosthetic Guidelines.

Louise Tisdale

SUE'S PUZZLE CORNER ANSWERS

1) 'Amputee' & 'On the other hand'

2) *6 Letters:* **Metepa** - A chemosterilant with the capacity to restrict ovarian development

5 Letters: **Etape** - A stage or leg of some sort e.g.in a cycle race

5 Letters: **Taupe** – Grey with a tinge of brown

3) Oscar Pistorius

BACPAR gave a donation of £250.00 to the David Nott Foundation in grateful thanks for his lecture at the November 2020 Vascular Societies Virtual Conference. We received the following letter of thanks.

David Nott Foundation
48-49 Princes Place, London W11 4QA
020 7118 0605
www.davidnottfoundation.com

November 2020

Dear BACPAR Treasurer,

Thank you so much for your donation to the David Nott Foundation. We are most grateful to have your support and I welcome the opportunity to tell you what your contribution will help us achieve.

Our training provides local surgeons working in war and natural disaster zones with the specialist skills they need to work in these challenging conditions. Critically, these skills enable them to save more lives. To date, we estimate our training has benefited over two million patients worldwide.

Foundation surgeons share the knowledge and expertise they gain with other local health professionals working on the ground thereby leaving a legacy of education and improved health outcomes. Since the Foundation started five years ago, we are proud to have trained 803 surgeons from all over the world including Syria, Iraq, Libya, Yemen and Lebanon.

In every war zone David has worked in, medical care provides one of the few rays of hope for the people remaining in bombed-out towns and cities. By supporting the Foundation and training more surgeons you are helping to protect that hope whilst improving the health outcomes for vulnerable people in some of the most dangerous and disadvantaged places in the world.

If you would like to hear more about our work and get our latest news, please subscribe to our e-newsletter www.davidnottfoundation.com and follow us on Twitter, Facebook and Instagram.

Sincerest thanks once again.

Best wishes

Rebecca McLoughlin (Head of Supporter & Donor Relations)

Where are they....?

As you can imagine our Regional Reps, along with all of us, are tied up with the business of the pandemic at the moment so no full Regional Reports Page this time round.

STEEL BONES

Steel Bones is a registered UK charity helping amputee families live life to the full, helped by a proactive supportive peer community. The support we provide empowers the amputee and their family and friends helping in moments of stress and crisis. Steel Bones has a year-round calendar of regular social events for amputees and their families. Passionate about inspiring the next generation and the wider public to be fully inclusive, Steel Bones provides engaging awareness workshops for primary schools and publishes children's books featuring amputee families in settings familiar to all readers, young and old.

Steel Bones is community-based and demand-led; it provides direct support where there is a geographical or service need and provides advice, guidance or signposting to relevant services to help amputee families navigate the complex, and often confusing, amputee support landscape. Our telephone support service, the Bones Line, our website and online community help support amputee families across England and Wales, while our local, volunteer-led, Steel Bones' hubs work on the ground with amputee families in their own communities.

Steel Bones Helps Amputee families live life to the full with:

✔ 121 Family Support – Free Support Packs, information, access to benefits support, support phone line

STEEL BONES
FOR CIVILIAN AMPUTEES
www.steelbonesuk.co.uk

✔ Free Events – School workshops and children's books for amputee families by amputee families

Here are some examples of the work we have been doing – it is important to note that we do not give out grants or money to families but we rather source funding where we find a need and then deliver projects or purchase items on that grant's behalf to support the family:

■ Several members have had problems with prosthetics and provided peer support to one another with all sorts of tips being shared

■ Each amputee family is welcomed by a family mentor who can then match them up with other amputees in their area and support one another

■ A new amputee and her family of 6 had no access to food deliveries whilst they are shielding. We connected them with the local volunteer hub, who were able to collect medications, run errands. We also connected her to the supermarket's head office to secure priority deliveries. This helped the family catch a breath and feel able to push themselves through this horrendous time. We have been working with local Councillors, MP and OT services to ensure this amputee can get around her home safely as she was discharged from hospital with no OT assessment

■ Helping members access equipment and assessments via occupational assessments. Helping families ensure they receive urgent priority when there is no access to their bathroom. Currently working with several families who have been left with no access to bathroom facilities for months

■ Sourcing funding and completing applications for equipment amputees need when social care budgets cannot stretch

■ One of our amputee families welcomed a new baby daughter during lockdown and are now shielding with no access to food deliveries and no income due to benefits changeover. We worked with them to get the Councillor involved who ensured foodbank and Babybank parcels, collected medicine for them. He has been key to supporting them through these times as well as many of our members attending our coffee catch up cheering the family through this horrendous time

■ Providing gym equipment to an amputee struggling without access to our fitness clubs and sending an Amazon book voucher for his wife to help give her some time out

■ We have been helping many amputee families access the Council Tax Reduction Scheme and many have received a refund as well as saving money each month

■ Helping a single mum amputee with two young, active boys: her parents are a massive support but currently isolating themselves. With the COVID-19 funding we were able to provide a sand-pit, toys and crafts to help her entertain them and give her some much-needed time out

■ Securing successful PIP application after gentleman had his car - a lifeline for any amputee family - wrongly removed. He had attempted to regain it several times and our wonderful benefits expert got this sorted!

Website https://steelbone.co.uk/

Factors Affecting Mental Health Following Upper Limb Amputation: A Literature Review

University of Strathclyde
Engineering

Bethany Darlington, Christine McMonagle, Sarah Day
Biomedical Engineering, University of Strathclyde
Corresponding author- sarah.day@strath.ac.uk

Introduction. Undergoing an upper limb amputation (ULA) has many effects on mental health and quality of life (QoL), and several factors may increase the risk for someone with an upper limb amputation to develop a mental disorder.

- Several studies investigating age and mental health found no direct link between them (Mirowsky and Ross, 1992; Blazer et al., 1991).
- Other conditions may also negatively affect mental health, and as said by Osborn (2001), 'Physical health is inextricably linked to mental health, and physical illness may cause psychiatric symptoms."
- Multiple studies show that the existence of pain worsens mental health. More than 1 pain condition, and multiple sites of pain have been seen to be related to disorders of mood and anxiety (Gureje et al., 2008).
- Women have been seen to be a more at risk of depression than men, and this may also be true in the upper limb amputation population (Harvard Health Publishing, 2011).
- Time, aetiology of amputation, level of amputation, and number of amputations may also contribute to mental health disorders.

Methods.
A literature search was conducted using the keywords in the table below.

Keywords	
Amput* AND	Anxiety OR Depression OR Mental Health

Table 1, Keyword and Boolean operators

The process of inclusion and exclusion of search results is shown in the Prisma diagram to the right.
After reaching the final number of 19 papers, the *CARS* grading system was used to determine the quality of the papers.


PubMed (n=50)
Biological Science Collection (n=54)
Medline (n=46)
PsychInfo (n=30)
Total papers before exclusion (n=180)
Initial inclusion/exclusion criteria applied
72 discarded
- Non-human subjects
- Not amputation
- Bodily amputations other than limbs
- Limb salvage
- Not mental health
- Amputation not as a cause
- Mental health in caregivers
- Reviews

108 included
- A ages
- All publication dates
- Lower and upper limb amputation
- All aetiologies
- QoL after amputation
- Mental health/depression/ anxiety after amputation

71 discarded due to further exclusion criteria
- Purely lower limb amputations

37 suitable for review
18 discarded
- Full text unavailable
- Not available in English
- Duplications

Total final papers (n=19)

Figure 1, Prisma diagram

Objectives.
- Find results to support or deny the statements in the introduction
- Discover clear correlations between varying factors and the mental health of individuals with a ULA
- Conclude on the effect of certain factors and have a clearer prediction of those at more risk of developing mental disorders after a ULA

Results. The table below shows significant results found.

Factor	Results	Author/s
Age	More anxiety in ages 18-38, and more depression in ages 60-80	Padovani et al. (2015)
	Link between age and mental health unclear, however higher disability associated with older age and lower mental health	Postema et al. (2016)
Other health conditions	1 comorbidity increased risk of depression, and 2 comorbidities increased it further	Darnall et al. (2005)
	Higher number of comorbidities associated with worse QoL	Epstein et al. (2010)
	Lower life satisfaction correlated with short- or long-term complications	Østile et al. (2012)
	Uncertain link between musculoskeletal complaints and lower mental health	Postema et al. (2016)
Pain	Levels of depression significantly correlated with perception of pain	Bhutani et al. (2016)
	Phantom limb pain increased levels of anxiety	Padovani et al. (2015)
	Worse back pain, being bothered by pain, residuum pain, and phantom pain increased risk of depression in all ages	Darnall et al. (2015)
	Worse QoL reported in individuals with phantom pain, chronic pain and back pain	Epstein et al. (2010)
	Higher prevalence of anxiety in those with chronic pain than in those with phantom pain	Kazemi et al. (2013)
	Those with phantom pain have higher incidences of depression, suicidal thoughts and self harm	Østile et al. (2012)
	No correlation between pain and emotional distress	Fisher and Hanspal (1998)
Level and number of amputations	Prevalence for depressive symptoms was 29.8% in above elbow, 31.1% in below elbow, and 50% in bilateral	Darnall et al. (2005)
	No bilateral amputees used psychological or psychiatric treatment, but 18.7% of those unilateral used at least one	Østile et al. (2012)
	Significantly better QoL in those with multiple limb loss than those unilateral	Epstein et al. (2010)
Time	Depression decreases with time	Bhutani et al. (2016)
	Slight decrease in anxiety with time	Marina et al. (2013)
	Highest mental health clinic usage in the first year	Melcer et al. (2020)
Aetiology	Significant percentage of those with moderate or severe depression suffered from work-related amputations	Ide (2011)
	Highest levels of depression reported in those with trauma-related amputations	Darnall et al. (2005)
	Traumatic amputations increase risk of suicidal behaviour	Vázquez et al. (2018)

Table 2, Key findings

Conclusions.
Within the papers analysed, the following factors clearly affected mental health in the subjects:

- Phantom limb pain and other types of pain worsened mental health
- The presence of other health conditions worsened it
- An aetiology of trauma puts the individual at more risk of mental disorders
- As time after amputation increased, disorders such as depression and anxiety decreased

Several factors that were not supported by enough studies to be suitably applied to the wider population were:

- Age
- Sex
- Number of amputations
- Level of amputation
- Income
- Occupation
- Marriage status
- Living location and environment

More research is needed on this topic to determine whether these factors play a significant role in the mental health of an upper limb amputee.

Each individual has unique circumstances and their own experience of their situation. This means that some will follow the trends shown, but there will always be anomalies in the psychological responses to an upper limb amputation.

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What management approaches do physiotherapists select when assisting patients to manage phantom limb pain?

Benjamin Herberts (BSc, MSc Physiotherapy, CSP, HCPC)University of Cumbria-Msc Physiotherapy. Dorset HealthCare University NHS Foundation Trust

Background

In 2012, the CSP highlighted several research priorities in physiotherapy services including investigating treatment modalities for patients with phantom limb pain (PLP). PLP incidence is reported to affect 60-90% of people after amputation.

Phantom Limb Pain (PLP) was believed to be discovered by a French military surgeon named Ambroise Paré in the 16th Century (Nikolajsen and Jensen, 2001). Physiotherapists are encountering people with amputations regardless of the area of specialism due to the increasing number of amputations (Hippisley-Cox and Coupland, 2016). Improving knowledge of factors that contribute to PLP can contribute to new and improved therapies (Ephraim *et al.*, 2005). The prevention of PLP by peripheral analgesia has not yielded consistent results (Flor, 2002). Physiotherapists need to contribute to PLP management, the rationale around research regarding PLP and its treatment provides additional information on current treatment selection and effectiveness. Justification can be compared to recent evidence and professional guidelines, which will further understanding into why physiotherapists select certain treatments.

Objective

The primary objective was to identify the current available management options for PLP being prescribed in clinical practice by physiotherapists. The research investigated if treatment selection differs between physiotherapy banding, NHS or private and if guidelines are used.

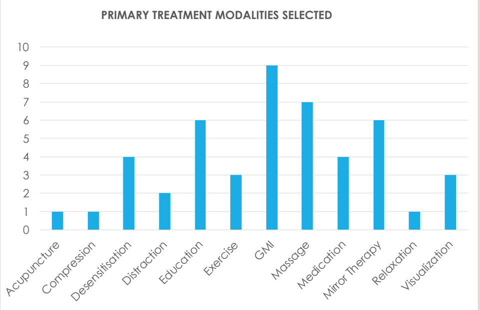
Method

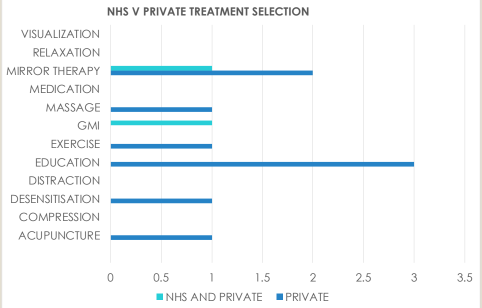
Mixed method approach. All participant completed the same 17-question survey that covered physiotherapy demographic information, PLP treatment selection and clinical reasoning for treatment selection. The survey was advertised via BACPAR, PACE and CSP and completed anonymously. Results were analysed via thematic analysis and a chi square test conducted on a proportion of data.

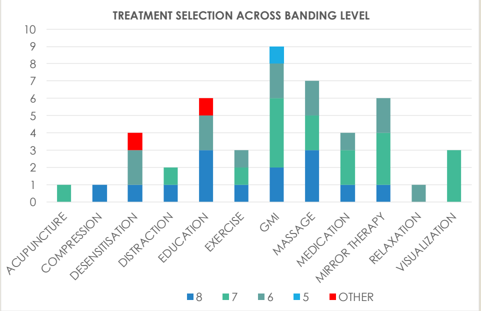
Ethics- Ethics approval was granted through the University of Cumbria Ethics approval board.

Results

18 treatment modalities were identified. 10 different primary/preferred treatments selected. No statistical significance between NHS/private and treatment selection. Four themes emerged for clinical reasoning of treatment selection.







Conclusion

Despite a small sample size a range of treatment modalities were identified for PLP management. The research highlights the need for an individual tailored approach to PLP management and indicates further research is needed to develop guidelines and knowledge on effectiveness of varying treatment selection.

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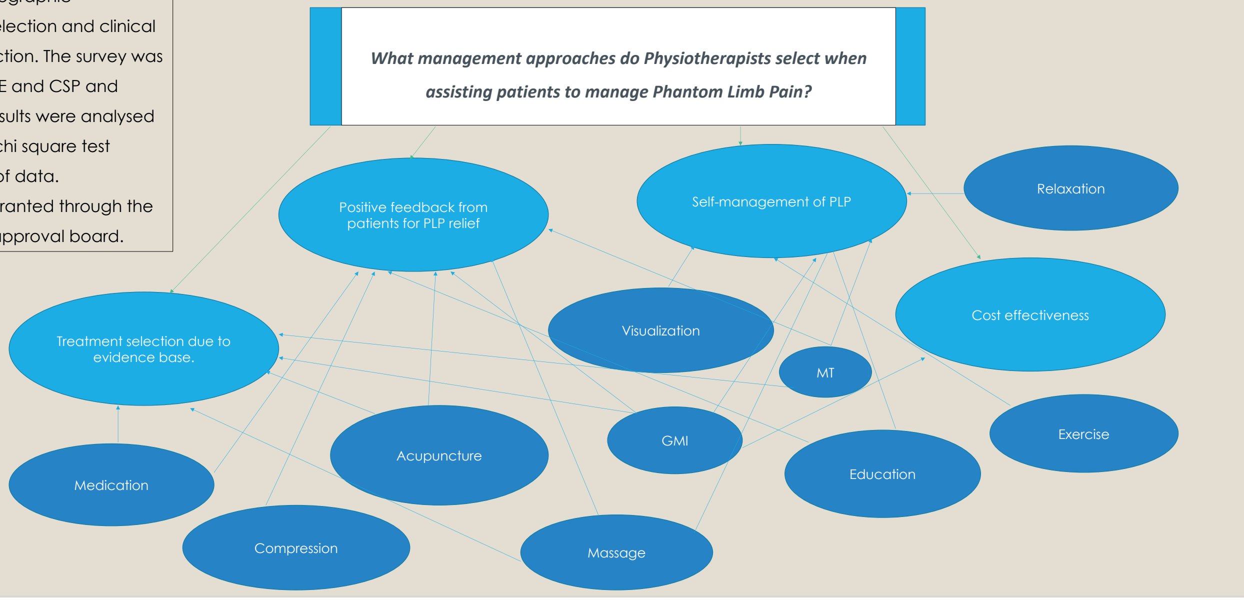
I would also like to thank my fiancé (Mica) and my parents (Debbie and Kenny) for their endearing support and encouragement throughout writing this research


What management approaches do Physiotherapists select when assisting patients to manage Phantom Limb Pain?

Positive feedback from patients for PLP relief
Self-management of PLP
Relaxation
Cost effectiveness
Treatment selection due to evidence base.
Visualization
MT
GMI
Exercise
Acupuncture
Education
Medication
Compression
Massage

VASCULAR SOCIETY

NHS Gloucestershire Hospitals NHS Foundation Trust

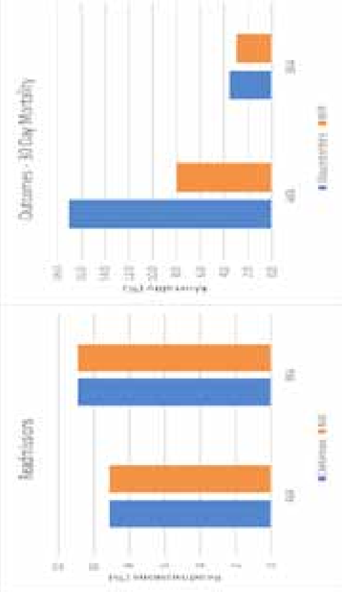
Audit of Outcomes for Major Lower Limb Amputations

J Fisher, SR Kulkarni, S C V Paravastu

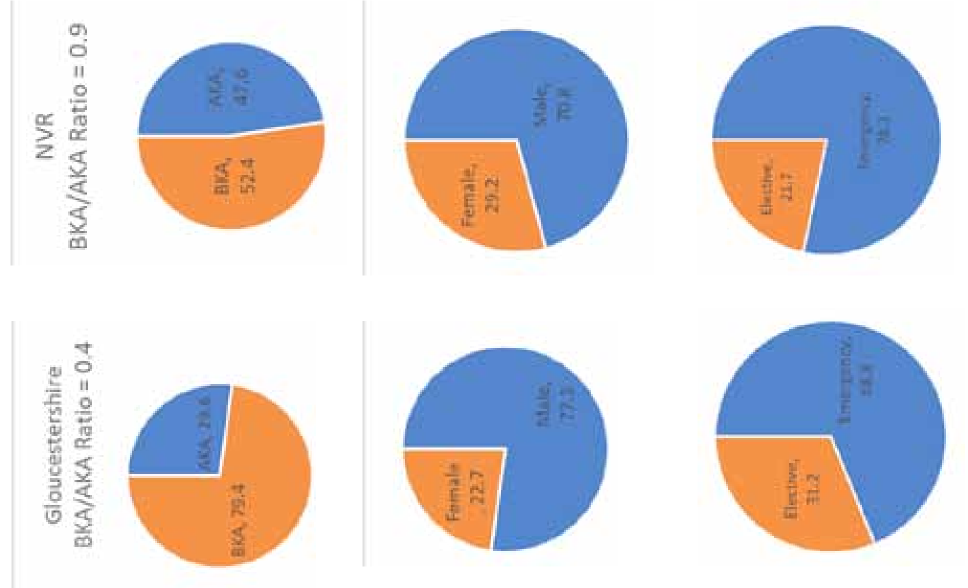
Introduction: Patients undergoing major lower limb amputations are frail and have extensive co-morbidities. We aimed to assess outcomes of major lower limb amputation in our Vascular Network.

Methods: All consecutive major lower limb amputations between 2014 and 2018 were included.

Patient demographics and co-morbidities and mode of admission were reviewed. Overall mortality and length of stay were the primary outcomes.



Results: Group Comparison



Results:

Of 199 amputations performed; 59 were above knee amputations (AKA) and 140 below knee amputations (BKA); with an AKA to BKA ratio of 0.4; compared to 0.9 nationally.

154 were males and 45 females with a median age was 71 years(range 44-92). Whilst 62 were performed as elective surgery 137 were emergency.

Whilst overall 30-day and 1 year mortality for BKA were 3.6% (5/140) and 20%(29/140) respectively; for AKA the mortality rates were 17%(10/59) and 39%(23/59) respectively. Median length of stay was 15 days(range 3-115). 30-day readmission rates were 9.1% and 10.9% for AKA and BKA respectively.

Conclusion:

Our audit results show that our network's mortality was better compared to the national average for BKA. Although AKA to BKA ratio was much better than the national average, mortality outcomes of AKA were above national average and needs to be addressed.

IN THE FITTING ROOM

Nicola Lane

I have been a practicing artist since 1972, and over the years my work has evolved from painting into different media and film.

In my second term at Art School in January 1968, I lost my lower left leg when I was run over by a number 11 bus in Trafalgar Square. In the Women's Orthopaedic Ward in Old Charing Cross Hospital, I made drawings and tested the patience of the nurses by spilling black ink on the sheets. I drew my fellow patients and my first visits to Roehampton Limb Fitting Centre. But these drawings vanished from my portfolio submission for a BA course. I never found out who removed them - it was probably my mother, who found them distressing. I began to realise that people did not want to see or hear about these experiences. It was not until 1999 that attitudes had changed enough for me to begin to make work that communicated my experience of limb loss and prosthetics.

From the beginning of my journey as an amputee, I was fascinated by the creative, problem solving process of rehabilitation and prosthetics. I can remember every detail, every nurse, physiotherapist, prosthetist, and every doctor from my 20 years at Roehampton Limb Fitting Centre, and my 33 plus years at the Prosthetic Rehabilitation Unit (PRU) at the Royal National Orthopaedic Hospital, Stanmore (RNOH).

Roehampton in the late 1960s and 1970s was a very masculine world, with rehabilitation represented by WW2 wounded veterans. It was dominated by the stiff upper lip ethos and expressing your feelings as a patient was discouraged. But at the same time, the prosthetists (who were called 'Fitters' in those days) were highly skilled and I learnt so much from Mr. Bradford and Mr. Garnish, as they worked with me in the fitting room to craft a comfortable 'Patellar Tendon Bearing' prosthetic limb -I wore Mr. Garnish's leg for many years and was still wearing it in 1985 when my son was born!

I realised that most people had no idea that if you rely on a prosthetic limb for your everyday mobility, then you will need to visit a limb fitting centre throughout your whole life. The Centre is as important to you as your work, family, and friends. All your life you will experience the challenges of the fitting room where you work with your prosthetist to try to achieve a successful prosthesis - and I wanted to communicate this in my work.

IMAGE 1 In the fitting room. The Fitting Room film still / Nicola Lane 2013

In 2009 at the Stanmore PRU, discussions in the women's fitting room revealed that many of us wanted to meet up more often because we gain so much from talking to each other, and outside the fitting room there are so few opportunities to share our lives. Social media was not part of our lives, as it is now. Two women, Jane MacLaren and I, decided to set up regular meetings.

Jane put up posters in the fitting room and collected some contact details. We managed to get a 'Kings Fund' meeting room at the nearby Aspire Centre and put up big arrows showing the way. Nobody came. We sat there, drinking coffee and waiting...Nothing happened, so Jane decided to start a Facebook group, a closed one just for the women we met in the fitting room. Why? Because we feel vulnerable sometimes. The things we talk about and share must happen in a safe place, where we are neither isolated nor ashamed, and where we do not need to pretend. We called this group the Fitting Room Friends (FRF).

In 2011 Dr Andrew Murrison published his report into prosthetics, and in response the FRF decided that making a film about our experience of prosthetics might encourage amputees to gain inspiration and support from each other, as well as bringing the reality of prosthetics to a wider audience. So, I applied to the Big Lottery Fund's Awards for All, and in April 2012 we heard our bid had been successful.

Jane and I held a meeting with other members of the FRF to identify key issues – body image, response of family and friends, clothes, shoes, swimming, and the complexity of achieving a well-fitting socket. Five members of the FRF agreed to be filmed and interviewed.

The PRU team generously gave us their support, and I was able to schedule afternoon shoots and interviews in the fitting room. Our clinicians and prosthetists also agreed to be filmed - what a great example that was of collaboration in a busy and challenging hospital setting. The PRU's manager and staff had initially expressed worries about the filming, and I had to reassure them that it was not a journalistic hatchet job on NHS

IMAGE 2 Swimming pool fun. The Fitting Room film still / Nicola Lane 2013

prosthetics, but a representation of the fitting room from the users' point of view. Fear not the point of view!

I was fortunate to have a wonderful (pre-Brexit!) film crew - Finnish cinematographer Joni Joni Juutilainen and Dutch Assistant Director Marga Doek. Their ideas and technical expertise helped me to visually communicate a complex and often challenging subject - including Joni squeezing himself and his camera behind a chair in the fitting room to film the prosthetist from the point of view of the patient during her fitting session! This resulted in one of the most important moments in the film, where we witness the distress of both prosthetist and patient, when a new socket proves to be unwearable.

We communicated how much work and skill is involved in enabling mobility; that everyone is different and what works for one person is unsuitable for another; and that there can be many 'failures' and disappointments for both prosthetist and patient.

Another important aspect was the richly creative collaboration with the five amazing women participants. They expressed and performed their lived experience of limb loss and prosthetics with humorous, moving, and profoundly insightful moments- including our version of the 2012 Olympics Formation Swimming team, a 'raid' on the Prosthetic Sock Cupboard, and sharing their trauma in a creative and beautiful way.

In February 2013 THE FITTING ROOM film project was shortlisted for the Big Lottery 'Communities in Focus' photo competition. One of the selected images (Image 3) is where we see the sound recordist prepare a participant for her scene saying farewell to the clothes she can no longer wear after her amputation.

In July 2013 we screened the 'premier' of THE FITTING ROOM at the Herbert Seddon Teaching Centre at the RNOH. The 200 strong audience laughed, listened, gasped, and applauded long and loud. It was thrilling to realise we had succeeded in communicating something of our personal experience of prosthetics. A member of the audience from another Prosthetics Rehabilitation Centre wrote:

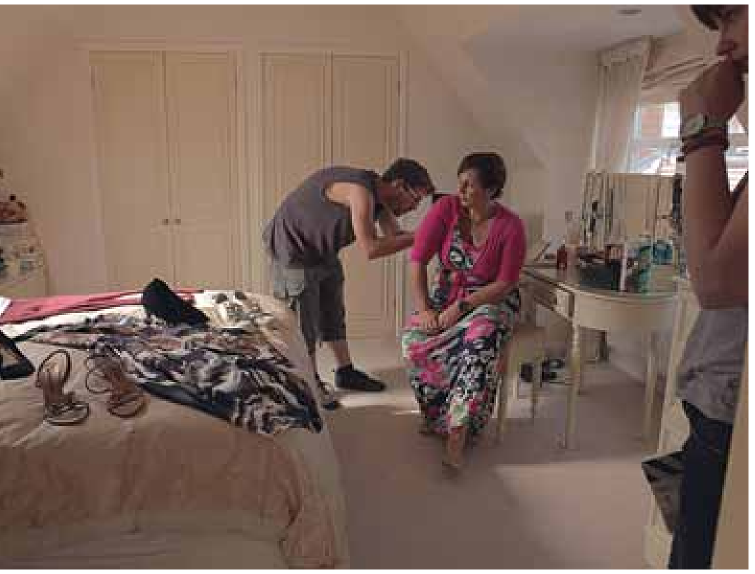


IMAGE 3 Farewell to stilettos. The Fitting Room film still / Nicola Lane 201

IMAGE 4 At home. The Fitting Room film still. / Nicola Lane 2013

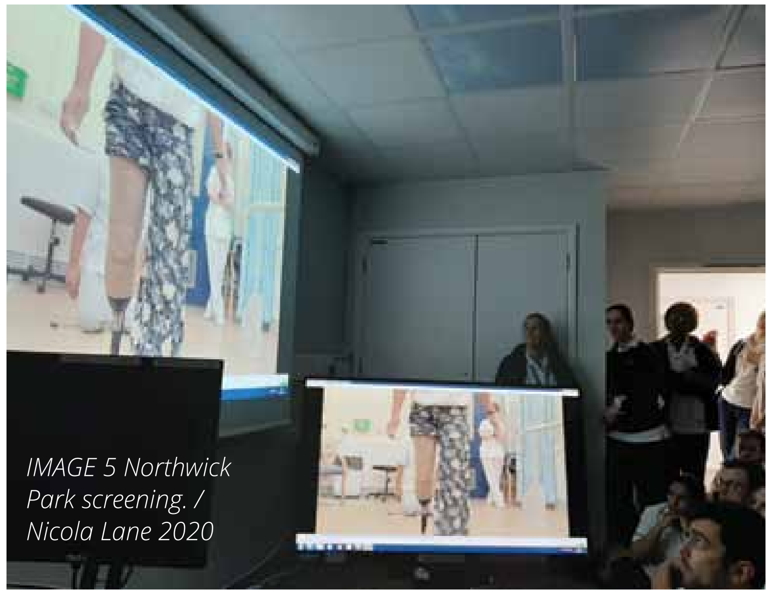


IMAGE 5 Northwick Park screening. / Nicola Lane 2020

"Having spent many hours in fitting rooms over the last 26 years I felt a deep connection to the ladies in the film...I felt this particularly with the lady who felt she had to keep her leg on even when she was exhausted as her family preferred to see her as 'normal'. It is sometimes easy to overlook the impact that an amputation has on close family and friends, that they too have to come to terms with the huge changes amputation can bring, not only body image but what is physically achievable... "

In the audience was Senior Physiotherapist Jill Stokes, who had worked with two of the women in the film and like many of the health professionals watching the film, was affected by the power of the women's stories.

In 2020 Jill invited me to screen THE FITTING ROOM to physiotherapists, consultants and vascular teams in the Physiotherapy Department at Northwick Park Hospital.

This was an incredibly special and life affirming experience for me, to have such a receptive and enthusiastic audience:

There was great feedback, and Jill Stokes commented:

"... being a physio to two of the ladies made me reflect again on my practice, and indeed I am a better therapist for understanding a little more of the inner thoughts of the amputee. It is so easy for us to assess, treat and discharge and move on to the next; I now am much more using the words 'adapt and change' rather than 'getting better and back to normal'..."

Looking at these photographs of the wonderful Northwick Park audience is very poignant, because soon afterwards COVID-19 put the hospital and its teams under intense pressure. Making THE FITTING ROOM taught me so much about the positive effects of creatively expressing trauma and difficult experiences - I hope that in the future they too can somehow represent and share the trauma and difficulties from this time.

The legacy from THE FITTING ROOM project continues. During the creation of the film, a core group became actively engaged in development, screenings, and establishing networks. FRF founder Jane MacLaren, together with participant Sandra Staffiero, established links with a wide range of amputee groups, including organising regular 'Big Meet Up' events. We have learnt that being better informed about prosthetics through peer support helps us to weather the difficulties and "failures"of our prostheses, as well as helping us to engage in productive dialogue with clinicians.

Sandra and Jane went on to establish OPUS, a voluntary user group working alongside the RNOH Trust to provide an effective forum for all RNOH's, families and carers. When COVID struck and the meet ups had to stop, OPUS set up regular online quiz nights which are very popular as well.

I want to thank BACPAR for this opportunity to share the journey of THE FITTING ROOM and to thank every one of you for all the work that you do.

THE FITTING ROOM film was funded by Big Lottery Awards4All

THE FITTING ROOM project was nominated for the 2015 National Lottery Awards

https://www.biglotteryfund.org.uk/funding/big-stories/the-fitting-room

For more information:

https://peglegproductions.org/archive

IMAGE 6 Northwick Park audience. / Nicola Lane 2020

HAPPY 30TH BIRTHDAY DSC'S!

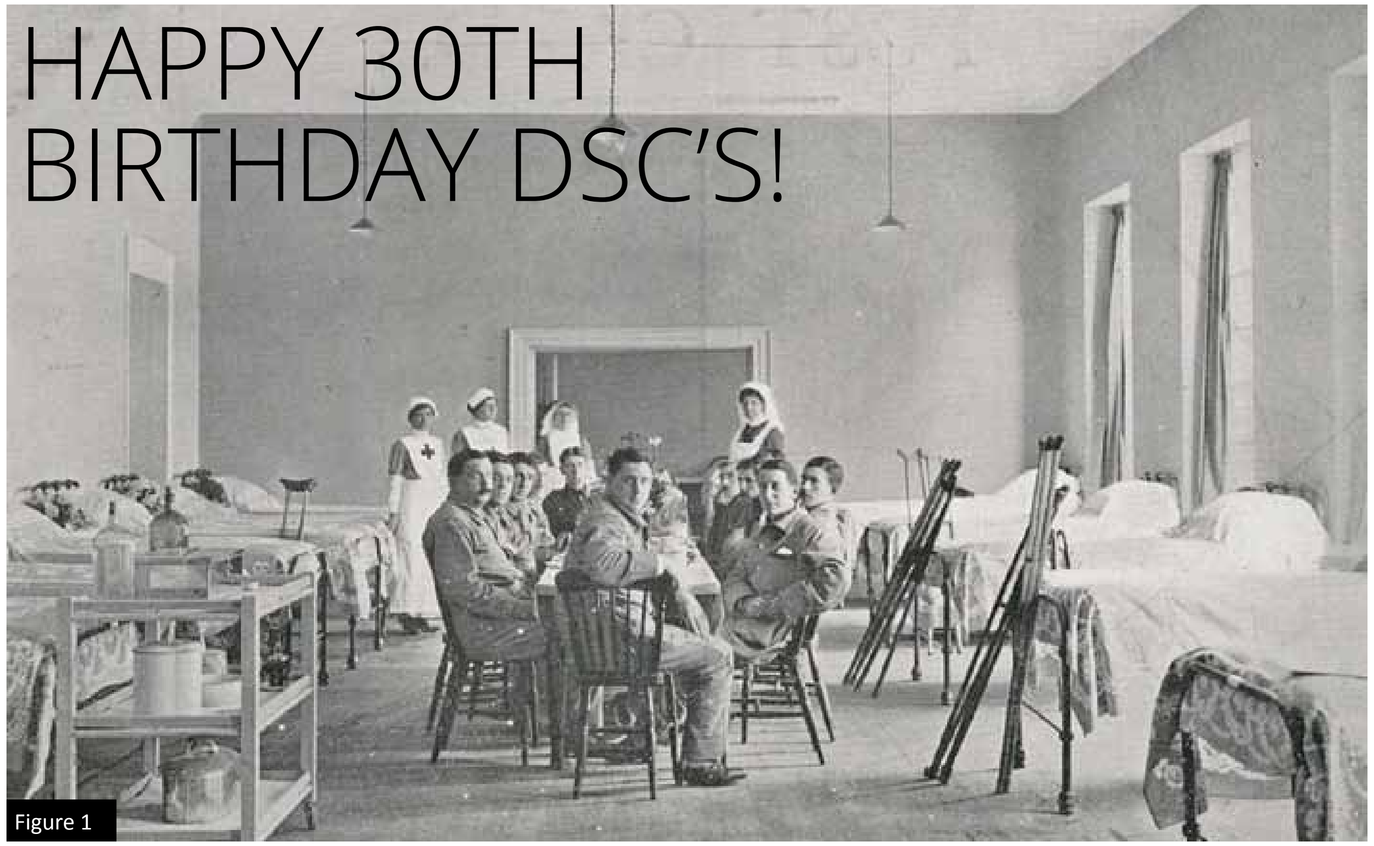


Figure 1

Sue Lein

BACPAR Treasurer / Joint Journal Officer

I was privileged to be the first ever physiotherapist at Gillingham Disablement Services Centre (DSC). Joining in 1991, this was a historic time in the provision of services to people with limb loss. Here is the history and some personal reflection in the 30th anniversary year of DSCs.

Before 1914, the number of people with limb absence or loss in the UK was small and those who survived amputation became mobile using crutches: few had artificial limbs as they could not afford to buy them.

During the First World War a 25-bedded hospital was opened for war amputees in Roehampton, known as one of 'Queen Mary's Convalescent Auxiliary Hospitals' for limbless soldiers and sailors (Figure 1). Other similar centres also opened throughout the country but as the artificial limb suppliers were not located near to the hospitals, users who needed limbs visited craftsmen in their limb shops. With the number of amputations during the war, these shops gradually moved into the grounds at Roehampton and the other centres to be nearer the patients. Small artificial limb suppliers at the time included Charles A. Blatchford (Figure 2), Gustov Ernst (who later evolved the company into Vessa Ltd) and two American companies, Rowley's and Hangers.

By the end of the war, 28,000 artificial legs and 12,000 artificial arms had been supplied by the government through the Ministry of Pensions. The basis of the prosthetic service in Britain that was to last until the 1980s, was now established. Surgeons supervised the limb prescription and fitting; some component parts were standardized and each level of amputation had one or two designs of limb that were appropriate for that level. Staff, both medical and administrative, became directly responsible to the Ministry of Pensions and responsible for other services related to the war pensioner, for example the orthotic or surgical appliance service and the issuing of invalid tricycles which also came under this Ministry.

The civilian's lot had however not improved. They continued to use 'peg leg' designs or to regain their mobility by using crutches. When they did receive an artificial limb, this was funded by either a charity or from a private source. With improvements in surgical techniques, care and drugs, the Second World War did not produce such an influx of amputees as did the First World War.

By the end of the war, 45,000 limbless war pensioners were being cared for by the Ministry of Pensions and the prosthetic company Hangers had the government monopoly for lower limb supply.

In 1948 the NHS was formed, and the 30,000 civilian users now also came under the care of the Ministry of Pensions. The prosthetic company Vessa Ltd was established at this time. Further centres, now known as Artificial Limb and Appliance Centres (ALAC), were opened under the directive of the Ministry of Pensions.

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LIGHT MODERN ARTIFICIAL ARMS AND LEGS FOR ALL AMPUTATIONS AND ALL SURGICAL APPLIANCES

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Figure 2

Figure 4

In 1953, following the abolition of the Ministry of Pensions, the services were transferred to the Ministry of Health, later the department of Health and Social Security. Artificial Limb and Appliance Centres (ALACs) included artificial limbs, wheelchairs, surgical appliances, supply of 'invalid carriage' vehicles (Figure 3) and artificial eyes, hearing aids, and home nursing equipment. By the 1960's they served a largely civilian population the majority of whom were elderly individuals with long-term conditions.

In 1984 an independent review of ALAC services was carried out under the chairmanship of surgeon Professor (now Lord) Ian McColl. It recommended a new management board should be set up to manage their efficiency and cost effectiveness. As a result, the Disablement Services Authority (DSA) was set up in England to manage the 49 Artificial Limb & Appliance Centres through regional and district health authorities by 1991. ALAC services were transferred to the NHS in England and the Welsh Health Common Services Authority (WHCSA) in Wales in July 1991.

Looking back to 1991 and the formation of DSCs, these were extraordinary times. The old ALAC Medical Officer was replaced with a Consultant post. For the first time other health-care professionals like myself as a physiotherapist were introduced into the newly named Disablement Services Centres (DSC's) – an amazing trailblazing job opportunity! To have uniformed healthcare staff in the building was completely new.

All the administrative staff who opted to stay, transferred into the NHS. I remember these times of a culture clash; admin offices in the newly named DSC were thick with smoke as staff smoked at their desks! Centre managers had never had such contact with clinical staff and we certainly talked a different language at times. Until quite recently the older staff, hospital porters, postmen etc. have still referred to the Gillingham DSC building as 'the ALAC'.

The changes in technology alone from those times to now is unbelievable. In the early 90's I was still dealing with the cumbersome handmade leather-corseted AK/BK Pylon with its wooden or beaten metal shin and foot. But the new world of thermoplastic material was just coming in. The new lighter – and so much more comfortable - suspensions replaced heavy, thick leather and metal belts. Running blades, intelligent knees and osseo-integration were still the thing of science fiction!

What memories do you have of these times? Do share them via our Letters Page.

The Friends of Queen Mary's Hospital have supported a special interest group 'Queen Mary's Hospital Archives and Museum Group' to collate an archive of the work at Queen Marys' Roehampton and this is available at https://archives.friendsqmh.com/

Figure 4

A DAY IN THE LIFE AT THE SPECIALISED ABILITY CENTRE, MANCHESTER

Adam El-Sayed and Sarah Bradbury
Physiotherapists

The mornings for the clinical team at The Specialised Ability Centre (SACM) start at about 7.45. Everyone arrives, some get changed out of their cycle gear or travel to work clothes while others play their part in the Length of the UK Virtual Challenge (Lands' End to John O'Groats). The Glucometer and resus trolley are checked then the mugs get lined up and the kettle goes on, ready for that all-important morning cup of tea or coffee.

At 8am the Physios, OTs, Nurses, Rehab Assistants and our Counsellor carry out the daily handover where we discuss all the patients coming through the clinics for primary, therapy and nursing appointments by 8.30.

Up until this time in the day, things seem as they have always done. Come 9am, clinics start and the team that are carrying out the face to face appointments head downstairs to don their full PPE ready for the first patient, whereas those that are making telephone appointments remain socially distanced upstairs in the office.

Primary appointments are all carried out over the phone with a full MDT present in the first instance, practice we have implemented in response to the pandemic. This process has introduced a new element of screening, enabling us to identify patients where it is clear they will not manage the demands of using a prosthetic limb, subsequently negating the need for a face-to-face (F2F) appointment. Conversely, those deemed eligible are offered a F2F appointment, once more with a full MDT present to complete a physical primary assessment.

Depending on clinician availability, there can often be numerous primary clinics operating simultaneously, for example one F2F and the other over the phone. Four 1-hour slots are available each morning primary clinic with two 1-hour slots available in the afternoon.

We are fortunate that we have a large gym at SACM which allows us to have up to 4 patients in the gym at one time while maintaining social distancing. The most noticeable difference is that each patient now has a dedicated member of staff treating them so that we are not moving between patients as we did pre-COVID, as well as this, family members are no longer granted access into the department unless there is a clinical need for their presence.

As a team we aim to eat lunch together, we are unable to eat in the staff room as pre-COVID due to room number restriction therefore we eat in the breakout area which is a large enough area to allow us to eat together without exceeding numbers, the doctors also join us for lunch.

The afternoon sessions tend to be slightly shorter with less appointments offered; it is usually the afternoon that any community visits are carried out and that clinical admin tasks are completed.

In late 2020, SACM adopted the Amputee Outreach Service which was previously delivered by the Vascular Team based at the Manchester Royal Infirmary, adding another branch to the service which we deliver. This outreach service enables us to review patients in the community more frequently and sometimes facilitate rapid response where required, extending our reach beyond our outpatient department.

As with most services today, we too have commenced the process to introduce video consultations through platforms such as Attend Anywhere. While the logistics of introducing this concept are on-going, many of our patients have expressed interest to be contacted through this medium and we are keen to discover the benefits of this method of consultations given the significantly hands on approach required in prosthetic and amputation rehabilitation.

Every month a representative from each profession will look at the clinics with a member of the admin team to ensure that there have been no changes to annual leave. There are team meetings to ensure that we are maintaining standards operationally. Infection prevention, hand hygiene, environmental and resus trolley audits are rotated between different team members so that we all have an awareness.

The clinical team is also involved in various projects and we often try to put time aside for this. From our OTs being involved in virtual reality myoelectric training studies, or contributing to projects with Koalaa and Open Bionics, our specialist counsellor lending her voice to the Limbless Association ampLAfy Podcast, or our rehab assistant becoming a certified "Nordic Walker", to our nursing and physio teams introducing our patients to High-Intensity Interval Training (HIIT) via the 7 Movement Programme, we are all involved. Large on-going projects such as the Trust Outpatient Accreditation is shared throughout the various teams at our centre.

We all share the workload and support each other through the highs and lows, no matter the circumstances. While we are sure we all long for a day where we can "return to normal", we count ourselves very fortunate to work with such an incredible team of dedicated professionals that are passionate about improving the lives of the patients that we treat while simultaneously supporting one another to help us all to adapt to the "new normal".

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