# **Evaluation of the Public Health England and Sport England Funded Sport and Exercise Medicine Pilot in Secondary Care**





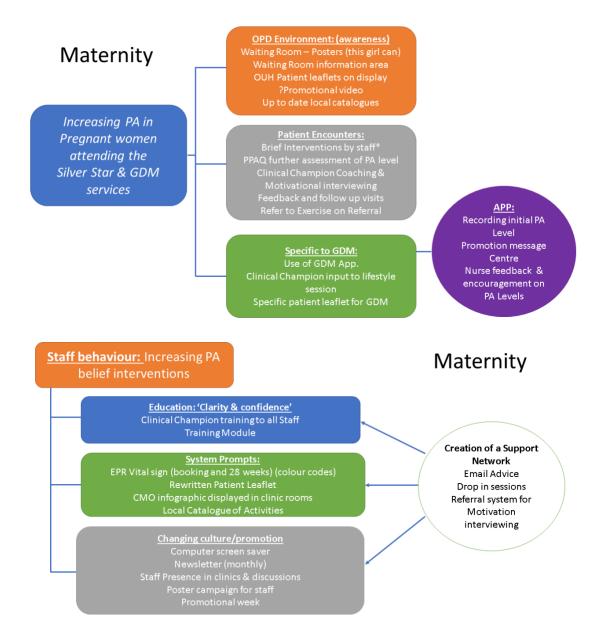
# **Appendices**







# Appendix A - Overview of Sport and Exercise Medicine pilot pathways



# Medical amputees PA

# Circuits class

- Part of weekly rehabilitation
- Health related PA
- Training to do activities at home
- Starting March

# Weekly education component

Link to community resources that can support ongoing PA

# Medical amputees peer support

#### Class based model

- Education sessions around PA class
- · Weekly group meeting
- Patient information

#### Remote support

- Establish network for remote communication
- Utilise Living without limbs network meetings
- Explore social media and other options

#### Leadership

• Identify patient leaders

# Transplant – Patients PA on Active Ward

# Environment Develop activity permissive environment Clear signage and messaging campaign Identify common & social space PAmaps eg including walking routes Open doors Signage of walking routes Drop in education opportunity Educate patients To begin at listing for transplant and pre-op education day Expectations of ward stay to be made clear Relear ward stay to be made clear Open doors Open doors Open doors Chronic production opportunity Alter routines Add PA component to routine care. Explore PA wita sign, discharge communication etc. Daily walking rounds 1030 Out-of-hours walking with friends and family Patient to walk to routine care (egdrug rounds, meals) where able Chair/bed related PA videos

# Transplant - staff education

#### **Teaching**

- Use clinical update and staff meetings as opportunities
- Customise PA information for PA champion education session

#### Signage and posters

- Education messages
- Include influential members of staff
- Use screensavers and computer opportunities

#### PA advice

- Contact for advice
- Drop in opportunity

# Transplant patients peer support

#### In pathway

- Contacts at appointments and pre-op education day
- Visit ward pre-op
- Focus on contacts made during walking rounds during inpatient stay

#### Remote support

- Establish network for remote communication
- Utilise Living without limbs network meetings
- Explore social media and other options

#### Leadership

 Identify patient leaders to manage group and speak to patients pre-op

# Critical Care – post ICU discharge patient PA

# PA initiatives to follow patient

- Develop clear PA component of ICU discharge and handover
- Test iCAN concept single page to go with obs chart
- Empower patient to do autonomous movement within capability

# PA champion contact on the ward

- Customise activity plan to augment physio offer
- Continuity with input from ICU team
- Educate patients and provide information

#### Leadership

 Clear message to receiving wards (28 of them) that PA is vitally important for the sickest of patients in the hospital

# Critical care – PA behaviour of ward staff

# Patient derived

- Clear messaging and simple pathway to follow patients
- Education component to this

# Education for staff

- Staff meetings
- Grand rounds
- Routine education opportunities
- Mandatory training

# Cardiology - PA of patients on Day case ward

#### Education

- Patient information on benefits
- Resources to support activity once home
- Staff reinforcement
- Links to community providers

#### **Environment**

- Clear signage
- Information about walking opportunities

# Cardiology – TAVI patients PA

# At MDT assessment

- Education from staff
- PA consultation & MI
- Information & education materials
- Links to community offer

#### Pre-op (~10 weeks)

- PA champ contact via phone
- Community navigator involvement to network community support

#### Procedure admission

- Early mobilisation
- Explore transferability of iCAN concept
- Regular PA contacts with clinical staff

# Appendix B - Example COM-B framework

Table 1 Example COM-B framework: Enablement pathway.

| Target Behaviour that you are wanting to change | Health related physical activity of medical amputees in rehabilitation pathway |   | Intervention Overview | Development of PA class for medical amputees  |   |
|---|--|---|-----------------------|---|---|
| COM-B<br>component                              | Intervention function  | Intervention description  | Policy Category       | Behavioural change technique  | Policy Description  |
|   | Teaching patients how to become more physically active through                 | more physically   | Guidelines            | Instruction on how to perform a behaviour, demonstration of the behaviour, behavioural practice/rehearsal | Demonstrate exercises during PA class. Develop patient facing resources that include instructions of how to perform specific exercises. |
| Capability -<br>Physical                        |  | exercises that can<br>be performed in<br>both gym and<br>home-based | Fiscal                |   |   |
| ritysical                                       |  |   | Regulation            | Feedback on outcomes of behaviour   | Develop feedback mechanisms for patients to provide feedback on the exercises and training delivered                                    |
|   |  |   | Legislation           |   |   |

|  |            |   | Service Provision             | Behavioural practice/rehearsal    | Develop and deliver a group PA programme for medical amputees and their partners to run weekly   |
|--|------------|---|-------------------------------|-----------------------------------|--|
|  | Enablement | Develop a PA class that is open to medical amputees and incorporates exercises that can be taught in a gymbased setting and transferred to a home-based setting | Guidelines                    | Adding objects to the environment | Design exercises that can be easily incorporated into everyday life and replicated in a home or gym-based setting. Provide necessary equipment to complete programme at home |
|  |            |   | Fiscal                        |                                   |  |
|  |            |   | Regulation                    |                                   |  |
|  |            |   | Legislation                   |                                   |  |
|  |            |   | Environmental/social planning | Adding objects to the environment | Design exercises that can be easily incorporated into everyday life and replicated in a home or gym-based setting. Provide necessary equipment to complete programme at home |
|  |            |   | Service Provision             | Action planning                   | Design and deliver a PA class incorporating exercises that can be replicated in a gym or home-based setting  |

| ∞ |
|---|
|---|

|                               |            | Regular direct<br>contact with staff<br>during PA class to<br>impart knowledge. | Communication/Marketing | Information<br>about health<br>consequences,<br>prompts/cues  | Develop and display posters, presentation slides, educational documents that include imagery of positive messages, motivators, images of physically active amputees |
|-------------------------------|------------|---|-------------------------|---|---|
|                               | Education  | Develop patient   | Guidelines              |   |   |
|                               |            | facing PA resources displaying positive   | Regulation              |   |   |
|                               |            | imagery and<br>messages   | Legislation             |   |   |
|                               |            |   | Service Provision       | Feedback on behaviour   | PA champion led programme and support during classes  |
| Capability -<br>Psychological | Training   | Demonstration of simple exercises in a safe environment with the                | Guidelines              | Instruction on how to perform a behaviour, demonstration of the behaviour, behavioural practice/rehearsal | Demonstrate exercises during PA class. Develop patient facing resources that include instructions of how to perform specific exercises.                             |
|                               |            | opportunity for   | Fiscal                  |   |   |
|                               |            | feedback and  | Regulation              |   |   |
|                               |            | assistance  | Legislation             |   |   |
| -                             |            |   | Service Provision       | Feedback on outcomes of behaviour   | PA champion led feedback and assistance during class  |
|                               | Enablement | Personalise exercises and goals. Identify motivators                            | Guidelines              | Self-monitoring of behaviour  | Develop and issue a PA diary,<br>where participants can<br>monitor their activity levels  |

|                           |                             | before, during and after the classes   | Regulation                    | Self-monitoring of behaviour                           | Attendance register to be kept to monitor adherence to programme  |
|---------------------------|-----------------------------|--|-------------------------------|--|---|
|                           |                             |  | Legislation                   |  |   |
|                           |                             |  | Environmental/social planning | Social support, restructuring the physical environment | 4-8 participants per class, enabling them to offer support to one another   |
|                           |                             |  | Service Provision             | Goal setting,<br>problem solving                       | PA champion to be present during PA classes to provide personalised exercises and goal setting as well as identifying and addressing barriers that arise within or outside of classes |
|                           |                             |  | Guidelines                    |  |   |
|                           | Restriction                 |  | Regulation                    |  |   |
|                           |                             |  | Legislation                   |  |   |
| Opportunity -<br>Physical | Environmental restructuring | PA class to incorporate the use of every day items that may act as cues to patients to | Guidelines                    | Adding objects to the environment                      | Design exercises that can be easily incorporated into everyday life and replicated in a home or gym-based setting. Provide necessary equipment  |

and barriers to PA amongst patients

and their partners

continue to be

physically active at

home

Fiscal

Fiscal

and document any

positive/negative experiences

to complete programme at

home

|            |  | Service Provision             | Prompt/cues, adding objects to the environment                            | incorporate everyday items, such as chairs, and provide all necessary equipment for PA class exercises to be replicated at home                       |
|------------|--|-------------------------------|---|---|
|            |  | Guidelines                    | Self-monitoring of behaviour  | Develop and issue a PA diary, where participants can monitor their activity levels and document any positive/negative experiences                     |
|            |  | Fiscal                        |   |   |
|            | Provide free, open   | Regulation                    |   |   |
|            | access PA class in an  | Legislation                   |   |   |
| Enablement | environment that patients are familiar with. Supply patients with the equipment required to complete the | Environmental/social planning | Restructuring the physical environment, adding objects to the environment | Design exercises that incorporate everyday items, such as chairs, and provide all necessary equipment for PA class exercises to be replicated at home |
|            | class at home  | Service Provision             | Goal setting,<br>problem solving  | PA champion to be present<br>during PA classes to provide<br>personalised exercises and<br>goal setting as well as<br>identifying and addressing      |

Regulation Legislation

Design exercises that

identifying and addressing barriers that arise within or

outside of classes

|                            |                             |   | Guidelines              |  |  |
|----------------------------|-----------------------------|---|-------------------------|--|--|
|                            | Restriction                 |   | Regulation              |  |  |
|                            |                             |   | Legislation             |  |  |
|                            |                             |   | Guidelines              |  |  |
|                            |                             |   | Fiscal                  |  |  |
|                            |                             |   | Regulation              |  |  |
| Opportunity -              |                             | Invite partners to  | Legislation             |  |  |
| Social                     | Environmental restructuring | attend PA classes<br>and complete<br>exercises alongside<br>patients                        | Service Provision       | Prompts/cues, restructuring the social environment   | Invite partners to attend and participate in the PA class to provide motivation, support and an understanding that they can be active together, providing a prompt/cue at home |
| Motivation -<br>Reflective | Education                   | Educational messages regarding the benefits/importance of PA to be delivered during classes | Communication/Marketing | Information about social and environmental consequences, information about health consequences | Develop slide set/patient facing information leaflets regarding benefits of PA to be delivered during classes  |
|                            |                             |   | Guidelines              | Information about social and environmental consequences, information about health consequences | Addition of educational section to PA class format   |
|                            |                             |   | Regulation              |  |  |

|            |   | Legislation             |  |   |
|------------|---|-------------------------|--|---|
|            |   | Service Provision       | Information<br>about social and<br>environmental<br>consequences,<br>information<br>about health<br>consequences | Addition of educational section to PA class format  |
| Persuasion | Educational messages regarding the benefits/importance of PA to be delivered during classes. Participants encouraged to keep a PA diary | Communication/Marketing | Information about social and environmental consequences, information about health consequences                   | Develop slide set/patient facing information leaflets regarding benefits of PA, and risks of inactivity, to be delivered during classes |
|            |   | Guidelines              | Information about social and environmental consequences, information about health consequences                   | Develop educational documents that include benefits of PA, and risks of inactivity  |
|            |   | Regulation              | Feedback on<br>behaviour,<br>feedback on<br>outcome of the<br>behaviours   | Develop and issue a PA diary, where participants can monitor their activity levels and document any positive/negative experiences       |
|            |   | Legislation             |  |   |

|                 |   | Service Provision       | Credible source,<br>feedback on<br>behaviour,<br>feedback on<br>outcome of the<br>behaviours   | PA champion led PA class,<br>educational messages and<br>motivational interviewing  |
|-----------------|---|-------------------------|--|---|
|                 |   | Communication/Marketing |  |   |
|                 |   | Guidelines              |  |   |
|                 |   | Fiscal                  |  |   |
| Incentivisation | Attendance<br>monitored and<br>participants<br>encouraged to keep<br>a PA diary | Regulation              | Self monitoring of behaviour, monitoring of behaviour by others without evidence of feedback, feedback on behaviour, feedback on outcome of the behaviours | Attendance register to be kept to monitor adherence to programme. Develop and issue a PA diary, where participants can monitor their activity levels and document any positive/negative experiences |
|                 |   | Legislation             |  |   |
|                 |   | Service Provision       | Feedback on<br>behaviour,<br>feedback on<br>outcome of the<br>behaviours   | PA champion led review of PA diary  |
| Coercion        |   | Communication/Marketing |  |   |

|                           | Attendance<br>monitored |   | Guidelines              |  |   |
|---------------------------|-------------------------|---|-------------------------|--|---|
|                           |                         |   | Regulation Fiscal       | Monitoring of<br>behaviour by<br>others without<br>evidence of<br>feedback                     | Attendance register to be kept to monitor adherence to programme.   |
|                           |                         |   | Legislation             |  |   |
|                           |                         |   | Service Provision       |  |   |
| Motivation -<br>Automatic | Persuasion              | Educational<br>messages regarding<br>the<br>benefits/importance<br>of PA to be<br>delivered during<br>classes | Communication/Marketing | Information about social and environmental consequences, information about health consequences | Develop slide set/patient facing information leaflets regarding benefits of PA, and risks of inactivity, to be delivered during classes |
|                           |                         |   | Guidelines              | Information about social and environmental consequences, information about health consequences | Develop educational documents that include benefits of PA, and risks of inactivity  |
|                           |                         |   | Regulation              |  |   |
|                           |                         |   | Legislation             |  |   |
|                           |                         |   | Service Provision       | Credible source  | PA champion led PA educational messages   |
|                           | Incentivisation         | Attendance<br>monitored   | Communication/Marketing |  |   |

|                             |  | Guidelines              |  |  |
|-----------------------------|--|-------------------------|--|--|
|                             |  | Fiscal                  |  |  |
|                             |  | Regulation              | Self monitoring of<br>behaviour,<br>monitoring of<br>behaviour by<br>others without<br>evidence of<br>feedback | Attendance register to be kept to monitor adherence to programme   |
|                             |  | Legislation             |  |  |
|                             |  | Service Provision       |  |  |
|                             | Attendance<br>monitored  | Communication/Marketing |  |  |
|                             |  | Guidelines              |  |  |
|                             |  | Fiscal                  |  |  |
| Coercion                    |  | Regulation              | Monitoring of behaviour by others without evidence of feedback   | Attendance register to be kept to monitor adherence to programme.  |
|                             |  | Legislation             |  |  |
|                             |  | Service Provision       |  |  |
| Environmental restructuring | Utilise readily available/everyday items to facilitate PA, e.g. chair based activities | Guidelines              | Adding objects to the environment  | Design exercises that can be easily incorporated into everyday life and replicated in a home or gym-based setting. Provide necessary equipment to complete programme at home |
|                             |  | Fiscal                  |  |  |
|                             |  |                         |  |  |

|  |            |   | Regulation<br>Legislation     |   |  |
|--|------------|---|-------------------------------|---|--|
|  |            |   | Environmental/social planning | Restructuring the physical environment, adding objects to the environment | Design exercises that incorporate everyday items, such as chairs, and provide all necessary equipment for PA class exercises to be replicated at home                        |
|  | Modelling  | Include case studies as examples in   | Communication/Marketing       | Demonstration of the behaviour  | Educational material to include positive imagery of physically active amputees   |
|  | Modelling  | introductory<br>documents or<br>presentation slides   | Service Provision             | Demonstration of the behaviour  | PA champion led PA class, including demonstrations, feedback and assistance  |
|  |            | Integrate exercises involving readily available/everyday items to facilitate PA. Ensure staff are | Guidelines                    | Adding objects to the environment   | Design exercises that can be easily incorporated into everyday life and replicated in a home or gym-based setting. Provide necessary equipment to complete programme at home |
|  | Enablement | available to  | Fiscal                        |   |  |
|  |            | troubleshoot any  | Regulation                    |   |  |
|  |            | problems that   | Legislation                   |   |  |
|  |            | patients or partners<br>report during the PA<br>class or at home                                  | Environmental/social planning | Adding objects to the environment   | Design exercises that can be easily incorporated into everyday life and replicated in a home or gym-based setting. Provide necessary equipment                               |

|                   |                 | to complete programme at home   |
|-------------------|-----------------|---|
| Service Provision | Problem solving | PA Champion led PA class allowing prompt identification and resolution of problems/barriers |
|                   |                 |   |

# Appendix C – Evaluation methodology

It was apparent after the initial teleconference with the Sport and Exercise Medicine (SEM) pilot delivery team from Oxford University Hospital Foundation Trust (OUHFT) on 23<sup>rd</sup> November 2017 that the original evaluation framework that was developed based on Public health England's (PHE's) MHPP project specification would need to be amended considerably. The intervention that OUHFT had designed was considerably more complex than the palliative care model proposed in the project specification. The team at OUHFT planned to embed the pilot within five different clinical pathways (Maternity, Enablement, Renal, Complex Medical Unit (CMU) and Cardiology) with a different delivery protocol for each. In order to capture information from as many aspects of the SEM pilot as possible the evaluation team had to amend the original evaluation framework to suit the new delivery model.

Members of the evaluation team met with the SEM pilot leads in London at the Royal College of Physicians on 13<sup>th</sup> December 2017. The aim of this meeting was to identify the active components of the intervention(s), establish core evaluation outcomes, determine an agreed position for the evaluation and identify the most appropriate data collection methodology. This meeting satisfied step 1 in the original evaluation framework – formative evaluation: discussion with key stakeholders (e.g. SEM consultant leads) to inform the evaluation methods and clarify any assumptions about the implementation of the SEM pilot.

Based on the discussions during that meeting and the nature of the SEM pilot, a number of changes were made to the evaluation framework. The updated evaluation methodology for the SEM pilot was designed to focus on seven discrete studies which are detailed below. The evaluation of the PACAP pilot was conducted using a mixed-methods approach. To meet the aims of the evaluation, the following evaluation activities were completed.

# C.1 Impact of a bespoke Sport and Exercise Medicine led Clinical Champions training programme

#### Aims:

a) Explore the impact of a bespoke SEM led Clinical Champions training programme (with physical activity (PA) team as recipients) on attitudes, knowledge, confidence, and intentions to promote/engage in conversations about PA as part of routine practice.

b) Audit<sup>1</sup> the number of subsequent health care professionals receiving Clinical Champions training programme delivered by a PA team member (target: at least one other healthcare professional (HCP) trained).

#### Data collection:

The link to the baseline HCP survey was emailed to the SEM consultant leads on 12<sup>th</sup> June 2018. The SEM leads were asked to distribute the survey link to HCPs working in the five clinical pathways involved in the SEM pilot. The SEM leads noted the Maternity and Enablement pathways were already involved in the SEM pilot and therefore responses from staff in these pathways would not reflect a true baseline. The HCP baseline survey link was sent by pathway leads to staff in three of the five pathways (Cardiology, Renal and Maternity). Information about when the survey link was sent and who had received it was difficult to gather as OUHFT lacked administrative support for the project in the early stages. A total of 13 baseline survey responses were received between July and September 2018. HCPs provided their email address for the evaluation team to send a follow-up survey. The follow-up survey was sent to all 13 participants on the 14th January 2019. A first reminder email was then sent on the 30th January, followed by a second reminder email on 7th February. In total 10 follow-up responses were received.

A medical student at OUHFT gathered audit information during February/March 2019 and the SEM pilot leads shared the data with the evaluation team.

## C.2 Culture of physical activity within OUHFT

**Aim:** Understand the current culture of PA within the hospital from the perspective of operational directors and HCPs. In other words, this strand of the evaluation provides the context within which the pilot is being delivered.

**Data collection:** Nine face-to-face interviews were conducted with operational directors and HCPs in June/July 2018 to explore the current culture of PA within OUHFT and perceptions of SEM clinical advice.

# C.3 Feasibility of a peer-to-peer support programme

**Aim:** Investigate the feasibility of a peer-to-peer support programme with patients receiving treatment in the Enablement pathway.

**Data collection:** Two face-to-face and two telephone interviews were conducted between December 2018 and January 2019 with patients who had received treatment in the Enablement pathway.

<sup>1</sup> All audit data was gathered by OUH staff/students and shared with the evaluation team at SHU. All data was anonymised prior to sharing and no identifiable patient data was shared.

# C.4 Impact of the Sport and Exercise Medicine intervention on healthcare professional behaviour

**Aim:** Explore the impact of the SEM intervention on the behaviour of HCPs in the Enablement and Maternity pathways (was CMU, Cardiology and Renal) by auditing patient's notes for mention of PA in discharge notes.

**Data collection:** An audit of patient's notes was carried out by an OUHFT medical student in February 2019 to establish the number of patients receiving advice on PA (i.e. mention of PA in discharge notes using the Electronic Patient Record) prior to the SEM pilot and again during the pilot.

# C.5 Acceptability of an active ward

**Aim:** Explore what an active ward consists of, what works well and what doesn't work so well from the perspective of ward staff (i.e. ward sister, staff nurse, doctor, consultant) and patients. The interviews also explored their perceptions of the active ward.

**Data collection:** Two face-to-face interviews were conducted in January 2019 with patients who had received treatment in the Renal pathway.

# C.6 Patient centred physical activity intervention - iCAN

**Aim:** Explore patients experience of a patient centred PA intervention (a PA plan using the iCAN tool) whilst receiving treatment on the CMU (was originally going to be following discharge from Critical Care). Furthermore, explore the acceptability of this type of intervention with ward staff.

**Data collection:** One face-to-face and two telephone interviews were conducted in January/February 2019 with staff from the CMU. The evaluation team intended to interview patients who had used the iCAN tool, however, there was difficulty with recruitment and no interviews were undertaken.

An audit was carried out by an OUHFT medical student in February 2019 to establish the number of iCAN plans that had been completed.

# C.7 Experiences of lead Sport and Exercise Medicine Consultants in delivering the Sport and Exercise Medicine pilot

**Aim:** Understand the experience of lead SEMs implementing a broad programme of PA in a single hospital Trust.

**Data Collection:** Midway face-to-face interviews were conducted with the two SEM leads in July 2019. Follow-up interviews were then conducted with the SEM leads in February 2019. In addition to the data captured from the interviews, the SEM leads were asked to keep informal notes/diaries to

document the SEM pilot set-up process, specifically any difficulties that were encountered and how they were overcome. The qualitative enquiries were substantiated with on-site visits from the evaluation teams at 3 time points during the SEM pilot.

# C.8 Data analysis

All interviews were audio-recorded and transcribed verbatim. Interview data was analysed using a qualitative framework guided by a case-study approach (Hartley, 2004). Interviews transcripts were read and re-read several times. In addition, the recordings were listened to ensuring the accuracy of the transcription and to aid interpretation. Data was then organised around the topics, themes and central questions in the aims and objectives outlined in each study. Quotes are used to exemplify key aspects of the lead SEM consultants experience and to make manifest the implementation of the SEM pilot.

#### References

Hartley, Jean (2004). Case study research. In Catherine Cassell & Gillian Symon (Eds.), Essential guide to qualitative methods in organizational research (pp.323-333). London: Sage.

# Appendix D - The iCAN tool

Date:



Initials:

| ICAN   |
|--|
| Move around using:  No aid Frame Stick   |
| Standing Hoist Full hoist Rotastand  |
| Other  |
| With: help of 2 help of 1 independent  And a distance of: less than 1m 1-5m 5-10m 10m+ |
| Get washed and dressed: Independently Top half only With help                          |
| Clean teeth: With help Independently   |
| Practise exercises:     Bed exercises  |
| I use: Hearing Aid Glasses   |
| #movingmedicine  |

# Appendix E - Physical Activity Calculator

# Physical Activity Calculator These questions are related to a week in the individual's life when they have been feeling well. For instance, if they have developed an acute liness or suffering with morning sickness, it is related to a week prior to those symptoms when their health has been stable. Please ask the following 2 questions: On average, how many days per week do they engage in moderate intensity or greater physical activity (like a brisk walk) lasting at least 10 minutes? On those days, how many minutes do they engage in activity level is good. It is important to continue this activity level Recommend trying to increase activity level up to 150 minutes per week of moderate intensity activity. Start gradually and build up in bouts of as little as 10 minutes at a time Activity levels are very low. Recommend trying to increase activity level to improve wellbeing and health. Start gradually and build up to bouts of as little as 10 minutes at a time

Visit info: 6406417, Churchill, Inpatient, 08/Mar/2019 - 12/Mar/2019

Physical Activity Calculator Entered On: 11/Mar/2019 10:00 Performed On: 11/Mar/2019 10:00 by Barnett , Tracy

#### **Physical Activity Calculator**

Days of Physical activity > 10m: 5 day(s)
Minutes of Physical Activity: 270 minute(s)
Exercise time in a week: 1,350 minute(s)
Exercise level in pregnancy: Green

Activity 150 or more mins/week: Information/leaflet on physical activity provided

Barnett, Tracy - 11/Mar/2019 10:00

# **Appendix F**

# F.1 Understanding the culture of physical activity within OUHFT

The tables below contain the main topics and themes that emerged from the analysis of the interviews exploring the current culture of PA within OUHFT and perceptions of SEM clinical advice. A description of theme is given with direct quotes taken from interviews to help demonstrate the findings and support the researcher's interpretation.

Table 2 Topics and themes that capture the context within which the SEM pilot was implemented.

| Topic              | Theme            | Quote(s)  | Interpretation/implication(s)   |
|--------------------|------------------|---|---|
| What OUHFT is like | OUHFT is an      | "we're using evidence-based medicine approaches, we're at   | Staff described OUHFT as an innovative Trust which  |
| as a Trust         | innovative Trust | the forefront of any changes in the way that we manage patients" S2P02  | strives to push the boundaries of patient care by implementing evidence-based practice. The SEM pilot was seen to fit well with this ethos of innovation as the |
|                    |                  | "I think they're very keen on innovation and new ideas" S2P06   | aim was to develop new ways of integrating PA into patient care plans.  |
|                    |                  | "I do think it's quite a forward thinking trust." S2P07   |   |
|                    |                  | "We're constantly looking for new ways to deliver the care<br>and sort of innovate and bring in new ideas and certainly this<br>pilot is one of those." S2P01 |   |
|                    |                  | "I've also advised them that in some cases their interventions could be building into the support that we offer for care pathways with digital tools." S2P01  | Digital technology was perceived to be an integral part of successfully implementing innovative services within the hospital.                                   |

| Topic | Theme                                 | Quote(s)   | Interpretation/implication(s)   |
|-------|---------------------------------------|--|---|
|       |                                       | "Yeah because if you want to scale it up you need to support patients and clinicians with changing their behaviour because that's what this is about, it's changing your behaviour and the way you do things and supporting that with digital tools will be helpful." S2P01  "Definitely it is multi-disciplinary, the whole team needs to | There were a number of reasons why digital technology was deemed important when implementing new programmes. Making the intervention a part of business as usual by supporting staff seemed most important. |
|       |                                       | agree it, and the best support you can have is if you support the pathways digitally it gets embedded." S2P01  "I think we need to do more with electronic patient records so that there's more alerts and more help." SP02  |   |
|       |                                       | "we've got the electronic patient record people to add those two questions about PA so that we can measure what women's PA is at the booking point, which is when they're about ten weeks [pregnant]." S2P02   | Indeed, digital technology was implemented in the Maternity pathway of the SEM pilot to assess the PA levels of women during their booking appointment.   |
|       | Problem with staff retention/turnover | "The trust has a major problem with recruitment and retention. It's a high cost area of living with no cost of living supplement. It has a high turnover of staff." S2P04  "in our trust particularly, there's a real problem with recruitment and retention of staff" S2P05   | A number of interviewees highlighted that staff retention is a problem within OUHFT citing high living costs in the area with no supplement to pay as a contributing factor.                                |
|       |                                       | "But when you have high staff turnover and less of a team, it's more difficult. You're focusing on staffing, getting through the shift and the basics. I do still think it's [PA] seen as an extra, and not an essential." S2P04  "Yeah, so for example, the unit I've just come from massively  | The staffing problem could affect the implementation of the SEM pilot for two reasons. Firstly, HCPs might not have the time to implement the project in addition to their usual duties.                    |
|       |                                       | short staffed with nurses. So it's difficult to drive new initiatives" S2P05   |   |

| Topic | Theme                            | Quote(s)   | Interpretation/implication(s)   |
|-------|----------------------------------|--|---|
|       |                                  | "Yeah, because you've not got a cohesive team and that's what you need to get that culture to move forward as a cohesive team, that when new people come in they join an already forward-thinking team rather than treading water team. And there feels like a lot of treading water." S2P05   | And secondly, if staff turnover is high it could prove problematic to build momentum and change the culture within the different SEM pilot pathways.  |
|       | Physical environment at OUHFT    | "Oxford University Hospitals, and we operate on four big sites and employ about 12,000 staff in those" S2P01  "I imagine that to be much more difficult just because it's got to be quite a big message, so it's got to be pervasive throughout the whole psyche if you like, rather than be in sort of the little strands that pop up ad hoc." S2P05  | A reoccurring theme highlighted by the majority of interviewees was that OUHFT is a very large Trust.  It could prove difficult to gather traction with the pilot as there are so many employees and the hospital is spread over four locations. A coordinated and consistent approach is necessary if the SEM pilot is to succeed across the Trust.  |
|       |                                  | "I think actually if you can implement it in this trust which is massive, then you can implement it anywhere, because it's really, the bigger an organisation the more loops you have to go through, the more people there are to engage with  We're over four sites so. If you work in a relatively smaller DGH [district general hospital] you're all on one site I think actually if you can do it somewhere like this then I think the only place that's bigger than this is Bath and London, then it's proof of concept, you can do it anywhere." S2P09 | One interviewee suggested that if the SEM pilot is successful in a Trust as big as OUHFT then the model is likely to be transferrable to smaller Trusts. This will be crucial if the SEM pilot is scaled up and rolled out to other Trusts.   |
|       |                                  | "I don't have much interaction on a day-to-day basis with the sport and exercise guys at all." S2P03  "And I think there is I guess the geographical issue that they are in a different hospital from the main acute hospital."  S2P02   | The geographical spread of the different SEM pilot pathways has the potential to hinder the success of the pilot. One interviewee highlighted there is little interaction with the lead SEM consultants. This is a potential obstacle, particularly in the start-up phase of the pilot when the multi-disciplinary teams are being formed in the different pathways. Conversely, this hands-off approach could foster ownership of the project leading to long term sustainability. |
|       | OUHFT is an outcome driven Trust | "The culture in the NHS is that if you want to have a service that is continually funded, you have to show the outcome." S2P04   | A prominent theme highlighted by eight out of the nine interviewees was that the Trust, and the NHS as a whole, is very outcome driven. Unless a new service or programme can demonstrate impact through improved   |

| Topic | Theme | Quote(s)   | Interpretation/implication(s)   |
|-------|-------|--|---|
|       |       | "I think that's important because trusts have, you know, that's targets for trusts. Trusts have those targets. And whilst none of us like targets, none of us want to say the patient has to be seen now and has to be treated within this amount of time and has to be out of hospital this many days later. Unfortunately, the Health Service at the moment that is the way it's driven." S2P07  | outcomes it is unlikely to receive funding through the hospital.  |
|       |       | "Now the question is, at the end of the pilot where's the funding going to come to pay for that, to keep that going and has it improved the outcomes overall enough to make that investment worthwhile because any service development we want to do we have to make the business case." S2P09   |   |
|       |       | "And I don't know how they're going to show that's of any benefit. And I don't know what outcome they're going to pick to show that PA benefits, because there's no doubt that we should move more. The culture in the NHS is that if you want to have a service that is continually funded, you have to show the outcome." S2P04  | Queries were raised about whether it is possible to demonstrate the impact of the SEM pilot on outcomes and performance targets that are important to the Trust, for example, minimise patient waiting times and length of stay in hospital. This calls in to question the long term sustainability of the work being carried out as part of the SEM pilot. |
|       |       | "As well as doing it, you're keeping people well for 10, 20, 30 years from now with the exercise programme or the health and promotion rather than preventing the disease. But a lot of acute trusts, they spend all their day managing acute disease. You're so busy doing the heart attacks in A&E or chest infections, actually someone says well we'll invest lots of money now for stopping heart attacks, but that's going to be in 20 years' time, that's great. But people see that then as a very Public Health England role, but not in the role of an acute trust I think." S2P03 | Furthermore, one interviewee indicated that acute Trusts might not perceive public health type PA interventions like the SEM pilot to be their responsibility to fund because the focus is on long term prevention rather than treatment of acute conditions. In other words, the impact on outcomes might not be apparent/demonstrable in the short term.  |
|       |       | "have the influence to say these people with gestational diabetes didn't need medication and actually kept up PA advice and therefore they didn't need to go onto medication, therefore we didn't need to induce them early and therefore  | One participant did give an example of how the impact of the project might be measured in the Maternity pathway.  |

| Topic              | Theme                              | Quote(s)   | Interpretation/implication(s)  |
|--------------------|------------------------------------|--|--|
|                    |                                    | they had less stay and less. So that's what you've got to do. So that's what other models, that's how other things worked in the past, I think, that's how the trust respond best to it." S2P06  |  |
| Supportive culture | Supportive senior management       | "business has always been done in the corridor on first name terms in a very social and friendly manner." (S2P03)  "I mean the team above me, so the senior team, senior support I've had have been really good and helpful and they've guided me through the process which has been excellent." (S2P07) | When interviewees were asked what the Trust was like, staff described OUHFT as being a friendly, supportive and nurturing place to work in general. A place where senior staff support more junior staff.                        |
|                    |                                    | "The trust are incredibly supportive." (S2P08)   |  |
|                    |                                    | "I am in no way dissing this or unsupportive of it, but this is supportive and, the chief exec signed off on the project and his is keen on us doing PA" (S2P09)   | When asked about the SEM pilot specifically, staff perceived the SEM pilot to be supported at senior leadership level.   |
|                    |                                    | "it's [PA] on the trust's strategic priorities, but I can't pretend it's the top of them." (S2P09)   | Despite this senior level buy-in and support for the SEM pilot it was acknowledged that there are competing interests and PA is not always top of the Trust's strategic priorities.  |
|                    | The staff wellbeing offer at OUHFT | "There are gym facilities I think near the site or aligned with<br>the site. There are various sports groups. So there's five-a-<br>side football and all of those usual kind of groups. There is<br>Pilates, yoga." S2P08   | All nine interviewees noted that there are services available to support staff wellbeing OUHFT. However, the level of enthusiasm for the staff wellbeing offer varied. Some staff were enthusiastic about the services on offer. |
|                    |                                    | "Yeah that's [staff health and wellbeing], well yes that seems fairly good actually. Not that I've particularly used any of the opportunities but weekly, monthly you'll get a newsletter that comes through." S2P05   | Despite some interviewees enthusiasm for what was on offer to staff, none reported taking up any of the services available to them and others felt the Trust paid 'lip service' to staff wellbeing.                              |
|                    |                                    | "The trust does a lot to promote health and wellbeing and it pays a lot of lip service to, go for a walk at lunchtime, do your mindfulness training for that, you know, it really does, but actually I think a lot of that is just lip service." S2P03   |  |

| Topic                               | Theme   | Quote(s)  | Interpretation/implication(s)  |
|-------------------------------------|---|---|--|
| PA provision and<br>the role of SEM | Shared responsibility<br>for PA provision within<br>the Trust | "I think that it's [promoting PA] any opportunity or interaction with a healthcare professional ideally." (S2P02)  "it's the remit of all of us but maybe the leadership comes from people who have specialised in sport and exercise medicine." S2P02  | The majority of staff believed it was "everyone's responsibility" (S2P01) to promote PA to patients. Although most believed there was a shared responsibility to promote PA, interviewees suggested that it should be led by Sport and Exercise Medicine specialist. |
|                                     |   | "it needs to be figure headed by somebody, it may as well be the exercise medicine people, delivered by anybody." (S2P04)   |  |
|                                     |   | "And in intensive care that would be the physiotherapy team." (S2P04)   | Other interviewees suggested it might be the responsibility of the physiotherapy team to lead PA initiatives.  |
|                                     |   | "Physios are in a good place to lead it" (S2P05)  |  |
|                                     |   | "That's interesting actually because I don't know if anyone could take responsibility for it [promote PA] I suppose the very naïve simple answer is to say well it's everyone's responsibility But if you wanted someone to be an overarching point of contact to say these are strategies that the trust want to develop and we want to implement with our patients, then does that sit with the rheumatology, does it sit with the orthopaedics, does it sit with SEM, or does it sit with the chief executive" (S2P03) | It was acknowledged that whilst the promotion of PA in practice was deemed to be everyone's responsibility, it was less clear whose responsibility it was to promote PA on a strategic level.  |
|                                     |   | " the PA is a bonus in an inpatient ward environmentthere isn't a CQUIN [Commissioning for Quality and Innovation] or anything in any inpatient pathway that says a patient should, PA is involved there is no stick to beat the executive board with to say if patients aren't physically active" (S2P04)  | A key theme that emerged was staff believed that for PA to sit higher in the Trust's priorities there would need to be a formal policy making PA a mandatory part of secondary care.   |
|                                     |   |   | Staff felt that other areas took priority especially if they had a formal target or standard to meet, such as the "four hour wait in A&E" or "the 18 week cancer wait" (S2P04).  |
|                                     |   | "I think that's where we're trying to figure out as a specialty what our role is: are we leaders that just overview things and  | Sport and Exercise Medicine was recognised as a medical specialty in 2005. It was clear that the role of a Sport and   |

| Topic             | Theme                | Quote(s)   | Interpretation/implication(s)   |
|-------------------|----------------------|--|---|
|                   | Perceived role of a  | try and implement these things and have a knowledge about            | Exercise Medicine Consultant was not well defined or  |
|                   | Sport and Exercise   | what works; or is that public health's actual goal to refer to;      | clearly understood, perhaps because the specialty is still  |
|                   | Medicine Consultant  | or are we working with them? I think that's still something          | in its infancy or because the role can be very varied.  |
|                   |                      | that's going to be ironed out in the future." (S2P06)                |   |
|                   |                      | "looking after elite athletes and people with musculoskeletal        | Interviewees tended to highlight musculoskeletal injury   |
|                   |                      | problems and getting them back to activity, that can be              | as one of the main areas of work for SEM consultants.   |
|                   |                      | anything from a builder who's injured his ankle playing              |   |
|                   |                      | football to a footballer who's playing at high level." (S2P06)       |   |
|                   |                      | "working outside the NHS sector and elite athletes" (S2P02)          |   |
|                   |                      | "looking at sports medicine for those higher performing              | They also made a distinction between the types of   |
|                   |                      | athletes and that seems to be a bit of a focus." (S2P04)             | patients SEM consultants might treat. The first type of patient identified was the elite athletes after an injury |
|                   |                      | "for the more general population is the role of sport and            | and the goal of treatment is to bring them back to full   |
|                   |                      | exercise chaps managing low level tendinopathies, sort of            | health and regain their pre-injury performance  |
|                   |                      | sprains, strains that where they can bring to bear their             | standards. The second type of patient identified were   |
|                   |                      | expertise of high end athletes to the average population."           | the general population receiving treatment in the NHS   |
|                   |                      | (S2P03)  | for a musculoskeletal injury.   |
|                   |                      | "NHS time which is presumably about, I don't exercise                | There was less emphasis placed on the role of the SEM   |
|                   |                      | prescriptions or working in particular high risk communities         | consultant in promoting PA within the NHS in the  |
|                   |                      | within the hospital." (S2P02)  | interest of public health, but this was discussed. It   |
|                   |                      |  | seemed like this preventative public health role was a  |
|                   |                      | "there's really a public health role for us to have in               | new area or work for the SEM specialism and more of   |
|                   |                      | promoting PA and getting people more active now, I think             | this type of work might be seen in the future.  |
|                   |                      | that's evolving and that's something that hopefully we'll            |   |
|                   |                      | develop in the future." (S2P06)                                      |   |
| Barriers to the   | Competing priorities | "So yeah, it's not a priority, it's not a trust priority, and PA     | Interviewees said that the Trust has numerous priorities  |
| implementation of |                      | isn't a trust priority." (S2P04)                                     | and targets to meet and PA is not currently one of them.  |
| the SEM pilot     |                      |  | Although PA might not be a Trusts priority, others  |
|                   |                      | "I think the trust is very, it's definitely, high on their agenda is | thought it was still high on the Trust's agenda.  |
|                   |                      | PA in preventative medicine" (S2P06)                                 |   |

| Topic | Theme                        | Quote(s)  | Interpretation/implication(s)  |
|-------|------------------------------|---|--|
|       |                              | "I do still think it's seen as an extra, and not an essential." (S2P04)   | Because of these competing demands PA is seen as an extra and is the first thing to go if time or resources are tight.   |
|       |                              | "And by the time they've done all that and they've gone through all this big booking form and they're doing the damn thing, the PA has really fallen off the end" (S2PO2)   |  |
|       | Inter-pathway<br>differences | "It's not easy getting information from other units and it's not easy to have, compare like for like because all units work in a slightly different way." (S2P05)   | Differences between how care is delivered across the different pathways might prove problematic for a Trust wide intervention such as the SEM pilot. Something that works in one pathway might not necessarily work in another.  |
|       |                              | "Well it's different in different areas, what will be important both to the patients and to the staff and accepted as is really worth investing in in terms of time and other resources in Maternity will be very different to what is important in the dialysis unit to what is important in the amputee unit. And so it's having it localised enough that it carries on, not just having a sort of one size fits all model." (S2P09)  | These differences mean it is extremely important that the pilot is developed in collaboration with staff who work within the different pathways. Furthermore, it needs to be delivered with enough flexibility that the interventions can be adapted to specific pathways.     |
|       | Limited time and resources   | "I don't think there's been a pushback in terms of a worry that it's not important or that it's dangerous or any of those things, it really has just been about time and, well mostly time I suppose and money I suppose." (S2PO2)  "I think the challenges are it was a short period of time to try and deliver something and to spend longer doing more and to get the sustainability element together into a field that it's something that will continue to benefit." (S2PO2) | Regardless of whether promoting PA is a Trust priority or not, it was clear from the interviews that resources (money and time) are a major determining factor as to whether an intervention like the SEM pilot is successful in the short-term and sustainable going forward. |
|       |                              | "There is significant financial problems within the trust, and that spirals down into difficulties." (S2P04)  | External funding is often required to support innovative projects like the SEM pilot as the Trust does not have the resource.  |
|       |                              | "But yeah I'm not sure to be brutally honest what would happen if they said like there's no money for this, what we going to do? I think they'd say OK we'll just use the leaflet because that's what they may have done." (S2P06)  | The external funding is required to cover the cost of things like staff time to focus on delivering the project which wouldn't otherwise be possible. The problem with external funding is it is often short-term which means  |

| Topic   | Theme   | Quote(s)   | Interpretation/implication(s)  |
|---|---|--|--|
|   |   | "I think what they've achieved is huge in that short timeframe and what we need is a bit longer to then start to do the next bit." (S2P02)   | there is a short timeframe to deliver the project. Longer term funding would help ensure sustainability of projects after the initial implementation phase.  |
|   | Safety concerns   | "So I guess lifestyle intervention has been something that's been on our radar for a long time. I would probably say that the dietetic element of it has taken precedence over the PA element. Often because people just, you know, again it's about the safety issues and worried about it [PA]" (S2P02)  "Am I going to break this person, yeah I think so." (S2P05)   | Safety concerns were raised abound encouraging patients to be more physically active. Some interviewees worried that by encouraging patients to be more active they might increase the risk of injury. This was perceived to be a barrier to promoting PA within the hospital and potentially why other lifestyle factors are targeted more readily.                   |
|   |   | "we also need to be careful of is that by promoting more PA we're also not putting patients at risk of falls and that of course, that's another thing that is perhaps a bit or a barrier is this patient safety" (S2P05)   |  |
| Facilitators of the implementation of the SEM pilot | Buy-in and<br>engagement with the<br>project from key<br>stakeholders | "the practical barrier of making a service change and the inertia that you face with a large organisation to influence an effect, getting buy-in from senior management" (S2P03)  "I think you need buy-in and I think, it's almost like you need to go and prove a business model, as in proving it's effective and then they'll buy onto it." (S2P06)  | Interviewees reported that buy-in from senior management was crucial for the success of a project like the SEM pilot.  |
|   |   | "there's been a hugely positive response to the work that the sport and exercise team have been doing to promote PA in pregnancy. There have been very few barriers to educating staff and all the rest of it and given the fact that we're asking staff to come on their days off or whatever who haven't been able to take out of their time in order to come to education sessions we've had a really good uptake." (S2P02) | Early engagement with and ownership of the SEM pilot was evident among the interviewees. Staff at all levels across the hospital, from ward staff to senior management, were supportive of the project. A number of interviewees reported that the SEM pilot had been well received and some staff had even completed training related to the pilot on their days off. |
|   |   | "I think at a management level, all the managers have been very positive about it." (S2PO2)  |  |

| Topic | Theme                        | Quote(s)   | Interpretation/implication(s)  |
|-------|------------------------------|--|--|
|       |                              | "the trust are really behind it, they do endorse it and they are keen on it" (S2P06)   |  |
|       |                              | "I mean the team above me, so the senior team, senior support I've had have been really good" (S2P07)  |  |
|       |                              | "I mean it felt a little bit as though there was some resistance from above, initially, but I think that was not fully understanding the aims of the project, what we were trying to do. But the moment that was discussed and we'd had that conversation it became very very easy." (S2P07)   | However, there were exceptions and some aspects of the SEM pilot were met with resistance. One interviewee suggested that the reason for the resistance from senior staff was because they did not fully understand the purpose of the project. Another interviewee believed that a lack of understanding on the                                   |
|       |                              | "So initially they said they wanted to do pre-op, which isn't necessarily intensive care. And I don't think, I think they got quite a frosty reception from preadmission clinic, so then they moved to inpatients." (S2P04)  | part of the SEM leads around how individual wards work could hinder its success in certain pathways.   |
|       |                              | "I think the setup would have been significantly more successful if they'd have contacted the stakeholders of the five areas prior, because they probably would have been able to focus more and foreseen some of the problems that have come up in the different areas, and would have probably been a better tailored intervention." (S2P04) | There were mixed opinions about whether the SEM pilot leads had engaged with key stakeholders early in the project. One interviewee felt the pilot would have been more successful if the SEM leads had engaged with stakeholders in each of the five pathways. However, another interviewee felt the central team had engaged with them early on. |
|       |                              | "Yeah I'm not really sure what I was expecting to be honest. I mean it hasn't surprised me that they've come to us and asked these questions over there because they've been very engaged from the beginning." (S2P07)   |  |
|       | The Trust and staff value PA | "I suppose the first thing what helps is if they've had, if they understand the value of it [PA] and understand why they should be doing it" (S2P06)   | Some interviewees indicated they had an interest in PA prior to the SEM pilot. If staff value PA, a PA intervention like the SEM pilot is more likely to be met with enthusiasm which in turn will facilitate the  |
|       |                              | "I think they tried to implement an active ward previously over at the Churchill before we'd been doing that sort of thing. So I don't think we're coming into a group of people   | implementation of the pilot. Furthermore, the Trust staff<br>are more likely to buy-in to something they think is of<br>value to the patient. Interviewees also said there have<br>been other PA initiatives within the Trust prior to the   |

| Topic | Theme | Quote(s)   | Interpretation/implication(s)                         |  |
|-------|-------|--|---|--|
|       |       | that have never, the doors have been closed and this has | SEM pilot. This may have 'warmed up' the hospital (or |  |
|       |       | never been entertained before." (S2P07)                  | localised areas) to PA interventions making them more |  |
|       |       |  | susceptible to change.                                |  |

# F.2 HCP survey results

# F.2.1 Demographics

Thirteen HCPs completed the baseline survey and 10 HCPs completed the follow-up survey. Therefore 10 participants were identified as having completed both the baseline and follow-up surveys, allowing their data to be matched and analysed. Of these individuals, 80% were female and 20% male, whilst the average age of respondents was 40 years.

In terms of profession, 60% were doctors and the remaining 40% were nurses, working across a range of departments including transplant (40%), obstetrics and gynaecology (30%), Cardiology (20%) and anaesthesia (10%). The average number of years experience in their respective roles was 11.2 years, ranging from 1 year to 29 years. From a patient interaction perspective, 50% of the sample stated they spend >20 minutes engaging with each patient, 30% spend 16-20 minutes with each patient, whilst the remaining 20% stated they spend 11-15 minutes with each patient. These results did not differ between baseline and follow-up stages.

At the time of the follow-up survey, all ten respondents reported they had not completed Clinical Champions training or been involved with any other initiatives as part of this SEM pilot.

# F.2.2 Attitudes, knowledge, confidence and intentions to promote/engage in a conversation about physical activity in routine practice

Respondents were asked to rate a series of statements that focused on their views of promotion/engagement in PA, the results of which can be seen in Table 3.

Table 3 Perceived importance of PA promotion.

| Factor  | Baseline<br>(average<br>score) | Follow-up<br>(average<br>score) | %<br>change |
|---|--------------------------------|---------------------------------|-------------|
| Promoting/engaging in a conversation about PA in routine practice would be (1 = Bad to 7 = Good)  | 6                              | 5.8                             | -3.3%       |
| Promoting/engaging in a conversation about PA in routine practice would be (1 = Unpleasant to 7 = Pleasant)   | 5                              | 4.8                             | -4.0%       |
| Most healthcare professionals promote/engage in conversations about PA in routine practice (1 = Unlikely to 7 = Likely)                                       | 3.4                            | 4                               | 17.6%       |
| How confident or unconfident would you describe yourself in terms of discussing PA with your patients in routine practice? (1 = Unconfident to 7 = Confident) | 5.4                            | 5.4                             | 0.0%        |
| Promoting/engaging in a conversation about PA in routine practice is up to me (1 = Disagree to 7 = Agree)   | 3.9                            | 5.4                             | 38.5%       |
| I intend to promote/engage in conversations about PA in routine practice (1 = Unlikely to 7 = Likely)   | 5.4                            | 5.5                             | 1.9%        |

Additionally, respondents were asked to state whether they had promoted/engaged in conversations about PA in their routine practice in the 3 months prior to completing the survey. At the baseline stage, 90% said they had and this increased to 100% at follow-up.

#### F.2.3 Knowledge of Chief Medical Officers' guidelines for physical activity

At both the baseline and follow-up stages, all 10 respondents stated that they were aware of the health benefits of regular PA. As Figure 1 shows, at baseline only 50% of respondents stated that they had heard of PA guidelines; this had increased to 70% at follow-up.

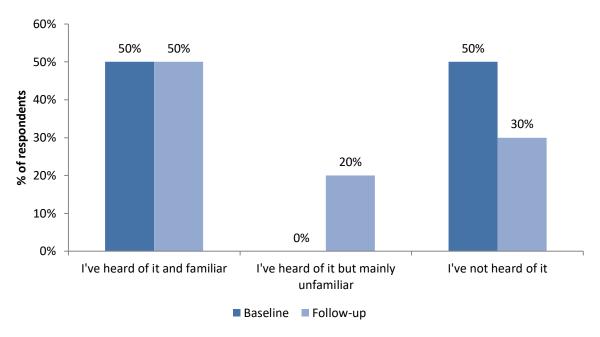


Figure 1 Respondents' familiarity with the Chief Medical Officers' PA guidelines.

#### F.2.4 Training on brief physical activity advice

Participants were asked which, if any, training sessions they had undertaken with respect to encouraging PA (see Figure 2). At the baseline stage, only 20% stated they had undertaken training relating to PA. This doubled to 40% at the follow-up stage. Of this 40%, the greatest increases were seen across two types of training; delivering brief interventions to encourage PA (30% had undertaken this training at follow-up in comparison to 10% at baseline) and use of PA assessment tools (20% had undertaken this training at follow-up in comparison to no respondents at baseline). No respondents reported completing the PA Clinical Champions Programme training or the BMJ PA Module.

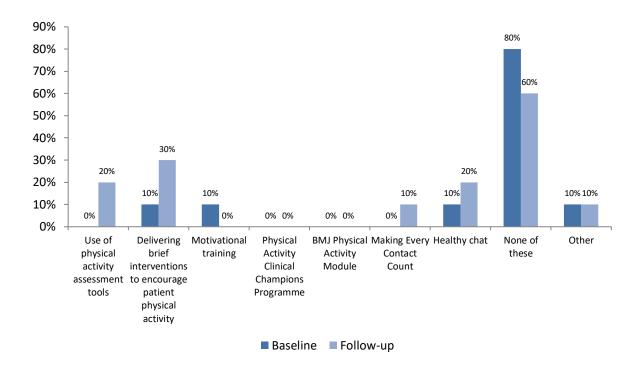


Figure 2 PA training sessions undertaken by respondents.

In terms of self-reported confidence in raising the subject of PA with their patients, there was no change, with 70% of respondents at both baseline and follow-up reporting they felt very (20%) or somewhat (50%) confident discussing the topic with their patients.

None of the participants reported completing any modules on PA during their training, however two individuals (20%) stated that PA training was delivered in other modules, which were outlined as health and wellbeing modules (working in partnership with patients module) and a regional teaching session by physiotherapists that work in Maternity.

#### F.2.5 Referrals to physical activity opportunities

At both baseline and the follow-up respondents were asked whether they had the opportunity to refer patients to a PA pathway from their service. Figure 3 shows that only one individual (10%) stated they had such an opportunity at baseline; however this increased to 50% at follow-up.

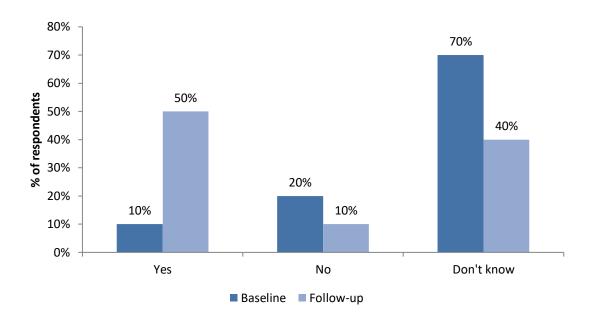


Figure 3 HCP perceived opportunity to refer patients to a PA pathway from their service.

Only one individual at baseline and follow-up stated that they knew what the PA pathway consists of. At baseline, only one individual knew how to refer patients to the PA pathway; however this increased to two individuals at follow-up. Only one of which had referred a patient to a PA pathway in the past 6 months, which was detailed by the respondent as "a local physio led PA" pathway.

# F.2.6 Physical activity resources, use of social marketing materials/leaflets and incentives

At both baseline and follow-up, 70% of respondents stated that they were aware of websites or smartphone apps that promote PA. At follow-up 43% stated they recommend/signpost their patients to these websites/smartphone apps "occasionally/often", as opposed to only 14% at baseline. In terms of which websites/smartphone apps respondents said they recommended to their patients, the most common responses were Couch to 5k and the NHS website, in which 71% and 57% recommended these respectively.

Only one respondent said that they distribute leaflets or other social marketing materials to patients to encourage them to become more physically active; this was stated as a "prevention of Deep Vein Thrombosis leaflet".

Lastly, only one respondent suggested that there is an incentive (financial or other) for the time they spend promoting PA in routine practice. A respondent from obstetrics and gynaecology stated that there are health benefits to be gained, including potential increase in maternal wellbeing/less weight gain during a pregnancy.

# F.3 Enablement patients' experience of a physical activity class and their perceptions of the role of a peer mentor

The tables below contain the main topics and themes that emerged from the analysis of the Enablement patient interviews. A description of each theme is given with direct quotes taken from interviews to help demonstrate the findings and support the researcher's interpretation.

Table 4 Describes participants' experiences of taking part in an Enablement PA class.

| Experience of PA                          | perience of PA based Enablement class/pathway  |   |  |
|---|--|---|--|
| Topic                                     | Theme  | Quote(s)  | Interpretation/implication(s)  |
| Requirement for enabling clinical support | Patients physical and psychological needs post amputation require professional support | "we have got the best surgeons in the world probably, but it takes somebody to pick up the pieces after the surgery which, you know, so physiotherapists to me are my, you know, my absolute go to. You know, they're the people to turn to" (S3PO3)  | MDT teams of HCPs are required to meet the needs of patients in the Enablement pathway.  |
| Patients<br>perception of PA              | The meaning of PA to patients  | "To me, PA means simply moving, being able to walk. Anything on top of that is a bonus for me, to be brutally honest. It's literally as simple as that and being actually able to get out of a wheelchair, which I was in for seven months, to get off a bed, to get off a chair, and walk under my own power" (S3P02)  | The perceived understanding of the term PA needs to be acknowledged for each patient - in order to design interventions that will be appropriate and meaningful to patients.  PA means different things to different people in the context |
|   |  | "Freedom!my hobby is cooking. I love to cook. Some guys love football, cricket, tennis, whatever, or golf. I like cooking. When I can walk around the kitchen initially, just to be able to do that, I'll do it. Sometimes I get a lot of chafing, but if I can do it and I'm pain free or more or less pain free, then that gives me a lot of freedom" (S3P01) | of Enablement - it is often associated with activities of daily living rather than a specific sport or recreational type of activity. In itself taking part in PA is a metaphorical and literal vehicle for moving on after amputation.    |
|   |  | "The PA side of things I find is what keeps me motivated. It's too easy to accept what's happened and just switch off from the real world" (S3P03)  |  |
| Perceived aim of the Enablement           | The medical care team's aim is to get people moving again                              | "It isn't about the gym. It's about exercise. That's where their focus is" (S3P01)  | Patients and staff have clear expectations of what the programme is trying to achieve- namely Enablement underpinned by regaining mobility and getting moving again.   |

| <b>Experience of PA</b>             | based Enablement class                | /pathway   |   |
|-------------------------------------|---------------------------------------|--|---|
| Topic                               | Theme                                 | Quote(s)   | Interpretation/implication(s)   |
| class - to get<br>moving            |                                       | "They want to get us all moving" "There's no - how can I put this politely? - BS about them. They're very, very intense with us and they're absolutely brilliant" (S3P02)  | The aim of the programme is holistic - to support daily activities. Aligning personal aims with the aims and outcomes of the programme may assist patient motivation and adherence. Staff have imparted a sense of positivity that has  |
|                                     |                                       | "I've had a meeting with Dr James and James where they set you a programme and so, for example, the exercise programme you do, they want to get you out and about and you get stronger as you follow the programme" (S3P01)  | in turn given patients a sense of hope.   |
|                                     |                                       | "I suppose the best thing is they've not written me off. A lot of people say you're 78 years old, you just get in a wheelchair and that's where you stay. But they said no. We can get you further than that. And they have" (S3P04)   |   |
| Specific features                   | Class provision - A                   | "Well, we do it in a class. There's usually about three or four,   | Having a structured class means patients have something to  |
| of the PA based<br>Enablement class | bespoke class with HCPs in attendance | maybe five of us at one time and the three physios are there. It's like a rotational class. We go from exercise to exercise to exercise" (S3P02)   | adhere to, it makes the goal of doing PA easier, it assists motivation. It can be difficult to engage with the exercises at home. The group class means there is support on hand to learn the correct techniques of the activity.   |
|                                     |                                       | So I'm on a programme and you get evaluated on the programme, by phone or whatever, and you can go back. And also, I can go back up there at any time. So for example, when I do that mobility, if I want to go to a class up there every week, I can just ring James. You're discharged, but you're not discharged, if you know what I mean?" (S3P01) | The experiences of patients reported that it is possible to combine a group-based class and still also receive a personalised approach thus meeting patients' specific needs. Central to this is the input of trained staff who have the knowledge and the interpersonal skills to create patient rapport and support patient motivation. |
|                                     |                                       | "It's a two-hour slot when you do the physio and then you do the like a keep fit. And usually they're all present thereabouts and whatnot and that's where you get your training and they teach you how to walk again and give you encouragement and everything" (S3PO2)   | Activities within the class or programme are tailored to support the individual patient progress their rehabilitation and be able to resume activities of daily living in due course. The professionals supporting the class have a very positive impact upon the patient and their motivation to sustain their                           |
|                                     |                                       | "I wasn't really that bothered about gym or anything like that.<br>But then of course once you go to the OCE (Oxford Centre for  | PA.   |

| •                              | xperience of PA based Enablement class/pathway  |  |  |
|--------------------------------|---|--|--|
| Topic Theme                    | Quote(s)  | Interpretation/implication(s)  |  |
| Topic Theme                    | Enablement), then when you've had your physio, so you've had an hour physio, then you have an hour of physical exercises and you have to do like circuit training basically around these like, but the interesting thing about that is that everything you do is actually geared towards not just your wellbeing, but the way they've set it up is very clever because it's geared towards giving you strength, giving you balance, and all the things that you need as an amputee" (S3P01)  "it's [PA] been very much just laid on for me, and all I have to do is turn up and the expertise is there" (S3P03)  "you're given a set of skills which you can take away and use at home, but you're also given the motivation to do these exercises as well. Whereas I mean, a gym instructor will say well do this at home, do this at home and you wouldn't. But this, the exercises that I'm given to do, I find the benefit is absolutely fantastic. I mean you really do notice" (S3P03)  "Well you do the exercises they give you, properly really I suppose. Whereas at home you probably, now and again you're | Interpretation/implication(s)  |  |
| Group format<br>therapeutic in | · · · · · · · · · · · · · · · · · · ·   | Despite not having any formal mentors the group class was reported as being meaningful. Of note the patient remarks the group has "evolved" - this suggests that the process of Enablement with peers is a dynamic experience and the future set up of any peer support programmes might want to consider being reactive to the groups changing needs over |  |

| Topic | Theme   | Quote(s)   | Interpretation/implication(s)   |
|-------|---|--|---|
| ·     | Gradual paced progression of exercise         | "So for example, like bench presses I might only achieve three initially when I first started; now I can probably do around 200" (S3P03)  "And it's just the right amount of exercise" (S3P03)   | Patients appreciate having their PA plan mapped out for them, knowing it has been designed by someone with professional knowledge and that it offers gradual progression.   |
|       |   | "Initially I thought oh this is going to be really gruelling, really know you're going to come out pouring with sweat and really aching and tired, but it's just a gradual build up. So he's gradually building it up. But doing it really carefully and really nicely. I've never pulled any muscles or had any real serious" (S3P03)                 |   |
|       | More than exercise -<br>learning life skills  | "The best part is, I think has been learning life skills, after an amputation that everything, you know, you have to really plan even the minimum task you have to really plan what you're going to do" (S3P03)  | Enablement is more than rehabilitation exercise, it also encompasses planning and managing life skills.   |
|       | There is a clear patient-<br>centred approach | "The big thing I'd say is if you want to say one thing about the people that have dealt with me from Bob Sharpe, Henderson Slater, or Nurse Tina, she's the amputee nurse for the prosthetics for the physio, there's no stars up there ( <i>referring to HCPs</i> ), they don't see themselves as stars; if anything, they make you the star" (S3P01) | The style in which staff interact with patients can be empowering for the patients. The empowering style of interaction encountered by patients across the MDT team of doctors, surgeons, nurses, physiotherapists and occupational therapists was warmly received. |
|       |   | "The ball's in your court, you know" (S3P01)  "You get a lot of care - a better word. You get all of that and you get as much of it as you want. It's not overpowering, but you can get what you want " (S3P01)  | It is important to help patients have a sense of ownership of their engagement in the class or programme. Facilitating ownership has come about through skilful communication from the healthcare staff and by having clear programme aims.                         |
|       |   | "And so you constantly given a progress update which I find encouraging" (S3P03)   |   |
|       | Information giving and signposting are given  | "Giving us information about outside activities, sports like golf and archery and stuff like that. Yeah, they're all very good" (S3P02)  | Providing options for continuity of PA beyond the hospital is necessary. Meeting the needs of patients in terms of Enablement will mean connecting with other agencies  |

|       | of PA based Enablement class, Theme                                       | ri e e e e e e e e e e e e e e e e e e e  | Interpretation/implication(s)  |
|-------|---|---|--|
| Topic | meme  | Quote(s)  |  |
|       |   | "Now, there's a girl called Angelina, I've only met her on email -<br>but with James as well, because they're all looking after you -<br>and she's arranged for me to do something I'd like to do, which is<br>like yoga and Tai Chi, the general exercises that I can do" (S3P01)  | (including non-NHS) who can support patients in the community.   |
|       |   | "So they've got loads of advice for me about some of the things I could join. So I'm looking forward to that" (S3P01)   |  |
|       | Varied and interesting PA options   | "They're always coming up with new things for us to do" (S3P02)   | Options to suit different preferences are recommended. In a group setting it may be difficult to meet everyone's preferences but having a variety of options might also prevent boredom from setting in.   |
|       | Supportive, positive, encouraging atmosphere created by staff             | "Dr Ivan. He's good. He's very encouraging" (S3P02)  "He's allowed me to talk and he's very understanding, empathetic. He's a top bloke really, to be brutally honest" (S3P02)  | An empathetic and understanding approach underpins the staff's interaction with patients. This style of interaction helps patients come to terms with their amputation and overcome challenges during recovery.  |
|       |   | "And they've all been very good to me [healthcare staff]. The whole journey from when I lost my legs has been good. Because one day I had them then I haven't got them. And everybody helped me. The hospital and Nuffield " (S3P04)  |  |
|       | A personalised approach is welcomed and enabling                          | "It's helped me a lot because it gives me one-on-one encouragement where it's a little bit more involved than doing the gym circuits, but it's enabled me to talk about my problem" (S3P02)   | The format of how support is delivered can be enabling in itself - by providing dedicated one-to-one support for the patient there is opportunity to pick up on other important issues they have - or want to discuss. Providing time for patients to explore their needs therefore should be considered a key part of the class or programme. |
|       | Opportunity for social support and talking built into the programme/class | "And again, we sit and we chat after a class. We'll have a cup of tea or a coffee and we sit and we have a chat and they've all got good things to say about how they're being treated, how they're being helped, how the physios are with people, how they talk, how they encourage, everything like that, yeah" (S3P02) | Providing an opportunity for informal social support is an additional benefit to the class which is highly valued. Class attendees share experiences about challenges they have faced as a results of their amputation and share tips on how to overcome them.   |

| Experience of PA  | xperience of PA based Enablement class/pathway                     |  |  |  |
|---|--|--|--|--|
| Topic   | Theme  | Quote(s)   | Interpretation/implication(s)  |  |
|   |  | "But I find also being with other amputees is a good source of information because whereas upon the particular task I might find difficult so then I will discuss it with another amputee and they'll say why don't you try it this way?" (S3PO3)  "Well I've learnt exercises to do and how to keep fit. And I've seen other people and talked to them with the same problems as you've got, helps you" (S3PO4) |  |  |
| Perceived<br>benefits of taking<br>part in an<br>enablement class | Perceived physiological<br>benefits of taking part in<br>the class | "The things like the breathing, cardiovascular-type exercises I find help me because it tends to give me energy" (S3P03)  "Well I think I'm fitter. I'm quite fit for someone who's, I'm 79 next week. For somebody who's 79 in a wheelchair with no legs. And I think I'm quite fit. In fact I know I am because by what the physios tell me" (S3P04)   | Physical benefits are "felt" - such as having more energy but also directly hearing the message from professionals that the patient is getting fitter is reassuring.   |  |
|   | Informally supporting others is perceived as valuable              | "And if we can help each other out then that's why we're there" (S3P02)  | In the absence of a formal peer-to peer-support programme patients still recognise and report that helping others is linked to their involvement in the class. It seems implicit for those interviewed that there is more to being in the class than simply taking part for oneself. Patients are generally willing to give something back and share their experiences - but it should not be assumed that everyone wants to receive peer support or adopt a formal peer mentor/or peer-to-peer support role - see later entry receiving peer support and/or being a peer mentor isn't for everyone. |  |
|   | Supporting others also helps yourself                              | "but who knows what other people are going through? And if I can help support them a little bit, it helps me as well" (S3P02)  "I've got other problems involved in it, but if I can help somebody else, it does me good" (S3P02)  | Patients reported feeling good as a result of helping others.  Being able to offer peer support may also be therapeutic for the individual providing the support.  |  |
|   | Enablement class supports other condition                          | "To be honest, since my amputation my mental health problems have got worse" (S3P02)   | The setup of any programme needs to recognise that patients could also have mental health concerns arising from their  |  |

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| <b>Experience of</b> | xperience of PA based Enablement class/pathway |   |   |  |
|----------------------|--|---|---|--|
| Topic                | Theme  | Quote(s)  | Interpretation/implication(s)   |  |
|                      | management - mental<br>health                  | "Initially, from the amputation, above knee amputation I found myself quite deep in to depression" (S3P03)  "Low points, you get lots of them. Because you get depression" (S3P04)            | amputation or an already existing mental health condition being exacerbated.  |  |
|                      | Peers have similar needs                       | "We're all in the same boat. We all have the same problems with<br>the amputations. Maybe not so much with mental health-wise,<br>but who knows what other people are going through?" (S3P02) | Patients feel they have similar needs to other patients receiving treatment in the Enablement pathway which aligns well with a group exercise class and peer support programme. |  |

# Table 5 Participants thoughts about what makes a successful Enablement PA class and patients perceptions of key features of future peer-to-peer support programmes.

| What makes a su  | hat makes a successful Enablement PA class and future peer-to-peer support programme?  |   |  |  |
|--|--|---|--|--|
| Topic  | Theme  | Quote(s)  | Interpretation/implication(s)  |  |
| Individual experience and characteristics of the peer mentor | Patients previous experience of mentoring or supporting others may influence outcomes  Having the right competencies and experiences to be a | "I've always been a trainer. Always through my working life, I've always helped people to get along and to train them and to give them the benefit of my experience if I possibly can. And I believe that one-on-one training works the best. So one-on-one, working with somebody at the same level, or even somebody above you, is one of the easiest ways to learn and get on" (S3P02)  "There's more to peer-to-peer health than what it sounds like" (S3P02) | For a peer-to-peer support programme to be successful it may be necessary to consider patient's previous experience of mentoring, their suitability to become a mentor, their competencies as a listener and their ability to be empathetic. Not everyone will have the requisite experience or desire to be a mentor - additional training may be required.  Mentoring was reported as complex and therefore it may require the patient mentor to have certain competencies to deliver successful outcomes. Setting, processes, |  |
|  | mentor   |   | communication skills and mentor characteristics need careful consideration.  |  |
|  | Know your limitations as a mentor  | "you've got to follow through afterwards with information if that person needs information or if you can't help them, to pass them onto somebody else" (SP302)  | Self-discipline is needed to know your limitations as a mentor and knowledge of how to refer to other services/experts.  |  |

| Topic | Theme   | Quote(s)  | Interpretation/implication(s)  |
|-------|---|---|--|
| -     | Being an empathetic mentor  | Sympathy isn't enough. It's empathy that they need" (S3P02)   | Patients recognise there is a distinction between listening or offering sympathy and being able to mentor a fellow patient.  |
|       |   | "But to be able to listen and talk to somebody about what's going on and what happened sensibly and intelligently is difficult" (S3P02)   | Mentoring is thought to be a shared process - between the mentor and the mentee. Peer mentoring requires a sound, balanced appreciation of fellow peers mental and physical needs. As such this may require upskilling patients to become  |
|       |   | "Trying to understand people, I think. That's one of the things. And help them if they want help. You can't help somebody if they don't want helpWhat you should do? Understand them. Both physically and mentally really" (S3P04)  | peer mentors.  |
|       | Being a good listener is<br>part of being a good<br>mentor              | "A listener, but they also need to be able to talk about what they're hearing, not make assumptions how people feel. Because the worst thing anybody can say to any of us: yeah, I know how you feel. No, you don't. You've no idea. Take your leg off. Let me take your leg off and see how you feel. I've had it said to me a couple of times, unfortunately, I know how you feel. No, you don't. You haven't got a clue. They need to be a listener, a talker, an empath really" (S3P02)   | Future peer mentors need to adopt a non-judgemental approach, and be capable of asking questions and listening well this is a complex set of skills - training may be required.  |
|       | Receiving peer mentoring and/or being a peer mentor is not for everyone | Have you been involved in what we call a peer-to-peer support programme where you're mentored by a fellow patient?  "No, I haven't. And to be truthful with you, it wouldn't have been something that I'd have been comfortable with. I'll chat away with you on the phone, but I'm quite a private guy. I don't make friends as such and I sometimes with people, if I think that people are asking me questions for their own benefit or for their own, I don't know. It's hard to explain the type of person I am" (SP301)  "I don't mind sharing the experience and whatnot. What I dislike is do you know when somebody says poor me and they're feeling sorry for themselves and everything else? The good thing about the staff up there is nobody feels sorry for you. You're not | Although patients report enjoying and benefiting from the camaraderie of their peers and the opportunity to talk, for some patients they do not wish to formally engage in peer-to-peer support - either receiving peer support or engaging in conversations that might be perceived as personal or uncomfortable. Previous history of other conditions such as mental health conditions may mean some patients do not wish to engage in peer-to-peer support programmes. It cannot be assumed that the peer-to-peer support model will suit everyone and the group based format that developed authentically during the pilot phase of the pathway is potentially more suited to Enablement patients. |

| Topic                               | Theme   | Quote(s)  | Interpretation/implication(s)   |
|-------------------------------------|---|---|---|
|                                     |   | unique. They're very caring. They're very loving, they're exceptional people. But they don't make you feel like that" (S3P01)   |   |
|                                     |   | "I don't mind helping other people, but I don't like this one-on-<br>one thing because people can get personal" (S3P01)   |   |
|                                     | Personal characteristics of the patient can influence the success of outcomes | "So I went in with the attitude that I had to work to wearing a leg. And I did work. And I'm very focused. That comes from my previous life. I don't give up" (S3P01)   | Previous life experiences and personality may account for how well some patients engage with the class or programme. If patients don't have the ability to draw upon previous experiences then building up psychological resilience and focus may need to be considered as part of the programme. |
| Features of the<br>Enablement class | The whole approach adds value   | "Do you know the whole thing is of a value as far as I would say. It's not just one aspect of it. It's the whole group working together and the encouragement of everybody that's there, not just the physios and the doctor. It's everybody else, as patients, helping each other out. And I think it's good we can talk about what happened to us because it is massively life changing " (S3P02) | Creating Enablement via PA involves numerous factors, having a programme or class that can address multiple needs - physical, social, psychological and emotional seems to be of value to patients.   |
|                                     | Facilitated access  | "They provided hospital transport because obviously I couldn't drive and my wife, she couldn't take time off work" (S3P01)  "I come to the fitness class on a Tuesday, I've also been introduced to horse riding which I do now through the physiotherapist. That was all organised. All I had to do was turn up and now I go horse riding on Thursday" (S3P03)                                     | Supported access to class or support programme might be needed for some depending on mobility status, personal circumstances. This could also be a challenge for the sustainability of the activities as patient transportation requires additional resources.                                    |
|                                     | Face-to-face format   | "You have to be able to sit with someone because you can see in their face what. You can't hide your facial expressions and you do need to be able to see, I think you need to be able to see in the other person's face that they do understand and they are listening and they are willing to help in any way they can" (S3PO2)   | There should be opportunity to observe non-verbal communication within the peer support approach.   |
| Staffing                            | Encouraging/motivation al support from staff                                  | "But they do get us moving, get us shifting, encourage us" (S3P02)  | Encouragement is received in various formats - verbal communication and in the form of monitoring and progress  |

| Topic  | Theme   | Quote(s)   | Interpretation/implication(s)   |
|--|---|--|---|
|  |   | "And so you constantly given a progress update which I find encouraging" (S3P03)   | reports. Both types of encouragement reportedly assist motivation.  |
|  | Clear and direct communication  | "There's no - how can I put this politely? - BS about them. They're very, very intense with us and they're absolutely brilliant" (S3P02)   | Clear communication from staff about the expectations they have for patients in terms of their rehabilitation and Enablement is valued by patients. For some a direct approach is valued.   |
| Enhancing the Enablement PA class or a peer- to-peer support programme in the future | Increasing staff capacity to deliver Enablement pathway                 | "my answer when it comes to the NHS: there's not enough of them and there isn't enough money, it's as simple as that. The people we have don't need any kind of improvement at all. We just need more of them" (S3P02)  "I think there's a limit to how many patients that could be, that the physiotherapist could encounter at any one single time because a) there's always people, people will always fall I've found and so if I were to become a mentor for example it would take some pressure of the physiotherapist and give more patients the opportunity to be able to come in and be involved" (S3P03)  "Physios are very important. Very important. And even the young ones that come in and help the head ones are good. They help you. They're all good, they're all important. And you need hospital staff, nurses and the physios to encourage them to get out of bed and do some exercises and do something" (S3P04) | Patient perceived the service to be under-resourced and suggested increasing staffing capacity would be beneficial. Patients see several professionals throughout the journey and they consistently value their input and professionalism and acknowledge it is the professional who help them to progress post amputation. |
|  | Peer-to-peer encouragement important from an expert patient perspective | "I would certainly be encouraging encouragement and support is massive " (S3P03)  "Encouragement and help. It depends on what their disability is doesn't it? I mean if they've lost legs then even talking to them can help them. It can be done" (S3P04)   | Giving encouragement to peers is recognised as being one of the main roles of a peer mentor. It was the first thing that was mentioned by these two patients when asked what they could offer as a peer mentor.   |

| What make | What makes a successful Enablement PA class and future peer-to-peer support programme? |  |   |
|-----------|--|--|---|
| Topic     | Theme  | Quote(s)   | Interpretation/implication(s)   |
|           | Sharing and learning from the lived experience of amputation                           | "Well the obvious, the friendly and the understanding and because I've been there and I know. I know about the phantom pain and I know about all the little things. I know the shock you go through when you fall, even though you're not hurt, it's just a shock" (S3P03)   | Offering education to fellow patients by virtue of sharing one's own experience could be of value. The mentee could be more responsive and accepting of support from the peer mentor if they feel they have lived similar experiences.  |
|           | Peer mentors need training   | "First aid training I think would be and also blood sugar level they check. That can be quite scary can't it, just a couple of guys have sobbed when they've gone over. That would worry me" (S3P03)  "You do need a bit of training because training is important. You can't just throw people in the deep end and say this is what you've got to do. They need training" (S3P04) | First Aid training and specific practical skills training might be needed if patients are expected to deliver peer-to-peer support formally. A potential requirement in the future might be to audit patient skills and knowledge. Motivational interviewing training could be a useful training aid. |
|           | Reasonable expectations of peer mentors  | "I probably would. It depends where they were. I mean I'd support anybody outside if I could. But it's one of those things. It's where they live, where they are. I certainly wouldn't want to be able to get to them because that means my wife's got to take me. And I can't get her doing any more than she does now" (S3P04)   | For some patients their own restricted mobility or ability to travel to others will limit what they can feasibly offer.   |

## F.4 Acceptability of an active ward in the Renal pathway

The tables below contain the main topics and themes that emerged from the analysis of the Renal ward HCP interviews. A description of each theme is given with direct quotes taken from interviews to help demonstrate the findings and support the researcher's interpretation.

Table 6 Describes what worked well with regards to the SEM pilot in the Renal ward.

| What worked we              | ell on the Active Ward                    |   |  |
|-----------------------------|---|---|--|
| Topic                       | Theme                                     | Quote(s)  | Interpretation/implication(s)  |
| Related to the intervention | Using motivational interviewing           | "Over the last few months we've been seeing the kidney transplants mainly for motivational interviewing and just getting them talking about PA So the motivational interviewing sessions have probably been the biggest thing. So I sit down with patients and ask them about PA. How they were before their surgery and if doing a bit more since their surgery is something they want to do". (S5P01)  "So motivational interviewing from the Renal side of things the motivational interviewing's goal setting conversation has worked really well they have enjoyed the opportunity to talk about their activity, again getting that permission to do something". (S5P01) | Both HCPs discussed motivational interviewing multiple times. The patients seemed to respond and staff who received training had commented on the value in it.  Relevant staff should receive training in motivational interviewing and all patients should have the opportunity to receive motivational interviewing if possible. |
|                             | Raising awareness of<br>the PA guidelines | "So the NHS Guidelines and what they're recommending and whether we're sort of matching up to those A lot of patients aren't actually aware of what the guidelines are and most of the patients that I come in contact with want to do a little bit more than they have". (S5P01)   | There was a clear need to educate both staff and patients about the PA recommendations and there was a desire from patients to do more.  Social marketing is needed to inform about the guidelines.  |
|                             | Making the case for PA                    | "PA is something that's not really been focused on really. So it's been really nice to be part of the project and putting the posters up and shouting about what we do, wearing the lanyard. Getting patients thinking about PA which again is not something that they've really been, had to stop and think about before". (S5P01)   | The pilot has increased the importance of promoting PA with ward and senior staff. Staff are making a conscious effort to ask about PA.  |

| What worke | /hat worked well on the Active Ward  |  |   |
|------------|--------------------------------------|--|---|
| Topic      | Theme                                | Quote(s)   | Interpretation/implication(s)   |
|            |                                      | "I think it's the sort of conversation that's historically been fairly low on the agenda, so patients do get asked about smoking and they do get asked about drinking and they I think have quite a lot  |   |
|            |                                      | of conversations about diet. The PA question hasn't routinely been one that's been asked". (S5PO2)   |   |
|            | Educating patients and staff         | "I think education is one of the most important things. So as long as everybody knows why we're doing what we're doing it can have a positive effect". (S5P01)   | It is important to not only educate the patients about benefits of PA but also to communicate clearly to staff why the interventions are being implemented.   |
|            | Capitalising on opportunity early on | "I think the patients really appreciate the opportunity to speak about activity. They're always a little bit surprised when I come quite so soon after the surgery". (S5P01)   | Patients were surprised to be having conversations about moving and mobility so soon after surgery but both HCPs stressed the need to get them moving the next day.   |
|            |                                      | "We've now got on that platform a PA calculator. And there is a space on there for PA to be part of the conversation that all patients have when they come into the hospital". (S5P02)   |   |
|            | Goal Setting                         | "I would say when you have a really good conversation with a patient about PA and you're doing the goal setting, that's really nice. I think being able to just, you know, even influence a couple of people makes it worthwhile". (S5P01)                                     | Setting clear goals is important for the patients. The staff feel they have achieved something if they are supporting their patients to make positive lifestyle changes.  |
|            | Simplicity is key                    | "Talk to your patients. Just talk to your patients about PA. It's as simple as that really. I don't know how many other people would normally do that". (S5P01)  | This supports NICE guidance that brief advice can have an impact. Simply talking to them and starting a conversation around PA can make a difference.   |
|            | The right time to promote PA         | "I just think the feedback we've had from patients has been overwhelmingly positive. And particularly one of the questions in the questionnaire we give is, is this the right time to be talking about PA? And I believe the majority of people have said that it is". (S5P01) | Whilst a day after surgery seemed early on both HCPs commented that patients have had a life changing event representing a 'teachable moment' which could be the catalyst for behaviour change.  Data suggests patients thought it was acceptable to begin to discuss PA the day following surgery. |
|            |                                      | "I was interested to know whether they thought that conversation was too soon because it's very early days after surgery. But actually from the feedback that I've had from the few patients I've asked that question, they felt it was just right". (S5P02)                   |   |

| What worked w                 | What worked well on the Active Ward  |   |  |  |
|-------------------------------|--------------------------------------|---|--|--|
| Topic                         | Theme                                | Quote(s)  | Interpretation/implication(s)  |  |
|                               | Role modelling                       | "I've watched you do that, I could do with something So that role modelling of people wanting to be part of what other people are doing, so I think that's very powerful, yes". (SSP02)   | Patients on the ward would see other patients being supported to be active or moving around which encouraged them to do the same.  |  |
|                               | Increasing interaction with patients | "So physios will have that interaction and occupational therapists might be doing some activity with a more functional approach.  And then very varied as to how much interaction you'll get from nursing staff". (S5P02)   | Increasing interaction was deemed important which links clearly to the making every contact count initiative.  |  |
|                               | Positive outcomes                    | "When I've spoken to them on the phone they're definitely, some of them like I say would have been active anyway. But when I've spoken to them on the phone they are thinking about what their activity might look like and they're thinking about what they're trying to achieve as part of their recovery process". (S5P02)   | Whilst specific impact evaluation measures were not measured or recorded both HCPs were confident it had increased the patient's PA levels.  Future work should evaluate the impact of the intervention on behavioural outcomes. For example, measure PA levels pre and post intervention. |  |
|                               | Sustainability                       | "Well I think that's very sustainable That's what we've been trying to look at is how it would run without too much extra resource if you've got other members staff that are able to have those conversations and work through that workbook then that becomes easier and it's not just the physio's job, it would be nice for that to be anybody's job. (S5P02)   | For activities to be sustainable it is important they do not require too much additional resource in an already stretched NHS environment.   |  |
| Related to the staff involved | All staff should be involved         | "I think anybody that has any contact with patients at all should be broaching the subjectHaving the whole MDT involved and sharing the same vision about what we're trying to achieve with an active ward". (S5P01)  "I think that's the overall perception for staff is that if it's something related to that then it's their role". (S5P02)  "I think medical team are very keen for PA and from the work | Both HCPs felt strongly that all staff have a responsibility to promote PA. It should be embedded across all wards and treatment pathways.   |  |
|                               |                                      | that we've been doing we've got a good engagement with them". (S5P02)   |  |  |

| What work | Vhat worked well on the Active Ward   |   |  |
|-----------|---------------------------------------|---|--|
| Topic     | Theme                                 | Quote(s)  | Interpretation/implication(s)  |
|           |                                       | "Patients and HCPs, so at all levels. So physios really like it, OTs like it, nurses like it, medics like it. So people are excited by that". (S5P02)   |  |
|           | Physiotherapist presence is important | "At the moment on Wytham we've got posters up to try and encourage patients to get moving. Physio presence is quite important as well". (SSP01)   | Whilst social marketing materials e.g. posters and the provision of educational leaflets were deemed to be positive it was noted that physical presence and intervention by the staff was important.   |
|           | Changing attitudes                    | "So actually when I did the motivational interviewing training I then did an in service training for the team just to give them a snippet about what motivational interviewing is. And I think that stuck quite well and people have been broaching the subject a little bit more and speaking to their patients". (S5P01)  | Even a brief training session on motivational interviewing by the HCP who received the training had encouraged other staff to use this behaviour change technique.   |
|           | Buy in from senior staff              | "So the ward has been amazing. The sister's brilliant. She's pretty much said you can do whatever you want to with this moving medicine thing. Put posters on the walls, you can take patients off the ward as long as it's safe to do so. Yeah, pretty much let us run with it to do what works best for us and our patients". (S5P01)   | This clearly relates to the importance of having a 'champion' in a senior position to support implementation.  |
|           | Clear communication and compromise    | "Trying to perhaps compromise. So one of the things, and also explaining clearly what it is. Because sometimes the barriers are put up because of the perception, either because it's going to make more work or take up too much space or just add to general lists of things to do. So it's making it very clear and making it that we're not trying to add extra, we're trying to make life easier than add to burden already her immediate line manager, her main concern is that the work that is their regular work gets done". (S5P02) | Whilst communicating the correct information about PA promotion and educating staff is of paramount importance, the reason for doing the intervention needs to be communicated clearly. More so to reassure staff that it will not create extra work but will lead to time savings in the long-term. |

| What worked we             | What worked well on the Active Ward |  |   |  |
|----------------------------|-------------------------------------|--|---|--|
| Topic                      | Theme                               | Quote(s)   | Interpretation/implication(s)   |  |
| Related to the environment | Other wards involvement             | "And yes, so with patients over on the medical ward the physios particularly were really interested in the exercise programmes and things that I've written for that. So that informed their practice as well which is quite interesting, they were routinely with the elderly people doing exercises with patients. So they've now got the exercise programmes and it's something that they are beginning to build into their pathway". (S5P01) | The promotion of PA on the Renal ward is having an impact on staff on other wards who were visiting. They were keen to know what was happening on the Renal ward and change their own practice. |  |

## Table 7 Describes the challenges that were faced with regards to the SEM pilot in the Renal ward.

|                | on the Active Ward   | 2 (1./.)  | Later and all and Provide Art Art                              |
|----------------|----------------------|---|--|
| Topic          | Theme                | Quote(s)  | Interpretation/implication(s)                                  |
| Related to the | No peer mentoring    | "That's not happened as yet. We've investigated about meeting   | The intention of the lead SEM consultants was to develop a     |
| intervention   | scheme               | up with patients in their pre-transplant seminar, but that's a  | peer mentoring scheme within the Renal pathway, however        |
|                |                      | really information intensive afternoon. So it's perhaps not   | this did not happen. The patients largely being in isolation,  |
|                |                      | appropriate at that time, but we're still looking at ways that we might have to engage with people before they come in to | limited social space and admission time was an oversight.      |
|                |                      | hospital and start a short conversation before then" (S5P02)  | Whilst this was not transcribed verbatim it appears that       |
|                |                      |   | patients were developing camaraderie from the group            |
|                |                      |   | exercise sessions anyway.                                      |
|                | Short admission time | "One of the things from a peer mentoring side of things would be  | Patients were only on the ward for a couple of days either     |
|                |                      | if the peer mentoring is going to be taking place on the ward is  | side of surgery restricting the time to establish rapport with |
|                |                      | the really short admission time for people who are having Renal   | other patients and form peer mentoring relationships.          |
|                |                      | transplants". (S5P02)   |  |
|                | Pre-op not available | "So pre-op education is not something that we're involved in at   | Research regarding the importance of prehabilitation is        |
|                |                      | the moment. It's something that we would like to be. But I think  | burgeoning and there is a demand that Renal patients are       |
|                |                      | there's been some difficulties with information overload with   | offered prehabilitation or at least educated about the         |
|                |                      | patients coming for education days and things. But yeah, I think  | importance of PA.  |
|                |                      | the pre-op side would be a really good thing to focus on as well".  |  |
|                |                      | (S5P01)   | However, information overload is a concern and PA is not       |
|                |                      |   | necessarily a high up on the agenda.                           |

| The challenges                | The challenges on the Active Ward      |   |  |  |
|-------------------------------|--|---|--|--|
| Topic                         | Theme                                  | Quote(s)  | Interpretation/implication(s)  |  |
|                               |  | "So I'd like to see that we start that conversation before transplant and find a way of getting at least a bit of a flyer into the system before we get to the ward situation". (S5P02)   |  |  |
|                               |  | "It'd be great if people were building up their PA before they had their surgery that'd be even better. So we haven't done anything there. (S5P02)  |  |  |
|                               | Impact of pilot on outcomes is unclear | (Referring to discharge times, mood or attitude) Not that I am able to observe From the medical wards we've not been through enough patients to see that sort of impact, it's been nice to think that by getting people generally more active, up, dressed, exercising, moving about it'd be nice to think that we reduce the length the stay and prevent deterioration. That'll be really difficult to show in this very short term". (S5P02)  | More objective measures are needed to record any changes to outcomes such as average discharge time. An evaluation team should be formed to measure and capture these impacts over a longer period of time (minimum 2 years).  |  |
|                               | Visibility                             | "Keeping visibility of the project and keeping visibility of the message". (S5P02)  | Messages need to continually be reinforced, social marketing and poster boards updated frequently and action taking place on the ward daily.   |  |
| Related to the staff involved | Lack of time                           | "I think some difficulties that we've had potentially are to do with staffing and time. We were initially doing a walking group with our kidney transplant patients which was a great idea. But in reality it didn't sort of play out the way we wanted it to not all the patients are always ready. So from a time perspective having to go and get the patients was quite difficult" So ideally we'd be getting patients up into the gym and getting them doing exercise as soon as possible. But sometimes we're a little bit delayed with that which can't be helped because a nurse needs to be with them at all times". (S5P01) | Time is the greatest barrier to a physically active lifestyle and was reported here in its promotion on the wards. This lack of time is mostly due to lack of staff at present and many competing priorities. Despite this it was very clear every effort was being made to make time. |  |
|                               | Other priorities                       | "And obviously there's other important things going on, drugs need to be done, obs need to be done". (S5P01)  | The other priorities are reducing the time available to promote PA as highlighted directly above.  |  |
|                               | Lack of staff                          | "I think it's been slightly difficult for us in particularly because we're really short staffed. We're missing a couple of band 5sso ideally we'd be getting patients up into the gym and getting them doing exercise as soon as possible. But sometimes  | Low staff reducing time to promote PA which has been raised previously.  |  |

| The challenges      | The challenges on the Active Ward         |  |  |  |
|---------------------|---|--|--|--|
| Topic               | Theme                                     | Quote(s)   | Interpretation/implication(s)  |  |
|                     |   | we're a little bit delayed with that which can't be helped because a nurse needs to be with them at all times". (S5P01)  |  |  |
|                     |   | "On Renal ward they were having a real crisis of staffing when we first started". (S5P02)  |  |  |
|                     | Building relationships with wards         | "But what was very clear straightaway was that we might go up there and do an exercise intervention for example, but unless you've got a relationship with that ward it was difficult for that to be carried over beyond that window of time that you're with  | Pre-existing relationships between SEM team and ward staff made it easier to implement PA interventions.  At the start of any intervention connections need to be made   |  |
|                     |   | the patient. So it became very clear that it was the whole ward environment that was that was more important to work with, yes". (S5P02)   | so rapport can be established and relationships built.   |  |
|                     | Lack of knowledge about the PA guidelines | "I've done a little bit of work looking at knowledge and often<br>staff don't have good knowledge of, for example government<br>guidelines of what's expected, so that's difficult". (S5P02)   | Some staff did not know the PA recommendations so education is needed and they should be signposted to the 'start active, stay active' document.   |  |
|                     | Lack of training                          | "People feel that they either haven't got enough time to have<br>these sorts of conversations or they don't feel that they're<br>adequately trained to have those conversations". (S5P02)  | There is a clear need for training in those that require it. What training is needed could be gleaned during meetings or appraisals with line management.  |  |
| Related to patients | Different levels of fitness and ability   | "And also with varying levels of ability among the transplant patients, some people are really active, some people not so much. And I think putting them all in a walking group together was quite difficult The patients that haven't been so appropriate tend to be the ones that are fitter already and don't really need our support with that". (S5P01) | There was a clear difference in the level of ability, fitness and willingness to undertake PA in the Renal patients. This could cause patients to become demotivated, for example, if they do not feel like they are being challenged, or conversely, if they feel they are being left behind. |  |
|                     |   | "There was also the difficulty of people being at very different levels. From somebody that's very active before they came to hospital to somebody that can only really stand for a few minutes before they came to hospital. So there's those sorts of issues". (S5P02)   |  |  |
|                     | Limited access and scope for improvement  | "I think, I see them for such a short period of time on the ward I probably haven't seen a huge amount personally". (S5P01)  | Staff did not anticipate a huge change in such a short time frame. This also links to the short time scale that the patients are on the ward pre, during and post-surgery.   |  |

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| The challenges             | The challenges on the Active Ward                           |   |   |
|----------------------------|---|---|---|
| Topic                      | Theme   | Quote(s)  | Interpretation/implication(s)   |
| Related to the environment | Patients being in individual rooms and lack of social space | "Unfortunately we haven't got a day room, having some reason for the patients to move around and to get out of their side room. So a day room, you know, activities happening together as a group might be quite positive". (S5P01)   | The environment on the Renal ward would need to change to encourage more interaction between patients for a peer mentoring scheme to be successful. A dedicated space to socialise would lend itself to a peer mentoring programme. |
|                            |   | "The other thing is on the Renal ward all the patients have individual rooms, so that doesn't naturally facilitate cross conversation. And there isn't an area on that ward for a space for them to go and chat together, so there isn't a communal area on that ward, so the environment does not facilitate that easily". (S5P02) |   |
|                            | Reliance on medical equipment                               | (Regarding a led walk) "So there was a three p.m. meet. Now the difficulty with that is you've got then there's the requirement for patients to be ready for that. Which when people are all connected up to all sorts of manner of equipment that can be tricky". (S5P02)  | Whilst led walks were organised daily for a certain time many patients were late due to their reliance on medical equipment which made it difficult to move about.  |

The table below presents pertinent topics identified from the interview conducted with a Renal ward patient.

#### Table 8 Feedback from a patient who received treatment in the Renal pathway.

| Topic   | Quote   |
|---|---|
| People at the hub are professional  | "People in the hub are very professional in what they are doing, they know what they are doing and everything that was explained to me happened".   |
| Surprise at being in isolation  | "I was surprised at being in a single room on the ward itself. But then again I can understand it as they are trying to reduce any chance of infection. So that is the reason why you are in an individual room".   |
| Early mobilisation (exercise booklet was provided - Assume Moving Medicine) | "What happened 2 days before I came out a physiotherapist or nurse came round and said that I need to think about doing some exercise. They were very simple exercises, they gave me a booklet. So you sit up and get down, but obviously because you have got a wound it's trying to not put too much strain on it, but to get it so you can manoeuvre rather than sit in one position. That's a good idea". |

| Topic                                    | Quote  |
|--|--|
| Patient's condition influences           | "Undertaking PA Depends on the patient and the condition they are in obviously. I mean, the physio team are quite clever in  |
| whether they undertake PA                | devising a series of exercises depending on the actual condition of the patient and what their illness may be. So they can't put them on an athletes regime but do something simple that makes them manoeuvre their joints if you know what I mean". |
| Unclear whether PA is part of the        | "I just don't know if it's officially part of their treatment. Personally I think it should be. After day 3 out of the op there was a  |
| treatment pathway                        | physiotherapist intervention where a lady tried to help me to walk. But it depends on the condition of the patient. It would have to be the medical team make that decision".  |
| No offer of peer mentoring opportunities | "No I wasn't offered, but then again I'm motivated anyway. I couldn't wait to get back to swimming"  |
| A peer mentoring scheme would            | "Yes that would be an idea to motivate. People might be feeling a bit low after the operation when there is a chance to meet other   |
| be worthwhile                            | patients have gone through it".  |
| Must have experienced surgery            | "What type of person, uh I guess a patient who has gone through the same treatment. They would be very good and actually make  |
| /the procedure to be a good peer         | the patient who is just going through it more relaxed Encourage them to go their local sport centre and see what facilities are  |
| mentor                                   | available".  |
| Training would be needed to be a         | "I'm not clever enough to know what [exercises] that would be. What would be a good idea is that the part of the pack you get  |
| peer mentor                              | when you come out is, while you are in there some information is given about the local centres".   |
| Peer mentors should answer               | "I think first of all somebody who is able to answer any questions that somebody might have after coming out of the operational  |
| questions                                | stage and going into recovery mode. What they expect and what they can do. I was basically mobile after day 1 but I'm sure others aren't".   |
| If given the opportunity would           | "Yes I would. If they are asking for financial support no chance, but I can give encouragement or lifts to the centre".  |
| become a peer mentor                     |  |

#### F.5 Patient centred physical activity intervention in the Complex Medical Unit

The tables below contains the main topics and themes that emerged from the analysis of the CMU HCP interviews. A description of each theme is given with direct quotes taken from interviews to help demonstrate the findings and support the researcher's interpretation.

Table 9 Describes what worked well with regards to the SEM pilot in the CMU.

| What worked    | What worked well in the CMU pathway   |   |  |  |
|----------------|---|---|--|--|
| Topic          | Theme   | Quote(s)  | Interpretation/implication(s)  |  |
| Related to the | Being adaptable and   | "It was very quickly clear that whilst she was doing a  | Taking a trial and error approach to the pilot was beneficial. It  |  |
| intervention   | allowing the intervention to evolve over time                                 | lovely intervention with people, that was only a snapshot in time, and [the patients] were actually sitting in a very inactive ward environment. So the strand has evolved to try and address a little bit more the whole ward environment" (S6P03)   | enabled staff to learn from their experiences and develop ideas.  An implication of this for the evaluation team is that they had to react to unplanned changes in the implementation plan.  |  |
|                | iCAN tool is easy and quick to use and facilitates communication among staff  | "I certainly have found it nice to use, because it's quick. You don't have to freestyle; it's all there for you" (S6P03)  "an instant visual about somebody's current ability" (S6P03)  "It's found to be helpful, especially for communication between members of the team when they come to work" (S6P01) | Change was welcomed among staff on the ward but it had to be easy to embed within existing systems and quick to use/refer to on the job. The iCAN tool was praised for facilitating communication between staff, especially between staff on different shifts. It's primary purpose was to document the level of mobility/physical ability of each patient on the ward. There was some optimism that tools like this could help reduce 'pyjama paralysis' often experienced by patients in hospital. |  |
|                | Exercise booklets are self-explanatory and can be used by any member of staff | "can be distributed by any member of staff, they're fairly self-explanatory" (S6P03)  | Having access to easy-to-use resources was important for staff (for example, it could act as a prompt or source of information).   |  |
|                | Exercise booklets can be used by patients and their relatives                 | "[the patient's] nephew was there and he said oh yes he's been showing me the leaflet with the  | Having access to easy-to-use resources is important for patients and relatives too.  |  |

| What worke | What worked well in the CMU pathway                                |  |   |  |
|------------|--|--|---|--|
| Topic      | Theme  | Quote(s)   | Interpretation/implication(s)   |  |
|            |  | exercises and we've been doing some. So relatives are a big help." (S6P02)   |   |  |
|            | Response/reaction from patients who have engaged has been positive | "Most people that I've come across have been really pleased about doing it. They've enjoyed it. Sometimes they've been surprised about what they've managed and it's generally been well received by patients" (S6P03)  "Not all patients but some patients, I mean they're on the ward; they've not necessarily got much to entertain themselves, so actually having some exercises to do is good. But also people have ambitions to progress and get home. And so conversations that I've had, so I know I need to be able to do this to be able to home. So they can see that being more active helps towards that."  "I have seen a nurse doing exercises with a patient. The patient looked very involved and interested and taking it seriously as something good for his health, and as a positive really." (S6P01) | The initiative was received well by patients. Anecdotal evidence could be supported by more formal evaluation.  Important to frame the intervention to suit the individual goals of the patient i.e., using the exercises as an incentive to get home. This requires that staff have time to understand the individual goals of each patient. This was facilitated by motivational interviewing, but not all staff had received training yet. |  |
|            |  | more engaged, they talk to you; all that because of a personal touch." (S6P02)   |   |  |
|            | The resources are transferrable across pathways                    | "The resources are transferrable. The resources that we're developing will be on a website, and so they'll be downloadable and hopefully usable in all pathways. And already the exercise booklet that I'm using, people are picking up and saying oh actually I'd quite like to use it here and here and here, so definitely transferrable in that respect." (S6PO3)  | Suggests that the resources are transferrable to other contexts.  |  |

| What worked                                  | What worked well in the CMU pathway  |  |  |  |
|--|--|--|--|--|
| Topic  | Theme  | Quote(s)   | Interpretation/implication(s)  |  |
|  | Implementing this at the ward level means that patients can learn from each other  | "it's the knock-on effectit only takes one in the bay<br>and someone else will say tomorrow, well he's<br>walking, Alfie's walking to the toilet, I'd like to do<br>that." (S6P02)   | Implementation at the ward level encourages a change in culture or what's 'normal' for people on the CMU ward. A shift from the norm being 'pyjama paralysis' to being physically active.  |  |
| Related to the staff involved                | Having an ambitious PA champion based on the ward with dedicated time to give  | "what's made it easier, obviously having people having some dedicated time for this, and having some dedicated champions on the ward that are nurse based" (S6P03)   | Important that the champion is present on the ward and embedded within the system. The champion needs to be the right person with the right qualities. On the other hand, having a dedicated member of staff might take the onus off other ward staff to promote PA. |  |
|  | Staff who are keen to change the culture of the ward   | "[the ward manager] is from a rehab background,<br>and is very keen to change the culture on the ward<br>as well" (S6P03)  | Important to have enthusiastic and supportive staff to get behind the initiative. Important to find the staff members who are particularly 'bought into' it and keen.  |  |
|  | Shadowing and modelling among staff on the ward  | "having shadowed me for a little while and watched the way that I've interacted with people with the MI style, she can see the difference that that makes. And so she can see that that's quite a powerful tool." (S6P03)  "Hopefully the colleagues can role model each other" (S6P01)  | Important to identify staff members with the relevant skills and experience and use them as role models for other staff. Peermentoring was beneficial.   |  |
|  | Having staff with relevant past experience   | "I've got lots of experience working in rehab, a rehab unit so lots of work with patients doing exercise and encouraging more activity." (S6P03)   | Previous experience helped and less experienced staff could learn from those who have more experience.   |  |
| Related to the<br>setting / wider<br>culture | Support from senior<br>members of staff<br>Making changes to the<br>existing systems that are<br>already in place e.g., SKIN<br>assessment | "what's made it easier isthe support from the senior members of staff." (S6P03)  "[the nurses] use what they call a SKIN assessment, which is part of caring for people's skin integrity.  And part of that, the K is 'keep moving'. And they tend not to really populate that with anything. So I've asked, and that's been reinforced by the nurse manager, that perhaps [nurses] try to put a little more detail in there." (S6P03) | There needed to be supported from above, this was a whole system approach.  Change was welcomed but it had to be easy to embed within existing systems and quick to use.   |  |

| Topic | Theme   | Quote(s)  | Interpretation/implication(s)  |
|-------|---|---|--|
|       | Training opportunities (e.g., Motivational Interviewing training) | "I just felt that I wanted to see a little bit more thought about mobility and activity, but how could I fit it into something that they're already doing, rather than add something else on. And so it fits fairly comfortably in that formula that they already use" (S6P03)  "as part of the pilot a lot of people are doing, in OUHFT are doing motivational interviewing training, which Moving Medicine have just rolled out, so there are quite a few people on the ward are doing that training as well." (S6P03)  "she did some BMAT training, bedside mobility activity tool and so she showed me how to do that. And that was amazing and I really enjoyed doing that." (S6 P02) | Training needs were identified. It was important to allow time for staff training, not all staff had been trained and getting all staff trained would take a long time. The wider system needs to be supportive - allowing staff time to go on training courses. |

## Table 10 Describes the challenges experienced with regards to the SEM pilot in the CMU.

| What were the challenges for the CMU pathway |  |  |   |
|--|--|--|---|
| Topic  | Theme  | Quote(s)   | Interpretation/implication(s)   |
| Related to the intervention                  | The original iCAN tool did not work to greatest effect | "apart from the physios who were good at putting in methods of transfer, my feeling was that it was a bit of blank page and people weren't really sure how to use itso we've changed it" (S6P03) | Taking a trial and error approach to the pilot was beneficial. The staff recognised that the original iCAN tool was not working to its full potential. The open-text boxes were not being used by staff and some staff were concerned about the patients' privacy. The new iCAN tool was more directive i.e., staff used tick boxes to state what the patient could do e.g., I can dress myself / walk to the toilet. |
|  | The initiative (exercise/PA) is not                    | "No, not with all patients. So, even in this week I've come across<br>two patients, one of whom, there's obviously on the medical<br>ward a lot of very elderly patients, some with quite severe | An individualised approach was needed to meet the needs of each patient on the ward. One respondent explained how PA and mobilisation is not a priority for many patients when they   |

| What were the                 | What were the challenges for the CMU pathway   |  |  |  |
|-------------------------------|--|--|--|--|
| Topic                         | Theme  | Quote(s)   | Interpretation/implication(s)  |  |
|                               | appropriate or a priority for all patients   | cognitive issues, so for a patient in that situation I couldn't even get him to respond to this name, let alone copy me, you know, go through any exercises or anything with him" (S6P03)  "When I think about priorities that is not the reason why the patient is admitted into hospital. So we tend more to treat the reason why the patient is in hospitalSo then a few days down the line that we will think about mobilising the patient more actively." (S6P01) | first get admitted into hospital; they need to receive treatment first and it might a number of days before they enter the CMU ward, at which point the priority is to treat illnesses. Nevertheless, mobilisation is valued as a means of preventing further illness.                       |  |
|                               |  | "So being in an elderly care ward I think that it's very important that we work across into patients own needs. Instead of having a generic approach." (S6P01)   |  |  |
|                               | Unintended consequences  | "the concern that what you introduce is at risk of causing unintended consequences, so for example of course falls, and that's always a big issue in the hospital environment." (S6P03)  | Risk assessment was important to help minimise risk e.g., 'bedside mobility assessment tool'. HCPs are typically risk averse and might avoid encouraging PA for fear of causing further harm.  |  |
| Related to the staff involved | Variability among staff in<br>the level of detail /<br>attention given to<br>mobility and PA | "physios will write about mobility, will write very clearly what [the patients] use, you know, if they walk unassisted and over what distance. Nurses tend not to mention particularly mobility, either how they've done it or what they've done" (S6P03)  | Some staff were more accustomed to taking PA into consideration (e.g., physios), others had to change the way they worked/documented patient notes (e.g. nurses). Different staff may have different training needs. A needs assessment for each member of staff may be beneficial.          |  |
|                               | Staff shortages and work load  | "the staff is very busy and shortage of staff is normal across the NHS" (S6P01)  | PA and mobilisation becomes less of a priority when wards are short-staffed. This will presumably have negative implications for staff availability for training.  |  |
|                               | Finding the right person to be champion  | "it's not necessarily the grade of person, it's the person, and that's difficult. That makes it difficult, because you can't say oh I need a band 7 this or a band 5 this or a healthcare assistant that, it's the person. And how they interact with other people, and how ambitious they are, and willing to run with it, you know." (S6P03)   | Finding the right person to be PA champion is difficult. The person needs to have the right personal qualities and be embedded within the system already i.e., not parachuted in. One respondent mentioned the importance of the champion already having rapport with the staff on the ward. |  |

| What were the challenges for the CMU pathway |  |  |   |
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| Topic  | Theme  | Quote(s)   | Interpretation/implication(s)   |
|  |  | "having somebody embedded within the team with that ideal, and wanting to do it I think is essential" (S6PO3)  |   |
| Relating to the setting / wider culture      | Policy issues and insurance implications   | "we haven't had an update about the insurance of us [nurses] assessing people, because it's a physio role. So that's a bit debatable." (S6P02)   | Asking nurses to take on some physiotherapy roles has implications for insurance that need to be carefully considered.  |
|  | Difficult to measure impact of the intervention when there's other contributing factors in the wider environment | "it's not necessarily mobility that holds people back in that respect [time to discharge]. So they might be waiting for packages of care, or they might be moving on to other community hospitals [time to discharge] is really difficult one to measure, because there's so many variables and so many things that impact on that." (S6P03)  "if you're spending half an hour, 20 minutes, half an hour with somebody that otherwise would be sitting looking at the walls, then whatever intervention is going to lift mood." (S6P03)  | The impact of the PA itself is difficult to measure. If time to discharge is a key outcome then there are a number of other factors that influence when a patient get discharged. Implementation teams needs to decide on the key indicators against which to measure success and these might not be clinical outcomes. Patients may benefit from having the contact-time and care from HCPs that comes with the exercises and it's difficult to disentangle the effects. |
|  | Changing the whole culture and ingrained practices   | "I'm hoping that the culture on the ward becomes more of this sort of rehab approach" (S6P03)  "I've been working on with a colleague has been put into the manual handling policy, new manual handling policy" (S6P03)  "the other barrier is then people's ingrained attitude. So there are some, so like I say we've got lots of support from the new nurse manager who's very proactive about improving activity on the ward. But then there are some nurses who just historically will nurse people in bed because they perceive that to make their life easier." (S6P03) | It is likely to take time and persistence to bring about change to the whole ward culture. This may require training, change to policies and the way that staff work. These are not simple infrastructure changes, but cultural changes to the work place and work practices.   |
|  |  | "we need to of course train the staff, empower them and make them competent to do that." (S6P01)   |   |