

CODE-BOOK: CLINICIANS INTERVIEW DATA

PRIMARY THEME: CURRENT PRACTICE

Sub-theme	Description	Quotations	Participant
Measures Used	References relating to how data is currently collected: what metric it is and how it is measured.	<i>Generally, I would manually take objective measures, traditional measures like muscle strength, range of motion, and then some subjective ones as well, opinion based on movement quality.</i>	Physiotherapist
		<i>We use the goniometer to measure how much flexibility has come into their hip or knee. That's the only indication we can give them by using something as a tool. Otherwise we eyeball and give a rough estimate.</i>	Orthopaedic Assistant
		<i>To give an example, the lady that I saw yesterday she was 3 weeks and 6 days after her knee replacement and had 130 degree knee bend. Whereas I know from doing this job and from seeing a lady earlier on in the week and only has 70 degree knee bend. You can see with the lady who has 130 knee bend she doesn't realise how well she is doing, but she thinks she should be further along.</i>	Clinical Nurse Specialist
		<i>Measuring the range with a goniometer but there's a lot of intra reliability issues with it you know, as to whether you're specifically getting the right measure from one to the next so I wouldn't say how valid it is.</i>	Physiotherapist
		<i>Say for a knee replacement they have their CPMs so once they start to reach towards their 90 degrees.</i>	Staff Nurse
		<i>I would start out with the swelling, if there's any swelling present around the knee or the hip.</i>	Orthopaedic Assistant
		<i>Any lag with some of their movements they were doing, I would tell them you were lagging yesterday but today you're much better than what you were yesterday.</i>	Orthopaedic Assistant
		<i>We would look for breaking down different parts of their gait, the distance they've walked, the time they would take to do the distance which would give the speed as well, the stepping pattern, the step length.</i>	Physiotherapist

		<i>Some patients would use the tick box in the booklet, like a diary, a list of the exercises and dates and times that they can tick it off.</i>	Physiotherapist
		<i>Using scales like pain scales and functionality scales.</i>	Physiotherapist
		<i>Decreasing pain reports, or decreasing reports about their pain experience, and decreasing levels of analgesia would be the two outcome measures.</i>	Clinical Nurse Specialist
		<i>Their pain is another thing we would use as a measure as well to I guess progress, you know often the reason people have had an ortho procedure is because of pain so that's an important thing for the patient to show that they're improving and that's something we would definitely take as an objective measure.</i>	Physiotherapist
		<i>We're probably not as, like with physio they're looking at ROM and they're commenting specifically on joint range, we're more looking at it from a functional perspective, are they able to you know perform a task in a safe manner whilst adhering to the guidelines that are set out past their surgery.</i>	Occupational Therapist
		<i>Returning to function is another important measure, we would check pre-during and post-op, especially pre and post from a function point of view. Are they back doing ADLs, Sport, working. So those type of things we would check. Sometimes it's just asking through subjective questions or others would be questionnaires such as the WOMAC to find out functionally how that is improving.</i>	Physiotherapist
		<i>How many can you achieve before you fatigue / movement quality is poor. That's gold.</i>	Physiotherapist
		<i>...but it would be nice to have an objective measure of movement quality to feedback to the patients.</i>	Physiotherapist
Current Issues	References relating to the issues with the current measures that are captured, and the comparison of subjective to objective data.	<i>Objective markers are few and far between and we're still reliant on the old clinical measures like range of motion, muscle strength - which if you're testing on an Oxford scale it's a very subjective thing.</i>	Physiotherapist
		<i>I suppose it's a lot of observation and it is quite subjective in a lot of other ways like stair mobility.</i>	Occupational Therapist
		<i>Objectively again you'd ask their pain scales, I'll ask them to keep an exercise diary, what duration they would walk, how many times they exercises a day, and again keep a record of it, as if they don't it's just a subjective response.</i>	Physiotherapist

		<i>Monitoring them you're really just looking at visually just using your visual aids yourself so gauging yourself their progression.</i>	Physiotherapist
		<i>But it is more, kind of, you don't have anything to, how do I say it, you don't have machines. So it is really a more kind of ongoing assessment.</i>	Staff Nurse
Feedback & Monitoring	References relating to how feedback and monitoring is conducted/provided in current practice.	<i>I guess just verbal feedback is our only option... but when they go home we're not giving them any feedback 'til they come back to the clinic.</i>	Physiotherapist
		<i>Verbal feedback or sometimes written feedback so you're adapting things to their ability... most of the patients in the early post-op phase need it to be clearly documented in front of them to make a change otherwise they forget.</i>	Physiotherapist
		<i>Purely conversation.</i>	Clinical Nurse Specialist
		<i>Some patients themselves have said when they contacted me that they don't know what stage they should be at, even though we provide them with the info at pre assessment beforehand, even though we go through the information when they're here in the hospital.</i>	Clinical Nurse Specialist
		<i>They can call in if they have a problem but between the visits of the teams that are going out once a day over the course of the first week, no they have to get on with it themselves, they don't have anything to work off except what they've been educated to do.</i>	Physiotherapist
		<i>You're not watching them and they're like oh yeah I did my exercises and you just have to go by that they did it.</i>	Staff Nurse

PRIMARY THEME: WEARABLES

Sub-theme	Description	Quotations	Participant
Current Use & Awareness	References relating to participant knowledge of types of wearable devices both in private or professional context.	<i>A mobile phone that measures your distance, and measures calories and distance walked and you can go back and check and see exactly what you've done for a day.</i>	Orthopaedic Assistant
		<i>I've used a pedometer here at work when they were trying to get people to take more steps, I have used a HR monitor when training.</i>	Physiotherapist
		<i>Yes, erm map my run... . I have another mobility app and its more for tracking distance.</i>	Occupational Therapist
		<i>I've used the sensors, the HR monitor sensors and things like that for GAA training in the past and that was more to do specific testing.</i>	Physiotherapist
		<i>I've used the watch technology for some swim training and some gym training when I was training for specific things.</i>	Physiotherapist
		<i>I actually haven't used any wearable technology so there's not much I can tell you to be honest.</i>	Orthopaedic Assistant
		<i>I haven't used any... I know you can get all sorts of apps that'll measure all sorts of objective measurements of sports performance.</i>	Physiotherapist
		<i>A lot of my patients at the moment all have fitbits for measurements of how many steps do they take per day, a lot of the smartphones obviously have apps as well that record how many calories and steps they're taking, what distance they walked, run, cycle.</i>	Physiotherapist
Motivational	References relating to the use of wearable devices discussed in the current use and awareness sub-theme offering a motivational aspect.	<i>It gives you a sense of achievement. At the end of each session say I've gone for a nice long walk and I've made sure it is uphill/downhill all that stuff you know. If I look at it and say well I've walked 10km I think I'm quite happy with that for a day, you're delighted with yourself so you do get a sense of accomplishment from it.</i>	Orthopaedic Assistant
		<i>The 10k steps definitely does encourage people to be more active, they're more conscious, they're more objective.</i>	Physiotherapist
		<i>I just think for the whole kinda like tracking your steps, my friend was showing me hers and it tells you what you've done and what you have to do and you can compete with other people. I think they're quite motivating.</i>	Staff Nurse

		<i>I like it from a motivational point of view and you have an excel spreadsheet and you can compare averages like this time to a year ago.</i>	Physiotherapist
		<i>And you kind of got little rewards or prompts from it you know, congratulations you've done 5 days in a row and I liked that.</i>	Occupational Therapist
Track Data	References relating to the use of wearable devices discussed in the current use and awareness sub-theme providing the opportunity to track data.	<i>Well I suppose I would predominantly have used it for measuring distance, so if I was tracking myself or setting myself a goal for exercise in terms of time and distance, erm, it would have been, it's a useful thing for a tracker.</i>	Occupational Therapist
		<i>You give a patient an exercise and the subjective they may report one thing but at least with the objective measurements you have something in front of you that they walked 5k in a certain time or they did do a certain amount of steps.</i>	Physiotherapist
		<i>I think they can be used to encourage people to give feedback, they can see their improvements and if people are into tech they can actually track their different training programmes and log, you can see how you're improving and just from peoples feedback to me some people really like that.</i>	Orthopaedic Assistant
		<i>I did look at the data but I probably haven't uploaded the data anywhere or done anything more with it than literally monitor anything.</i>	Clinical Nurse Specialist
Negatives	References relating to perceived challenges and drawbacks of the use of wearable devices discussed in the current use and awareness sub-theme.	<i>How can it differentiate between height and weight and I don't know if that is always taken into account with some of these technologies.</i>	Clinical Nurse Specialist
		<i>I know there are newer and updated versions of fitbits and other wearables coming out that have HR and calories burnt but again how specific is that to the patient compared to a generalised population.</i>	Physiotherapist
		<i>My opinion is I personally would find it irritating. Why? I hate email reminders, and uninvited contact from companies. For me a fitbit is impractical as we have a bare wrist policy so most of my life it has no relevance to me. But the main block would be uninvited contact.</i>	Clinical Nurse Specialist
		<i>It's the remote setting of goals, or the setting of goals that you then fail. So your sense of failure overrides your sense of success. I think there's a possibility of the two things happening and I think for me would detract from the benefit of wearing it. If I felt I wasn't meeting goals.</i>	Clinical Nurse Specialist

		<i>There is nearly an obsession that they have to achieve 10k steps when I have seen security guards just marching on the spot rather than just walking.</i>	Physiotherapist
		<i>I think you can get sick of having that many options available to you. And I think that there's so much choice out there and you never know what one is going to work for you until you have downloaded a few and seen what works best for you and your lifestyle and what you want to use it for.</i>	Staff Nurse
		<i>I don't particularly like being on technology overly so I don't necessarily want to have to go after my run onto my laptop to track my run. I've been involved in sport at a high level for a long time so I have a good understanding myself of how to push myself so I don't need that feedback but I can see how it is really good for people who wouldn't have that background.</i>	Physiotherapist

PRIMARY THEME: CONNECTED HEALTH IN ORTHOPAEDICS

Sub-theme	Description	Quotations	Participant
Opportunity	References relating to participants views on where technology could improve patient care / clinical workflow.	<i>I think there's definitely a place for it because it's much more in peoples life than ever. Lots of people like apps now and they like to tag into something and if it can give more specific individual feedback then there's definitely a role for it to be a part of their progression, especially resulting in something that will rehab for months.</i>	Physiotherapist
		<i>I suppose if they had an app and stuff on them, do you know they could like, everyone kinda YouTube's stuff and they're not accurate. Everyone's saying oh well that looks like that's what I'm doing but you don't really know. But if you did have the fitbit you could say right well I actually have done it and you just feel a bit more secure I suppose.</i>	Staff Nurse
		<i>A lot of GP surgeries are using remote technology with their patients, even medical records are being shared with patients that they then take into their hospital. I mean there's huge growth in that.</i>	Clinical Nurse Specialist
		<i>Erm I think I've seen a lot of people and proposals in relation to an introduction of kind of these wearables into the health and not just the fitness sector and to do with health and health monitoring so I think there is definitely a huge role to play.</i>	Occupational Therapist
		<i>Well I suppose orthopaedic rehab because it's so prescriptive and it's so specific, and I know it had to be personalised and individualised but the exercises are pretty much the exercises you're going to do after a knee surgery or hip surgery so I mean in a way I think its I suppose there aren't as many variables with it.</i>	Physiotherapist
		<i>I'm a bit of a control freak and I would love if I was a patient if I could have something that easily helped me track my health in terms of my BP, glucose levels, HR, O2 levels. So it took a more holistic view, something that I could track.</i>	Occupational Therapist
		<i>The last job I had in spinal wards where if there was something there, if there's people there and they could see progress on a screen rather than just being told, you're doing great, you're doing fantastic. I'm sure that grinds on people a bit you know. Definitely in the orthopaedic ward, if there's a way of saying this is where you were at the start, now you're here, now you're here I'm sure that would be brilliant.</i>	Orthopaedic Assistant

		<i>I think it's the future of physiotherapy probably, what we tried to introduce was emailing, there's always going to be some issues with emailing. Not just pictures and descriptions but videos of how an exercise should be performed.</i>	Physiotherapist
Potential Features	References relating to desirable features of future technology enabled interventions in the orthopaedic setting.	<i>You can always video call them and see how are you getting on, that way you don't have to physically go to the house to see how they're getting on. They can just show you the exercise.</i>	Orthopaedic Assistant
		<i>Unless you had the smartphone or something you can communicate with the patient through that, obviously for example you have facetime</i>	Staff Nurse
		<i>Even something like a fitbit that showed a graph that you can go and check if they've actually done their exercise/if they've achieved their targets. It's very easy to say oh yeah you look like you're doing it right until you kinda see.</i>	Staff Nurse
		<i>I think it would give the patient an opportunity to give a much more personal record of their experience. And, you know, also a central monitoring or central axis, I mean if you had a patient tablet in a room and a nurse had a smartphone or something in her pocket. That she could check into, and say ok patient in 302 is reporting pain in the last hour, I haven't been in there ill check. Very simple things whereas patients don't always tell you?</i>	Clinical Nurse Specialist
		<i>Even from an older persons discharging to home perspective from family to be able to see how their health is doing its not this subjective, oh mum started feeling unwell, I think it was 3 or 4 days ago but if something even, just temperatures, something very basic and something very objective that you could measure over time that'd be really helpful.</i>	Occupational Therapist
		<i>How much bend they have on their knee without being strapped to the machine (CPM). Maybe that'd be something in the future that could be even better again, something along those lines.</i>	Orthopaedic Assistant
		<i>I love the idea of real-time feedback, the idea something can tell you you're doing something wrong immediately and help you correct it. I think some patients having that insight and that awareness and that something to prompt you on the spot because that's what we would sometimes find is that people would get into behaviours or habits of doing things. I'm trying to think about the transition from</i>	Occupational Therapist

		<i>hospital to home, a lot of the time they go home and it's as if we're starting from scratch with them.</i>	
		<i>When they come to pre-ops rather than handing them loads of sheets that they're given that information via email or an app so once they come in they download the app and get all that information and say refer them to that during it.</i>	Clinical Nurse Specialist
Challenges	References relating to the potential challenges in design and development of technology based systems in orthopaedics.	<i>Getting the patient to buy in to it is the number one challenge, from everything. A piece of tech that I've used with athletes would be monitoring of their load fitting in their activity duration during their training session to build up their profile of how much training they've done – getting them to use it is a problem but when they do use it its invaluable.</i>	Physiotherapist
		<i>I think there are an awful lot of opportunities there but a lot of it comes down to patient compliance.</i>	Clinical Nurse Specialist
		<i>The more work they have to do the less reliable it is.</i>	Physiotherapist
		<i>If you expect the patient to go back and log onto a computer to record data you're not going to get it.</i>	Physiotherapist
		<i>Time... in an outpatient session you've got 30 mins to get them in, assessed, treated, progressed, and then how relative is it going to be taking up your time to look up their adherence levels etc. because if they come in and you see that they've improved and their quality of movement has improved you can be fairly confident they've been adherent to their exercises.</i>	Physiotherapist
		<i>If you don't have a good understanding of the app or the technology itself, it can be quite difficult for someone to use it. For example, if it is someone quite elderly, they wouldn't be as tech savvy as someone in their teens or early twenties. So it's the whole aspect of getting to know about the app or technology before they start using it. That would be the only difficulty there.</i>	Orthopaedic Assistant
		<i>I suppose how user friendly the app and I suppose that can be a weakness and a strength for patients, depending on the patient age population.</i>	Clinical Nurse Specialist
		<i>And the big problem is if they cannot use it then it is pointless</i>	Physiotherapist

	<i>I mean if the interface is difficult or if something, errors keep occurring, I think the more simple a thing is and the more intuitive it is the easier it will be from an uptake and an ongoing compliance issue.</i>	Occupational Therapist
	<i>The technology actually working, how many times you know, the lack of WIFI, computer crashing. I suppose they would be the huge elements.</i>	Clinical Nurse Specialist
	<i>The ability to pick up on the false in particular because obviously there's going to be a limit to what the technology can do so it needs to be factored towards a specific goal so whatever that is.</i>	Physiotherapist
	<i>If you look at the elderly population that are primarily getting joint replacements are a lot of them au fait with, some of them would be but there would be presumably a large percentage who aren't au fait with iPad, iPhone and similar technologies.</i>	Physiotherapist
	<i>I suppose, a lot of people have the technology, that's not as much a barrier. It's so accessible now on smartphones and so many people have smartphones I don't really see that as a barrier. Nor do I see the whole age profile of the patients as a barrier because I'm seeing 90 year olds using skype and Facebook and I think that barrier is reducing.</i>	Occupational Therapist
	<i>Yes of course, without being rude and I would put myself in the same bracket, not being ageist. But certain people of an age are fantastic with technology, you know I know we have the silver surfers and that's what they're being christened, but I see a lot in the hospital where they're skyping families – telling them they're feeling well.</i>	Orthopaedic Assistant
	<i>I think the barriers to technology in health are coming down every day. I see such changes for the older population on the ward now.</i>	Occupational Therapist
	<i>One would have said data protection, that's always going to be your main challenge.</i>	Clinical Nurse Specialist
	<i>So I suppose how can the app be, you know, I know this seems like a strange one, but how many times have we heard of people being hacked, and the technology being there and being stolen and stuff like that and I think unfortunately that's getting more and more common. I don't know if that's something anybody will think of when it comes to this kind of app for healthcare for better patients. But I do think that's something the potential is there for.</i>	Clinical Nurse Specialist

		<p><i>So I would think that with technology the person that has to be driving the connection is the patient.</i></p>	<p>Clinical Nurse Specialist</p>
		<p><i>So you need to overcome that barrier with the patient that they might perceive it as something that you are handing over responsibility when in fact what you're trying to do is get a better understanding to deepen a relationship. You want to use it in a way that enhances the trusting element of the patient-HCP relationship. That has to be the fundamental process. You have to utilise it in a way that actually increases that relationship as opposed to detracts from it.</i></p>	<p>Clinical Nurse Specialist</p>
		<p><i>Just that it can't replace actually somebody being there looking at them. Even though you can have two people looking at someone doing an exercise a highly trained physio is going to see what needs to be tweaked in your technique with something. It's very easy to do an exercise that actually is going to ramp up your pain and you can just change it slightly and often you're not, and I don't think tech can replace that part of it but if it's going to be used to iron out the simpler things, but the higher things you need an experienced eye to see I don't necessarily know how you can replace that.</i></p>	<p>Physiotherapist</p>

PRIMARY THEME: PERCEIVED IMPACT OF EXEMPLAR SYSTEM

Sub-theme	Description	Quotations	Participant
Improve Outcome	References relating to a perceived change improvement in clinical outcome with the use of the demonstrated system.	<i>Very useful, I think it'll improve the quality of the patients exercise.</i>	Physiotherapist
		<i>It'll improve the quality of the patients rehab. So I think they will be more likely to follow more structured programmes when they have visual feedback to do it.</i>	Physiotherapist
		<i>There are times when you could be doing the exercise but you wouldn't know if you were doing it right or wrong so to be told that you are doing the exercises incorrectly it makes you go back and do them properly again that way you know you're getting the best out of it.</i>	Orthopaedic Assistant
		<i>I think they'd rehab quicker and be more confident in their rehab, which is the best thing.</i>	Staff Nurse
		<i>I think you're going to do the same thing, but at a better standard and a better quality.</i>	Physiotherapist
Track Data	References relating to the use of data to monitor patients with the use of the demonstrated system.	<i>Then at least you can track as well to see if they're actually using it at all. Because if they're not using it then they're likely not doing anything.</i>	Physiotherapist
		<i>One of my favourite things about it is that you can score the difficulty, if somebody is scoring 555 then they're finding it too difficult but if they're scoring 111 you can progress them on very quickly.</i>	Physiotherapist
		<i>I like the mood as well in terms of from a depression point of view, they're so much depression out there, these people may act knowledge it and this could pick up a few mental health issues as well.</i>	Physiotherapist
		<i>It gathers up data and tells you whether the patients are doing the exercises or not. That way if they say they have done it you can say no, you didn't do the exercise I've got the information here so yes its quite good to go back to.</i>	Staff Nurse
		<i>The data is automatically taken and you're not physically putting the data into a computer, all you're doing is log into the app and just go onto the page you want to see and put it all together. Instead of spending hours on a computer putting the data in so yeah it'll be a big hit for sure.</i>	Orthopaedic Assistant

		<i>It would change maybe the clinical practice, because if you were noticing a certain surgeons patients experienced more pain, or people discharged over the weekend have higher pain levels, you know then what you're doing is establishing patterns that allow you to intervene.</i>	Clinical Nurse Specialist
		<i>You're always going to see what you see, but this is something where you can record data and it doesn't lie.</i>	Orthopaedic Assistant
		<i>I'm very impressed by the spreadsheet at the end that tells you if you've done it correctly or incorrectly, I'm impressed by the graphs and saying the amount of reps performed and if you've done your dosage for the day or over a period.</i>	Physiotherapist
Motivation & Support	References relating to the use of the demonstrated system to provide motivation or support to patients.	<i>I think it will enhance the patient confidence in their recovery... it's reassuring to know you're on track.</i>	Clinical Nurse Specialist
		<i>There are times when you could be doing the exercise but you wouldn't know if you were doing it right or wrong so to be told that you are doing the exercises incorrectly it makes you go back and do them properly again that way you know you're getting the best out of it.</i>	Orthopaedic Assistant
		<i>The feedback from the screen, makes you think how am I going to complete these exercises correctly you know.</i>	Clinical Nurse Specialist
		<i>From their perspective they're getting feedback immediately that they're doing something wrong and there's a prompt to give them the idea of maybe what they're doing and how they could perform the exercise better which is great.</i>	Occupational Therapist
		<i>Yeah well its correcting you and telling you that you're not doing it properly or that you're doing it perfectly and its nice for people to feel like they have sort of backup when they go home.</i>	Staff Nurse
		<i>I think it will be a fantastic impact on the patient it really would. I can't overemphasise the amount of times that people, when they see themselves progressing they go much further again and it shoots along. They really get a sense of wellbeing, accomplishment all that sort of stuff and they know I'm getting there, I can see I'm getting there. I can visibly see and I can see the data as well you know.</i>	Orthopaedic Assistant
Healthcare Efficiency	References relating to the use of the	<i>... you're hopefully not going to need MUA's (Manipulation under anaesthetic) and that kind of thing because you're doing it right from the beginning.</i>	Staff Nurse

	demonstrated system to improve working practices and healthcare efficiency.	<i>As a patient, I would imagine that if I was doing my exercises correctly, I would need less appointment time with a physiotherapist... If I wasn't doing the exercises correctly, the physiotherapist might call me to go through how to do it, but if I'm doing my exercises correctly, if I'm reaching the goals I need to and the activity levels that I need to, why do I need to come in and see a physio?</i>	Clinical Nurse Specialist
		<i>It would even reduce the phone calls in saying I don't know if I'm doing this right or I think I'm doing something wrong because it's there in front of you.</i>	Staff Nurse
		<i>As a patient I would imagine that if I was doing my exercises correctly, I would need less appointment time with a physiotherapist. Particularly if I'm paying for it.</i>	Clinical Nurse Specialist
		<i>It would save them from travelling out of the house, a lot of patients would struggle to get a lift to the hospital and trying to manage around people's workloads to get lifts.</i>	Orthopaedic Assistant
Challenges	References relating to the perceived challenges and risks associated with the use of the demonstrated system.	<i>As long as I follow it... I wouldn't go and see the physio again.</i>	Orthopaedic Assistant
		<i>It's not going to take the place of the therapist you know, but it just serves to really hammer home the message you're trying to get across to the patient.</i>	Physiotherapist
		<i>The worry that it won't be giving you the right information and then it's going to skew your thought process and that of others because you can only report on what you're being given.</i>	Physiotherapist
		<i>Well overall I suppose if you thought you were doing great and then this pops up you'd kind of get a bit of an oh I've been doing it wrong and you might be put off and you might be like I'm not using that again, but I think that'd be very dramatic.</i>	Staff Nurse
		<i>The worry that it won't be giving you the right information and then it's going to skew your thought process and that of others because you can only report on what you're being given.</i>	Physiotherapist
		<i>There was some issues when I was using it that it wasn't picking up all my reps correctly. So that is an issue. If I was using that at home it would frustrate me if I had done 15 and it said I had done 10.</i>	Physiotherapist

	<i>It's quite sensitive in that regard but it's better to have it too sensitive than not. The only thing is if it constantly tells the patient the exercise is wrong are they going to say I can't do that exercise right anyway so I'm not doing it and skipping it.</i>	Physiotherapist
	<i>How it is at the moment it's not picking up the exercises correctly.</i>	Clinical Nurse Specialist
	<i>My issue would be if we use this app after two weeks should we not be progressing their exercises so you're no longer going to be performing those exercises.</i>	Physiotherapist
	<i>The only thing is some of the nuances in rehab, it's obviously not going to pick up on. Such as Still 3-4/52 post TKR. Still absent in last 10 of knee extension, so they're going to look like they're doing the exercise well, this is going to tell you they're doing the reps of a knee bend well – what's the quality of the knee bend like?</i>	Physiotherapist
	<i>You'll always modify the generic programme to a certain person who lacks flexion v extension, strength v ROM.</i>	Physiotherapist
	<i>Some people would see that as a tool for assisting self-management, other people no matter how much education or technology you provide, will still see their recovery as incumbent on the healthcare professional looking after them.</i>	Clinical Nurse Specialist
	<i>I think the patients that come in with a non-compliant element already, I don't know if you're ever going to change their attitudes and beliefs no matter how much information you provide or give them, or how much resource you provide and give them. I just think there may some way of change in them but I don't know if this app or anything else will be it. I don't know if there is technology out there that is designed that may help them, but again that's unknown.</i>	Staff Nurse
	<i>I guess it depends who is responsible for their care... I wouldn't want alerts about patients who went home a week ago but are in 10/10 pain. I want to educate that patient and put that responsibility on them, the more we give patients the responsibility the better. By doing that alert it makes the patient more passive and we want to encourage the patient to take responsibility, educate them on taking steps like icing and taking pain medication, and then if it still doesn't settle down, then the patient needs to call. I think if we put the responsibility onto us we're leading down a dangerous path.</i>	Physiotherapist

