

Supplementary file 15: Themes, sub-themes, and example quotes

Themes	Sub themes	Feedback
1. Positive feedback on the decision aid	1.1. Positive feedback on the content	Adolescents:
		Female, 15-17 yrs old - "I like the page and it makes sense to me everything that it's saying."
		Adults:
		Female, 18-20 yrs old - "So I guess informing people that have torn ACL and the benefits and limitations of each graph. And what they do would be good."
		Male, 21-30 yrs old - "I wish I had something like this for either of my ACL ruptures as following the first one I may have tried not having surgery as I was already back running."
		Male, 31-40 yrs old - "Giving them more information on what rehab they could be doing in the meantime, might lead to better outcomes until the surgery, there was for me, there was nothing in between in terms of exercise or rehab or anything. Yeah, and I didn't even know that, you know, that would have been something I should have been doing."
		Male, 21-30 yrs old - "Like it's giving you the clear picture but also showing you the downside simultaneously."
		Male, 21-30 yrs old - "Yeah, I like those, the data points there. That's pretty good. I like it as it shows you how many people out of 100. Nice. I also liked on the other page, you had the little infographic with the people bicolored."
		Parents:
		Female, 41-50 yrs old - "I like all the information, the statistics are really good."
		Female, 41-50 yrs old - "I think that's perfect." and "I think it's really good."
		Health Professionals:
		OS, Male, 31-40 yrs old - "Well thought out, nice and balanced."
PT, Male, 31-40 yrs old - "I like this. I like the summary. I think it's a good, I think is where you get a lot of information, which is really, really nice."		

	1.2. Positive feedback on design	<p>Adolescents:</p> <p>Female, 15-17 yrs old - "I think it will be really valuable. It doesn't look boring as I get bored really quickly with medical brochures but this is engaging."</p> <p>Female, 15-17 yrs old - "I like reading it and I would go highlight it. I also like the cute little numbers and like percentage size. So I feel like this is like really good. So this is engaging."</p> <p>Female, 15-17 yrs old - "I think it's really good. I like the pictures"</p> <p>Adults:</p> <p>Male, 21-30 yrs old - "I like that flowchart, it's pretty straight forward."</p> <p>Female, 21-30 yrs old - "I think the pictures are good."</p> <p>Female, 21-30 yrs old - "I do like that it kind of has a timeline shows you the differences and similarities and each timeline."</p> <p>Female, 21-30 yrs old - "I do like that they are like side by side. It's easy to look from one to the other."</p> <p>Female, 21-30 yrs old - "I think that I don't think that's too long or too short. I think it gives enough information without necessarily overloading someone with it. It gives you the information you need to know without being overwhelming."</p> <p>Parents:</p> <p>Female, 41-50 yrs old - "I love the little pictures. Great. Easy to read. Logical. Succinct."</p> <p>Female, 41-50 yrs old - "I like it. I like how the benefits and harms are highlighted. And the numbers really pop out."</p> <p>Female, 41-50 yrs old - "Remember, choose what is best for your situation. Think of whole-body health. See family, friends and health professionals for support and stay positive. Love that."</p> <p>Health professionals:</p> <p>OS, Male, 31-40 yrs old - "That's really good, the pictures there are great and it's really good to compare."</p>
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		OS, Male, 31-40 yrs old - "It's really nicely displayed. So it's very easy to understand."
	1.3. Positive feedback on usability	Adults:
		Female, 21-30 yrs old - "I think this is probably something that would have been nice to have."
		Male, 31-40 yrs old - "It's easy to follow."
		Parents:
		Female, 41-50 yrs old - "Easy to follow."
		Female, 41-50 yrs old - "I like to timeframe because it sort of shows a comparison, especially what I've been reading a lot. So it kind of brings it together. So I can see, I like how it's broken down. Because most of the time when you go to the doctor, they don't discuss anything into this, this much detail"
		Female, 41-50 yrs old - "I actually had had a study in my hand and he didn't even look at it."
	Health professionals:	PT, Female, 41-50 yrs old - "I really liked the first page, I think it makes it really clear that there are two options, it makes it clear that you know that if you try exercise, you still got the option for surgery, I think that's good. And that if you have successful rehab from either of them, then they return to sport or other activities. So I really liked that first page and I like the questions underneath."
2. Negative feedback on the decision aid	2.1. Negative feedback on the content	Adolescents:
		Male, 15-17 yrs old - "The pictures. I mean, it might make it look a little nicer, but it's not really giving you information. I think take the pictures away."
		Adults:
		Male, 21-30 yrs old - "Formatting could just be a no having pictures on both sides and having the legend somewhere else, but I think that was overkill with pictures."
		Health Professionals:
		OS, Male, 31-40 yrs old - "This language is too academic. Provide some more simple options."

		<p>PT, Male, 31-40 yrs old - "Could have it more infographic style."</p> <p>OS, Male, 51-60 yrs old - "What you're doing is intrinsically incorrect."</p>
3. Outline how the decision aid should be used	3.1. Improve clarity on the target population	Children and adolescents:
		Female, 15-17 yrs old - "It makes sense to me."
		Parents:
		Female, 41-50 yrs old - "Have you thought about doing separate ones of these for boys versus girls being those girls have such a higher reinjury rate?"
		Female, 41-50 yrs old - "Females may be at a greater risk of re injury or something like along those lines."
	Health Professionals:	
	<p>PT, Female, 21-30 yrs old - "Because the well, if yeah, if this depends where you're putting it, but I assume that if you were 19, and you had just done your ACL, then you'd want some data on that as well, because you wouldn't really fit into the other category. I feel like this is a bit more like it gets into like function and, and stuff. And more into like complications, which is a bit more of a adult topic."</p> <p>PT, Male, 31-40 yrs old - "So I think, obviously, there are patients that are going to do better with a reconstruction, particularly if they have a knee that for them feels unstable or is objectively unstable, either passively with bedside ligament testing, or in weight bearing their knee gives up or has given way."</p> <p>PT, Male, 41-50 yrs old - "I believe that as a sports physical therapist, there's a certain population of athletes and younger athletes that could be fine without an ACL reconstruction surgery. I don't know exactly in my mind what that percentage is, I do think it's a smaller number. And then those who will need a reconstruction surgery to get back to all functional activity and high level of sport, especially playing catch pivot activities."</p>	
3.2. Highlight that patients need to discuss the decision	Adolescents:	
	Female, 15-17 yrs old - "So just knowing the fact that they've had some someone go in there, like a professional and fix everything up. I feel like that helps."	

	aid with health professionals	Adults:
		Male, 21-30 yrs old - "It was for children and adolescents. But should be used with a parent and guardian with health professional. So I thought that was good."
		Male, 21-30 yrs old - "But if that disclaimers at the top, and it's you know, in bigger writing, you say like, okay, if I'm going to do this option, I should still speak to a professional rather than making this decision on my own."
		Male, 21-30 yrs old - "Your final step should be going to see a healthcare professional like a physio before you go back."
		Female, 18-20 yrs old - "Added on to the second one. Like should be used with guardians and health professionals. And then like in brackets, it's not made to replace advice from health question or something."
		Male, 21-30 yrs old - "I think that when I got mine down, I didn't really know what they were doing. And you wake up and your knees so sore. And you're like, "Why was my knee so swollen? But they've drilled through your tibia to attach this new data graph there?"
		Parents:
	Female, 41-50 yrs old - "Discharge procedures is that they do the medications, etc. And again, for myself, as a mother, none of it was discussed with myself."	
3.3. Clarify that choices should be made based on individual circumstances	Health Professionals:	
	PT, Male, 41-50 yrs old - "And it's also getting parents to understand what that is going to mean through the health professional. In terms of giving way – swelling, locking, hints of an unhappy knee is indicative of chondral damage, or meniscal tears."	
	Adolescents:	
Female, 15-17 yrs old - "Like the psychological issue, like it depends on like your circumstance, but I feel like it should still be talked about with your professional."		
Female, 15-17 yrs old - "You gotta listen to your own body, because someone could be telling you something, and you could not feel the same."		

		<p>Male, 15-17 yrs old - "You know you might get clearance from your health professional but you don't feel confident in your knee yet, for example."</p> <p>Adults:</p> <p>Female, 21-30 yrs old - "I do like to this says Not everyone will return to pre injury sport. Because lots of things can happen. And all of the recoveries can be different."</p> <p>Parents:</p> <p>Female, 41-50 yrs old - "Delayed ACL surgery doesn't sound that bad. But also I feel like it is very circumstantial."</p> <p>Female, 41-50 yrs old - "It should be an individual choice. And I think what you're saying there is sort of reflecting that, you know, you make this decision."</p> <p>Female, 41-50 yrs old - "Remembers that everybody's gonna have different results."</p> <p>Health Professionals:</p> <p>PT, Male, 31-40 yrs old - "Yeah, I so I like it. And I what I really like about it, is the questions to consider, you know, particularly around, you know, individual factors, age, sporting participation cost, all those kinds of things."</p>
4. More information about specific considerations following ACL rupture	4.1. Highlight the importance of social and psychological support, and whole-body health	<p>Adolescents:</p> <p>Female, 15-17 yrs old - "Only thing I think about is how long will I sort of be limited in my sort of getting around and being able to socialise or how long have you crutches for. like you're saying you to how long to kind of walk around and go see your friends that sort of thing. That's important."</p> <p>Female, 15-17 yrs old - "Yeah, I feel like the immobility that you have. I feel like that's really important. Because for like that first month, you're completely reliant on like, whoever you haven't house with you. Yeah, and you just can't do anything. Really."</p> <p>Female, 15-17 yrs old - "I wasn't really offered any psychological help."</p>

		<p>Female, 15-17 yrs old - "I noticed that because I had put most of my weight on my right leg instead of my left like white bear in it. I my hip my like lowered discs in my back have like never really been the same."</p> <p>Female, 15-17 yrs old - "I didn't see any of my friends for like, two months, I barely saw my family. Like, I was literally in my house for like, two months, I didn't see anyone, so it was like, very isolating."</p> <p>Female, 15-17 yrs old - "But I think there should be a lot more psychological support. Yeah. I think mentally, it's just as hard or harder than the actual physical injury. And often, that's missed as well, like, it's not even talked about how hard it is."</p> <p>Female, 15-17 yrs old - "Fear of and it wouldn't be whether you have ACL surgery or not afraid of re injuring and I think that that's a really big psychological step to get over whether you have surgery or not."</p> <p>Female, 15-17 yrs old - "So, with weightlifting, I kind of I don't even back off, but like, I can feel that my legs are a lot weaker that certain time of the month. But then two days later, it'll be completely fine."</p> <p>Male, 15-17 yrs old - "It was hard. But the mental part of it the hardest part, like getting past that."</p> <p>Male, 15-17 yrs old - "Like mental health that you're looking after, as well. Yeah. Because it's such a mental battle for you to get back and feel ready to play and be confident. Or as well, because you're consistent with the rehab."</p>
		Adults:
		<p>Female, 21-30 yrs old - "Psychological support is also important, that's something that I didn't really think about. Yeah, was like, how tough it would be mentally. So that would definitely be a good thing to have."</p> <p>Male, 21-30 yrs old - "For example, my glutes not switching on because of the knee and then like not focusing enough on them, which then puts more pressure on the knee that puts more pressure on my back can lead to complications elsewhere? Like it's not just a knee problem?"</p>

		<p>Male, 21-30 yrs old - "So definitely highlighting the whole psychological impact of if you're not ready, you don't have to go back."</p> <p>Female, 18-20 yrs old - "Remember when I was disappointed people told me that, like, you're not a full-time athlete. You're not getting paid to rehab. Yeah. And yeah, so it's like, to me, it's, it's like, important that kids know that that like when they say nine to 12 months, like that's what professional athletes are coming back in."</p> <p>Female, 18-20 yrs old - "Um, the psychological health. I think that's good. And really important that it stays there."</p> <p>Male, 31-40 yrs old - "That's a big component as well. I think just anything with any injury, really just a psychological rehab."</p>
Parents:		
<p>Female, 41-50 yrs old - "Not just about that what sport she can play but about the effect of the slow recovery on their social life. Being able to go and like walk."</p> <p>Female, 41-50 yrs old - "It doesn't incorporate any alternative things."</p> <p>Female, 41-50 yrs old - "Especially the psychological support or something. I figured it would kick in eventually, when finally realising how severe I guess the injury was. But no one ever talks to us about that."</p> <p>Female, 41-50 yrs old - "If you don't feel like doing your exercises, things like that, to know that, you know, that's normal that, that, you know, a lot of people experience the same thing, which is why those groups are good. That you can see what other people are doing as well."</p> <p>Female, 41-50 yrs old - "The big thing with the ACL with them and actually speaking to people who have returned the ACLs, because we do know, quite a few people that have"</p>		
Health Professionals:		
<p>PT, Male, 41-50 yrs old - "I think one of the factors that needs to be considered is your psychological support. That's probably the biggest one of the biggest issues that I think is coming more and more to the forefront."</p>		

		PT, Male, 21-30 yrs old - "Whether a patient needs surgery or not, is highly dependent on the person and what their needs and goals are."
4.2. Revise the management options to include evidence on ACL healing, bracing and 'prehabilitation'		Adults:
		Male, 21-30 yrs old - "I feel like besides those three routes, like you either, we could have option four do nothing."
		Male, 21-30 yrs old - "There's only like exercise and delayed and earlier ACL surgery – had you just thought about doing the other options like the brace protocol? If you've seen that the doctor cross brace one?"
		Male, 21-30 yrs old - "Like prehab like before you have surgery. It can take a long time to get an ACL surgery appointment. Even like, mine was two weeks. But like, in those two weeks, I was like, rehabbing my knee to the best I could before my surgery."
		Parents:
		Female, 41-50 yrs old - "So for us option one, we didn't really consider option one we considered our option one was bracing protocol option two surgery, and we decided we'd go first and bracing protocol."
		Health Professionals:
		PT, Female, 41-50 yrs old - "At the time, [ACL surgery] was what we thought was the only option. We thought that that was important to do. And then honestly, then I had a few people who, like, they weren't actually great surgical candidates, but they still went and had it because we thought that's what you had to do. And it really made me question like the necessity of it." PT, Male, 31-40 yrs old - "Yeah, so obviously, there is a few treatment options that are available in the sense of early reconstruction prehabilitation, or delayed reconstruction with a set date. So you can do prehab and then reconstruction, or rehabilitation exercise therapy/physiotherapy on its own with the option of surgery later if you need it."
4.3. Include more information on practical factors		Adolescents:
		Female, 15-17 yrs old - "It would have been good to know what like where the incisions would be, yeah, just so that you could have been prepared."

	influencing management choices	<p>Adults:</p> <p>Female, 18-20 yrs old - "As someone who did it in high school, you've got school, you've got a job, or at a job, you've got, like, you got to go to the gym, like four or five times a week, and then go for it again, as well, whilst you're going to the gym."</p> <p>Parents:</p> <p>Female, 41-50 yrs old - "The length of time on crutches and sort of you know, those length of time using sort of walking aids or with braces those sorts of things? I think that'd be something that a kid wants to know about."</p> <p>Female, 41-50 yrs old - "The options of quad, the quad graft, the patella graft, the hamstring graft, the donor graft. I mean, those are all the things that we've looked at."</p> <p>Female, 41-50 yrs old - "Is there anything about the requirement to have it immobilised? With a teenager, it was very hard to get them to wear a big, ugly, chunky brace."</p> <p>Health Professionals:</p> <p>PT, Female, 41-50 yrs old - "I treated someone years ago, who was the donor site for their child. And so I don't know if they're still doing that"</p> <p>PT, Female, 21-30 yrs old - "Add in something around 'Maybe even if I do have surgery quickly, what should I be doing until then?'"</p>
	4.4. Add or remove questions	<p>Adolescents:</p> <p>Female, 15-17 yrs old - "I think they're good questions. I guess the main thing that you want to know is like, how long does it take to get back? If I don't have surgery?"</p> <p>Adults:</p> <p>Male, 21-30 yrs old - "That's pretty good. Like that first one, because that's like, good, roundabout way of saying that you might not get back to pivoting sports, which is good."</p> <p>Female, 21-30 yrs old - "But a lot of people, well, they can be pretty clueless about these things. So I think that's a really good thing to have."</p> <p>Female, 18-20 yrs old - "I think the questions down the bottom are super good."</p>

		<p>Parents:</p> <p>Female, 41-50 yrs old - "Considering the cost Yeah and even a child is gonna be aware of those stresses and a family's, economics. so maybe having a question about the cost as well."</p> <p>Health Professionals:</p> <p>PT, Male, 31-40 yrs old - "What happens in the surgery? You know, like, because we've paid, you've obviously got a few graft choices. So I think they should know whether they're going to have it taken from themselves, or whether they're going to have a donor, or whether they're going to get a cadaver for. And then what that entails, like, you know, so they kind of have an explanation of it. And so they need to ask about that would be my something that, I would say, just as a side point"</p> <p>OS, Male, 41-50 yrs old - "Yeah, basically, what happens if I don't have surgery? The benefits of surgery, basically, are the two main things. Well, I need to change if I don't have surgery. Well, I need to change what sport I play but also if I don't have surgery, what will happen in the future? Like, what if my knee function without the ACL? They want to know if there's any long-term problems."</p>
5. Change or add information on rehabilitation, exercises and return to sport	5.1. Include more detail on return to sport following ACL rupture	<p>Adolescents:</p> <p>Female 15-17 yrs old - "I don't have the desire to go into a club anymore. Because I'm so scared that it will happen again, because I know that they still like a huge chance that will happen."</p> <p>Adults:</p> <p>Female, 18-20 yrs old - "I was all for surgery, because my goal was to get back to sport, and I just didn't think I trusted the process of having gone through rehab without having the surgery."</p> <p>Male, 21- 30 yrs old - "The takeaway you'd get from that page. Like it's possible. But it's, you know, a little bit of a risk. You know, yeah, you get through or not, but I guess you're doing it, knowing that's the case."</p> <p>Male, 21- 30 yrs old - "If you don't feel comfortable going back to sport, once fully recovered, you don't have to go straight back to sport."</p> <p>Female, 18-20 yrs old - "Feel like, yeah, you got a lot of false hope from people. Yeah. So I think that, like the tie, like giving a timeline is good. But it can also be like, really dangerous, because</p>

		<p>then people get to that 12. Like, I mean, I was at 12 months being like, I'm still not playing sport like.”</p>
		<p>Parents:</p>
		<p>Female, 41-50 yrs old - “I read statistics like that. Something very, similar, in my little delving down little rabbit holes, to find out outcomes. And when there was talk about returning to play soccer, I wasn't supportive of that. Yeah, for that very reason.”</p>
		<p>Health Professionals:</p>
		<p>OS, Male, 31-40 yrs old - "I think patients might read that like running, cycling, swimming, and they might go, I can't do anything for three months. Yeah, rather than I can do some of this stuff, but I can't do it in the same fashion." OS, Male, 41-50 yrs old - "I would be very hesitant to recommend a return to pivoting sports with no ACL for the younger people, because they are already a little bit lax in their joints."</p>
	<p>5.2. Refine rehabilitation progression timeframes</p>	<p>Adults:</p> <p>Male, 21-30 yrs old - “Well, for my second one, where I did conservative I was, I was cycling within a couple of weeks. I'm running after about a month.”</p> <p>Male, 31-40 yrs old - “All those timeframes that seem pretty accurate.”</p> <p>Female, 18-20 yrs old - “These timelines are a guide. Like, and like aren't certain. Yeah, but yeah, I think the other thing that's hard with it as well is like adolescence.”</p> <p>Health Professionals:</p> <p>PT, Male, 31-40 yrs old - “Rehabilitation for two to three months is not enough. Like it's just not enough. You know, we need at least three to six months like there's, it's hard because as we've said, it's like the research and guideline evidence is very thin on the ground, particularly for paediatric populations. But the Swedish guidelines for adults would be three to six months.”</p> <p>PT, Female, 41-50 yrs old - "Nine months, nine to 12 months with surgery. And without surgery, I don't see a reason why it should be shorter. Without of course, the [duration of] swelling may be shorter, because you don't have an operation. But it isn't always faster. It can be really the same. It depends on if it's only the ACL or there are also other structures which are injured."</p>

		<p>PT, Male, 31-40 yrs old - "It's rare that I see anyone get back to sport at nine months, then maybe that's me holding them back a little bit. It's not almost always 12 plus. I, but I don't know, maybe that's a confidence thing, or not a confidence, but a motivational thing for patients to if you say to them talk, it's gonna be 12 months. Sometimes that can be a bit confronting early on No, nine sounds a little bit better. You know? I think they think, you know, we definitely know it's possible, right? "</p>
	<p>5.3. Clarify the importance of testing rehabilitation progress and return to training or competition sport</p>	<p>Adolescents:</p> <p>Female, 15-17 yrs old - "So because I know this is return to sport. But to me is returning to sport. Unrestricted."</p> <p>Male, 15-17 yrs old - "Physio was really good. So he'd basically tell us every week yeah, okay, you can do this. And then he'd give us a letter to say, okay, she's allowed to do, you know, this part of that in her training, she's not allowed to do directionals she was only allowed to run straight lines or whatever."</p> <p>Male, 15-17 yrs old - "I do think to add in the just for the general person a clearance for return to sport that then must do a proper documented return to play protocol and "when cleared by medical professional."</p> <p>Adults:</p> <p>Male, 31-40 yrs old - "In that middle section here could have like, you know, clearance or passing test or something."</p> <p>Male, 21-30 yrs old - "Like a clearance to return to sport with testing or like something like that."</p> <p>Female, 18-20 yrs old - "I don't know, maybe you could do like a staggered return to sport and other activities or like something."</p> <p>Female, 18-20 yrs old - "Even adding the word gradual into the return to sport."</p> <p>Parents:</p> <p>Female, 41-50 yrs old - "Like with that clearance with a health professional. It's the what do you call it? like the return to sport criteria? I think that's really important."</p>

		<p>Female, 41-50 yrs old - “Return to sport, they do a psychological assessment, as well. And it's sort of not just physical, it's a psychological test, as well. And I think that's pretty important.”</p> <p>Female, 41-50 yrs old - “You know, they look for, you know, strength testing of at least 90% of your other side. So, you know, on your leg press or knee extensions, or you know, isometric testing.”</p>
		<p>Health Professionals:</p>
		<p>PT, Male, 21-30 yrs old - “So you have a lot of people who come out of surgery if they're not like physically active in general did struggle or like physically active prior to surgery would find it much harder. Yeah, it would be a good way to like, have that looked at as for so like, objectively measuring whether your injured limb is at least at a certain percentage of your non injured limb prior to surgery.”</p>
		<p>PT, Female, 41-50 yrs old - “I would rather say “If your knee is giving way, please talk to your health professional” because if you write it like that it's kind of already the decision if it's more giving where you need to do the operation and I find it it's more individual and it's makes sense maybe to talk to a health professional to really decide if this is a reason to opt for the surgery or not.”</p>
		<p>PT, Male, 31-40 yrs old - “Mention that the body can or the muscle system can learn to take over the role of an injured ACL to restabilise the knee something like that.”</p>
	<p>5.4. Expand on the type of exercises involved in management</p>	<p>Adolescents:</p> <p>Female, 15-17 yrs old - “And that's why I said we need to get your gym membership.”</p> <p>Adults:</p> <p>Female, 21-30 yrs old - “One could be a little more than what someone should be doing right after surgery. So it could be the exercises that your doctor or physical therapist, like prescribes you as to not do something too fast.”</p> <p>Parents:</p> <p>Female, 41-50 yrs old - “You're not sure what kind of muscles are talking about the kind of description of the treatment is unclear.”</p>

		<p>Female, 41-50 yrs old - “Was just thinking is the range of movement and the flexion so there was so much emphasis with flexion and he needed to get it.”</p>
		<p>Health Professionals:</p>
		<p>PT, Male, 31-40 yrs old - “I primarily sort of focused on the types of exercises, I just focus on giving them information about exercises. Giving them that and then sort of telling them that they need, like, probably adjunct therapies, like, hands on physiotherapy as well to go to go with the exercise as well.”</p>
	<p>5.5. Consider the long-term need for ongoing “hard work” and injury prevention</p>	<p>Adolescents:</p>
		<p>Female, 15-17 yrs old - “This is a requirement to think about the longevity of it. And obviously staying light and life is going to support that structure better.”</p>
		<p>Female, 15-17 yrs old - “Without Surgery, you still put a lot of effort into your exercises, which is not easy to do and be consistent.”</p>
		<p>Female, 15-17 yrs old - “I wouldn't say like missing school, but I would just say time consuming.”</p>
		<p>Adults:</p>
		<p>Male, 21-30 yrs old - “Just emphasis on either option, you need to continuously keep it up. Something like both options, have uncertainty with the standard of recovery and require hard work. Yeah. With exercises now and continuously going forwards.”</p>
		<p>Male, 31-40 yrs old - “More emphasis on how on the hard work on exercises to get better. I guess a lot of people don't know that that's going to happen. So even like just that image of like, you know, someone doing the knee extension machine or something. Or like just an image of their quad and saying like it takes hard work.”</p>
		<p>Female, 18-20 yrs old - “I did mine four years ago, and like, I still have to go to the gym, otherwise, my knee feels weak. And like that was four. So I think some people assume that once you're back, you're back”</p>
		<p>Female, 18-20 yrs old - “Mean, to me now long term is like my whole life. whether we say like, you know, like, lifelong exercise or something like that to make them consider that.”</p>

		<p>Parents:</p> <p>Female, 51-60 yrs old “Unfortunately, there’s so much pressure on these kids to get back to sport. And, you know, they feel the need that they’re missing out and stuff like that. There’s, you know, and it’s hard trying to tell someone not to rush not to rush it back.”</p> <p>Female, 41-50 yrs old - “I think it would say need a certain level of dedication or something like that. Yeah. Because I think that’s what made her successful is that she was dedicated to doing it.”</p> <p>Female, 41-50 yrs old - “Because it’s that consistency, as you probably saw, you know, you have to keep going with it.”</p> <p>Female, 41-50 yrs old - “Some people may think once I finished my nine months of therapy, I’m done. But it’s like, it’s a lifelong journey, if you will.”</p> <p>Female, 41-50 yrs old - “I’ve been reading a lot about them. And later on down the road, like a lot of people look at right now. And I want to look at how’s the knee gonna be when they are 25 or 30.”</p> <p>Health Professionals:</p> <p>PT, Male, 41-50 yrs old - “But the recovery and the rehab is actually the hardest bit. And most surgeons will tell you, or at least most of the surgeons are as actually more and more don’t really matter what sort of version of the surgery we do. As indeed, we do the hard work afterwards. We are the ones that have to. I think probably in terms of decision making, whichever one you choose, you need to do a boatload of hard work.”</p> <p>PT, Male, 41-50 yrs old - “So I stress immediately that the hard work begins on the moment you wake up from surgery and will not stop, you will have a year of rehab. And after that, you will still have to maintain the strength and do spend a lot of time focusing on your knee control. It becomes it needs to become a lifestyle change rather than just yeah, I’ll turn up for physio every so often. And I don’t think surgeons because they haven’t got the time they stress it enough.”</p> <p>PT, Male, 31-40 yrs old - “But I liked that closing, you know, use, you know, require ongoing hard work and exercises and use the people around you for support and choose whatever option is best for your situation. I think that’s nice as a closing statement.”</p>
	6.1. Use simple language	Adolescents:

6. Modify language and formatting used		Female, 15-17 yrs old - "Irreparable was that a bit hard to understand"	
		Adults:	
		Male, 31-40 yrs old - "You're not using any technical, like overly technical terms, not using any jargon that people can't understand. It's simple language."	
		Male, 31-40 yrs old - "Think it's all sort of worded. Like, easy to understand. it's all it's all pretty clear to me how its worded."	
		Health Professionals:	
		PT, Male, 31-40 yrs old - "Adult comprehension and health literacy isn't so good, but in kids, it may not be even as good."	
	6.2. Make the section more concise		PT, Male, 31-40 yrs old - "We're assuming that the patients who go to weigh all this information up will have the health literacy, the time to do so and the interest in doing so."
			Adults:
			Male, 21-30 yrs old - "I like now it's nice and simple."
			Male, 21-30 yrs old - "No more stuff in the graph, I think we'll clutter it too much."
			Health Professionals:
			PT, Female, 41-50 yrs old - "Yeah, I find this whole page quite confusing. I would say I would remove the issues of the knee not necessarily caused by the treatment choice."
	6.3. Modify presentation of harms, formatting, graphics, or statistics		OS, Male, 41-50 yrs old - "I found this whole thing very wordy. wordy. Yeah. Yeah. So unless the parents are completely involved, right, they don't really would read all of it. They would not read all of it. Unless they're that sort of parents like very much. Totally involved. When he comes to see me, they just want to know, the very simple stuff."
Adolescents:			
Female, 15-17 yrs old - "I think the little people, I just think it'd be better set. If like 10 of those people were purple, and it was just on the one graph than the rest of them were blue."			
Adults:			

		<p>Male, 21-30 yrs old - "I liked on the other page, you had the little infographic with the people."</p> <p>Female, 18-20 yrs old - "If it does give way, pretty heavily, then it could definitely injure something else."</p> <p>Male, 31-40 yrs old - "If someone's got an unstable knee that keeps giving away and causing other injuries, is that not going to increase their risk? Of having osteoarthritis?"</p>
		<p>Parents:</p>
		<p>Female, 41-50 yrs old - "It might be worth keeping the left-hand side as sort of a shaded blue, and then the right hand side, a shaded purple."</p> <p>Female, 41-50 yrs old - "It probably would be more clear, having the two distinct colours."</p> <p>Female, 41-50 yrs old - "My brain went straight to I want to know whether there's early onset arthritis, and you see that more in people who have had knee surgery than those who haven't for example, like that, that was a real question in my head."</p> <p>Female, 41-50 yrs old - "Visually the difference between the two actually jumps out at you. So what I would do is so these, this two to four weeks, move it up slightly"</p>
		<p>Health Professionals:</p>
		<p>PT, Male, 31-40 yrs old - "The pictures could have more impact for a kid"</p> <p>PT, Male, 31-40 yrs old - "I think that's a better representation for the patient than two scores that they have to then interpret, you know, filter through another level, and which they're not necessarily have the skills to do. So if it turns out that yeah, the clinically, minimal clinically important difference isn't there, then I would just say that you think that even maybe remove the graph and just have that summary. And it could even simplify it further?"</p> <p>PT, Male, 41-50 yrs old - "Yeah, I think the next one looks too busy. I know what you've kind of tried to do. But if you're a parent or a kid that's going to look at that that one doesn't. You know, you've got the coloured in people, and then you've got a bar graph. And then I think the first one works better. Just in terms of how it looks. This one is just statistics. Yeah, it's just a statistic box on the right where one person returning to pre injury sports."</p>
		<p>Adolescents:</p>

	6.4. Use positive messaging	<p>Female, 15-17 yrs old - "It's hard because every injury is an individual injury and pending on how much you put into it, how active you are. You know, like, just because one person can do it doesn't mean the next person can't do it"</p> <p>Female, 15-17 yrs old - "When you've got a tough journey to get through, at least, you know, everyone else was stuck at home (COVID 19) as well, in some respects."</p>
		Parents:
		<p>Female, 51-60 yrs old - "Your knee you know might be stronger if you need surgery later or delay something like that"</p> <p>Female, 41-50 yrs old - "These are just averages of research. And, you know, that doesn't mean this is what you have Yeah, something like that, just so that they always like to look at things from a more optimistic lens."</p> <p>Female, 41-50 yrs old - "Making sure you've got people around you for support, you know, whole body health. Like we've mentioned before, taking care of like their mindset, some days, you're not going to feel like doing your exercises, and other days, you'll be more motivated. So being aware of that as well. And then staying positive, as you said, trying to be optimistic with how you're looking at it."</p>
		Health Professionals:
		<p>PT, Male, 41-50 yrs old - "But we all when you when you talk to a patient, just to say, if it's unsuccessful, it's not your fault, it just happens. Sure, you know, and we need the time and from time to time we have just to change the process. Yeah. Because in my experience, people just react very self-criticism, like, 'Oh, if it's not working, it's my fault because I didn't do enough training or I was too lazy.'"</p> <p>PT, Male, 21-30 yrs old - "Yeah, and I really liked that last bit down the bottom, like, it's quite obvious that whatever works best for you, in your situation, at the best at your time with your sport, remain positive is one of the main things because like, we know, obviously, there's a big psychological problem following ACL stuff. So use the people around you for support. So I like that."</p>
		Adults:

7. Understanding the translation of research	7.1. Improve the usability of the decision aid	<p>Male, 21-30 yrs old - "If I had something like this I probably would have tried conservative but I didn't really have a there wasn't another option back then you're a young soccer player if you do your ACL you get surgery done."</p> <p>Male, 21-30 yrs old - "You have a list of healthcare professionals or the route you should take, like being a physio prior to going straight to surgery. Even before Doctor."</p> <p>Parents:</p> <p>Female, 41-50 yrs old - "I think it's better it's better to use as an aid for someone explaining it rather than just handing it to someone to kind of decipher."</p> <p>Female, 51-60 yrs old - "Will this be like a document that people can look at? Or is it going to be like that, how's it going to be presented to people."</p> <p>Health professionals:</p> <p>PT, Male, 31-40 yrs old - "I would be a bit overwhelmed by this, I think it was a patient to be like, can't make this simple in my own head, like, I don't know, just my experience with patients. Not that it is a simple decision. But I find when patients are overwhelmed, they tend to just kind of they grasp for certainty. And I always get that from surgeons, because they make it so black and white. And so that's a priority is to make sure that the information isn't overwhelming. And I think it's just a bit too much content. Maybe more could be presented graphically."</p>
	7.2. Clarify the uncertainty of evidence and outcomes of each option	<p>Adolescents:</p> <p>Female, 15-17 yrs old - "Even if you have surgery, I guess it's not a guarantee to get back to sport, even, you know, at school and that as well."</p> <p>Adults:</p> <p>Female, 18-20 yrs old - "I didn't want to take the chance of trying something new if it was, yeah, if it was less researched on or if it was less used."</p> <p>Female, 18-20 yrs old - "I think maybe just something about like, both, like both options have uncertainty."</p> <p>Female, 18-20 yrs old - "I really liked the preface about not everyone will return to pre injury sport with either option."</p>

		Parents:
		Female, 41-50 yrs old - "The first thing he said was, her ACL is torn, she needs to have surgery. And he wasn't open to telling me anything else."
		Health professionals:
		PT, Male, 31-40 yrs old - "I always find it challenging when they're a little bit younger or elite level athletes, because obviously, they're not catered for in or looked at with the some of the research. So I think that's when it's really challenging, because you're already dealing with uncertainty. And I think it's always a difficult one, because they're looking for, I think they're kind of almost leaning on you for direct guidance. I think when you've got another operator, say, as a surgeon coming in and saying, This is what you need to do, it's much easier for them to take route, if that makes sense. I think, yeah, presenting uncertainty in itself, is a challenge to parents and adolescents, because I think they're looking at that stage in a, you know, what's probably a bit of a traumatic time for them for a clear answer and what they need to do."
	7.3. Keep or remove statistics using adult data	Adolescents:
	7.3. Keep or remove statistics using adult data	Female, 15-17 yrs old - "Even if you are younger athlete, to see what the outcome is later on."
	7.3. Keep or remove statistics using adult data	Adults:
	7.3. Keep or remove statistics using adult data	Female 18-20 yrs old - "I feel like I have like, mixed feelings, because those could be this good. Adult is pretty much anyone over the age of 18. So I feel like you could do young adults, like let's say less than 25. Because I feel like the stats, if you can get that specific, wouldn't change the decision process behind let's say, the 17 year old if they work to re rupture in their early 20s."
	7.3. Keep or remove statistics using adult data	Male, 21-30 yrs old - "But I assume that if you were 19, and you had just done your ACL, then you'd want some data."
	7.3. Keep or remove statistics using adult data	Female, 18-20 yrs old - "What if someone was 17? Yeah. And they may want to look at both. If they're right on that edge, and not really knowing like, Okay, well, should I be considered an adolescent? Or should I be considered an adult, they may want to look at both."
	7.3. Keep or remove statistics using adult data	Male, 21-30 yrs old - "It's obviously adult data. I was just confused jumping between the two."
	7.3. Keep or remove statistics using adult data	Female, 18-20 yrs old - "Because well, if yeah, if this depends where you're putting it, but I assume that if you were 19, and you had just done your ACL, then you'd want some data on that"

		<p>as well, because you wouldn't really fit into the other category. I feel like this is a bit more like it gets into like function and, and stuff. And more into like complications, which is a bit more of a adult topic.”</p>
		<p>Parents:</p>
		<p>Female, 41-50 yrs old - “I thought that I thought the whole study was the under 18. So I didn't realise you had both over and under 18. I think that was my I just assumed everything could be under 18.”</p>
		<p>Female, 41-50 yrs old - “I think you should give someone all the information.”</p>
		<p>Female, 41-50 yrs old - “Good to know that, you know, say if you were 17 or closer 18. You know, maybe you could pay more attention to these numbers.”</p>
		<p>Health professionals:</p>
		<p>PT, Female, 41-50 yrs old - "If I was explaining this to someone, I'd say, Look, we don't have lots and lots of research on someone your age. But we have research on people who are 20 and 30. And they're weekend warriors. They're not elite athletes. This is this is the information we have."</p>
		<p>OS, Male, 31-40 yrs old - "So these are two different populations. And I stress that to patients, I treat my adolescent patients, and my young adults very differently to my adults, or my degenerative ACLs that are in their 40s or 50s, they get treated very differently, and more often non operative managed for that reason. But I think I treat them as three different categories of patients, in my mind, it's probably because we have poor data and understanding of them. But very poorly, we have higher risk factors in patients under the age of depends on how you classify them, but maybe under the age of 18, or maybe under the age of 25. These factors are very different. So yeah, I don't think this data is appropriate to use in that setting."</p>
		<p>OS, Male, 31-40 yrs old - "And if this was an adult one, sure I think but highlighting some of the drawbacks of the data is important. But yes, this is kind of what that research says. I think to use in adolescence is not appropriate."</p>
		<p>OS, Male, 51-60 yrs old - "You're using adult data to aid in decisions for children, and you can't do that. So the whole thing is terrible. I really would suggest that you reconsider what you're doing."</p>

PT = physiotherapist; OS = orthopaedic surgeon