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ONLINE SUPPLEMENTARY DATA

**Supplementary Table 1: Domains generated according to Patients statements
(N=29; 60% females; mean age 62.7 years)**

Item	Statements
Domain 1. Pain (Duration, severity, frequency)	<p><i>Osteoarthritis in everyday life is minimal. You feel some discomfort. But when the big push comes, well, you don't move. No way, you're not moving. It's the pain that's definitely dropping you (FR4)</i> <i>The discomfort is more than I usually experience (AU2); it would be extreme and it would be ongoing and it wouldn't be easily managed. It would go on for a long time (AU3)</i> <i>Intense, intense, intense, intense pain, like when you have a toothache (FR3)</i> <i>Much more severe acute pain (AU3)</i> <i>When I was at rest, the pain stayed, centered on the top and bottom of the knee. And then as I didn't step on the floor anymore, I didn't have this throws. (FR3)</i> <i>It wouldn't go away, that it would be something much harder to manage (AU3)</i> <i>In the restaurant, I'm sitting low, I need a hoist to get up so much I suffer. It's awful, very, very violent pain (FR27)</i> <i>Pain at night..., I didn't know how to get into bed (FR5)</i> <i>Or pain that wakes me up at night as well. (AU2); its usually at the end of the day when its at its worst (AU2)</i> <i>When it's the big push it's just for a few days and it doesn't stop anymore (FR4)</i> <i>The increase in pain, and the pain lasts longer (AU4)</i></p>
Domain 2. Swelling	<p><i>My knee was swollen, it was swollen (FR25); It swells immediately. I feel like I have a big bandage around my knee actually (FR14)</i> <i>This pain and feeling, but I think that's the liquid (FR14)</i></p>
Domain 3. Stiffness	<p><i>I can no longer bend my knee, I can no longer stretch it (FR24) I feel it is stiff in the morning(FR23)</i> <i>Even to go to the toilet I have to sit down, I have to put my hands on my sides because I can't get down (FR16)</i> <i>I'm definitely stiffer (AU2)</i></p>
Domain 4. Buckling	<p><i>I live in a mill so I have to go up and all that but sometimes my knee gets lost at that moment (FR27)</i> <i>Going up the stairs, I thought my left knee was going to give way (AU4); And sometimes my left knee just wants to give in (AU7) There's just this lack of control (AU7)</i></p>
Domain 5. Other symptoms	<p><i>I remember the right knee, so last year it hurt me very, very badly, with the feeling that it was very hot, swollen (FR18) So the knee I tell you, who had swollen, and the knee very hot (FR5)</i></p>

Item	Statements
	<p><i>It's been three to four days now, it's not cracking too much, it finally goes as soon as I force too much or things like that, it crackles (FR14) It makes noise as if a bone was breaking (FR24) Oh my God, it's cracking, it's awful (FR27)</i></p> <p><i>My knees don't look very pretty either, they're a bit lumpy and they make noises (AU9)</i></p>
<p>Domain 6. Triggers (Tiredness, activity, movement)</p>	<p><i>Perhaps the fatigue was more severe. I know very well that it was because of this that I had more pain (FR21)</i></p> <p><i>They seem to be worse in the evenings, maybe because I'm tired (AU4)</i></p> <p><i>I just pass the first second gear, the first second, it kills me (FR16)</i></p> <p><i>Despite all this, it gets worse when I make a repetitive movement that is heavier (FR6)</i></p> <p><i>It would be more repetitive movement (AU3); If I've walked too much, that's when I would notice it (AU9)</i></p> <p><i>I pivot on my hip and I get sharp discomfort, that is usually associated with an increase in discomfort (AU2)</i></p> <p><i>It is true that one hour, standing up, I suffer (FR11)</i></p> <p><i>So I might have to do something, so I am standing for long periods (AU3)</i></p> <p><i>I think humidity is a factor (FR17)</i></p> <p><i>When it rains there as it is now, it is true that I may feel more pain than when the weather is fine (FR18)</i></p> <p><i>Weather interferes with it, makes it a lot worse (AU9)</i></p> <p><i>It appears in the evening, obviously. In the morning, that is, in the position where we are inert, that we do not move, and well it is often there (FR8)</i></p> <p><i>Either you read a book, you're sitting, okay, or you get in the chair and then I admit that sometimes I look until half past midnight. And there when I get out of the chair oh my goodness (FR11)</i></p> <p><i>Pain is more intense at rest than during operation (FR13)</i></p> <p><i>If I stop exercising I will get a flare or I will get some pain. It seems to be worse if I'm not moving (AU9); it seems that its after sitting for a really long time without getting up (AU1)</i></p> <p><i>Every time I've tried to carry something heavy, furniture or something like that (FR6)</i></p> <p><i>If I'm lifting beyond my capacity (AU5)</i></p> <p><i>I probably bend down in a way that is not right, and the damage is done, and I say to myself "good that's where" I feel pain, I feel it (FR2)</i></p> <p><i>Like I can be fine, and then you just move the wrong way (AU10); Sharp turning (AU5)</i></p> <p><i>I've given away kneeling, I don't do that at all. And I can't crouch (AU6)</i></p> <p><i>I know that this is often caused by an overflow of activities (FR1)</i></p> <p><i>It tends to be exercise-related (AU2); I might be doing some physical activity (AU5)</i></p>
<p>Domain 7. Consequences of the symptoms (Sleep, concentration, activity, need help, walking)</p>	<p><i>When at night you are awake because it starts at night anyway, it starts (FR5)</i></p> <p><i>It disrupts my sleep AU1); ...it wakes me up because it starts to ache (AU9)</i></p> <p><i>Even when I can go out, it prevents me from going somewhere because it hurts so much (FR20)</i></p> <p><i>Well, obviously I'm prevented from doing things, walking could be difficult, lifting could be difficult (AU5)</i></p>

Item	Statements
	<p><i>It prevents me from concentrating, reading anything or doing anything, because it hurts too much (FR20)</i></p> <p><i>Apart from putting on this brace that I wear when I am in my daily activities, when I am at home (FR14)</i></p> <p><i>If I don't put the brace on them I'm bound to get a flare at the end of the day (AU6)</i></p> <p><i>You have to swallow medication and all that to calm down (FR20)</i></p> <p><i>I try to take as little medication as possible but when it really goes wrong, I have painkillers and when it really is very strong (FR25)</i></p> <p><i>Its also feeling the need to take anti-inflammatory medications (AU2)</i></p> <p><i>I didn't have to have the same seizure, because I don't remember having those painful seizures putting ice on me (FR5)</i></p> <p><i>Honestly, I don't do anything if my husband's not here, I can't do anything. I need someone to help me with the household, i.e. the daily cleaning, it's just cleaning up the food, vacuuming or moping and cooking (FR16)</i></p> <p><i>I would have to lean on someone's shoulder. I would have to be driven (AU7)</i></p> <p><i>When my wife was in a convalescent home, to go from the parking lot to her room, I had to take a cane (FR21)</i></p> <p><i>It becomes more embarrassing in everyday life because you are less and less able to do things (FR24)</i></p> <p><i>I've stopped doing things cause if I do them, the pain will come (AU9); It stops me doing anything (AU6)</i></p> <p><i>I couldn't do anything, I couldn't walk, I couldn't do anything anymore (FR2)</i></p> <p><i>You can't do much at all, very restricted (AU10)</i></p> <p><i>It never stopped me from driving, but on the other hand, playing sports, walking for a very long time, no. It's not possible, no sometimes I can't do it (FR15)</i></p> <p><i>Because it gets to the stage that the pain is so bad you just don't want to walk far at all [Au8]</i></p> <p><i>If I'm shopping I might decide to do shopping the next day if its really uncomfortable, rather than that day (AU2) I prioritise the things that I would do (AU3)</i></p> <p><i>When you walk in the ground, you are already not well balanced, but now you have to be even more careful (FR7)</i></p> <p><i>I can't drive, sit or get in my car it's hard to get up. When I am sitting, it is impossible to get up (FR19)</i></p>
<p>Domain 8. Psychological aspects (Mood, only annoy, frustration)</p>	<p><i>It's true that it affects morale outright, because it's pain that is horrible what (FR4)</i></p> <p><i>Sometimes I get a little bit teary AU1); It just gets me down (AU6) It just depresses me (AU4)</i></p> <p><i>It's hard to accept, it's hard to be dependent, I was dependent on my husband, I had my children, I had my grandsons who were there, and I couldn't do anything (FR2)</i></p> <p><i>Its just a frustrating thing (AU2)</i></p> <p><i>I try not to think too much about it (FR24); When you have pain, don't focus on it. See? See? I did yoga, I did things like that, self-suggestion (FR6)</i></p> <p><i>During the day, there's a lot of distractions going on around you, like traffic noises, birds, people... You can put the television on and watch that and you try and forget its there, but at night that is all you can</i></p>

Item	Statements
	<p><i>concentrate on because there's nothing to distract you (AU4)</i> <i>Its on my mind, whereas normally I try to ignore the pain (AU4)</i></p>
<p>Domain 9. Protective factors (Rest, change of activity)</p>	<p><i>To move the leg, to make this joint work, it was really very painful. That's why I told you, I suddenly saw the rather bleak future, and then I would start doing certain things again: I was sitting at my meal and I was missing salt or I don't know what, I thought "no I won't get up" (FR12)</i> <i>I've stopped doing things because if I do them the pain will come...Yeah, like avoiding running and avoiding high shoes. Avoiding the things that you know ... Avoiding walking for long periods, long distances (AU9)</i> <i>I need to have rest periods (FR15)</i> <i>I'd just basically rest my body for a few days (AU6); To prevent any sort of pain would be for me to lie down and not get up (AU4)</i> <i>To bring up, the flare, I don't know when its going to happen so there's nothing I can do to prevent it starting or happening and I don't know why (AU4)</i> <i>You've got to plan everything around your body [Au7]</i></p>

Supplementary Table 2: Domains generated according to Health professionals statements

(N=16; 61.3% females; 4 rheumatologists, 3 rehabilitation specialist, 3 general practitioners, 1 surgeon, 2 nurses, 3 physiotherapists)

Item	Statements
Domain 1. Pain (Duration, severity, frequency)	<p><i>The description of a pain that is different from that of everyday life (FrHP2)</i> <i>They come in with acute pain that is in addition to their usual chronic pain symptoms [AuHP1]</i> <i>It is mainly the pain that is much more intense (FrHP9)</i> <i>An increase or spike in pain above and beyond their normal background variation of pain [AuHP2]; it's the severity that increases [AuHP3]</i> <i>They might have pain at rest [AuHP4]</i> <i>There is an additional nocturnal pain (FrHP8)</i> <i>Some patients describe having nocturnal symptoms, so night pain [AuHP5]</i> <i>Pain that is more intense than you usually feel, more intense and longer lasting (FrHP11)</i> <i>Its usually persistent. I would think it lasts more than a day, not something that resolves on its It needs some kind of change in treatment for it to resolve [AuHP3]; its something that is a bit more persistent and not just part of their usual fluctuations [AuHP3]</i></p>
Domain 2. Swelling	<p><i>It swells, it swells because there are people who always have a little swollen knee but it's a pretty sudden change i.e. I had a small swelling, I have a big swelling (FrHP8)</i> <i>There can be signs of swelling in the joint as well [AuHP5]</i> <i>A flare-up of osteoarthritis is a more intense pain often associated with effusion (Fr10)</i> <i>You might even look at things like more effusion than normal [AuHP2]</i></p>
Domain 3. Stiffness	<p><i>Functional impotence, i. e. possibly stiffness, difficulty in bending the knee when it was not there before (FrHP8)</i> <i>Restricted range of movement, reduction in mobility [AuHP1]; they will describe some stiffness and difficulty moving [AuHP5]</i> <i>Stiffness too and a kind of morning lock (FrHP6)</i> <i>Increased stiffness in the morning that takes a little bit longer to resolve [AuHP5]</i></p>
Domain 4. Buckling	<p><i>If they're having problems with give-way particularly... those symptoms can increase [AuHP4]</i></p>
Domain 5. Other symptoms	<p><i>The patient who really has an osteoarthritis attack is the one you are going to arrive at, who has a red, hot, swollen knee (FrHP1)</i> <i>Like you have symptoms of increased swelling ... as well as increasing warmth and erythema [AuHP1]</i> <i>The audible crackles (FR5)</i></p>
Domain 6. Triggers (Tiredness, activity, movement)	<p><i>Some patients will advise that when they have a poor night's sleep... they do say that they experiences a heightened level of pain [AuHP5]</i></p>

Item	Statements
	<p><i>It is repetitive gestures but which are not only professional, which can be sports (FrHP2)</i> <i>Repetitive activities they're not used to [AuHP1]; It could be a repetitive increase in load and activity over time [AuHP2]</i> <i>Some people say they jarred their joint [AuHP3]</i> <i>If they stand for long periods of time or walk for longer periods of time it can flare it up [AuHP1]; standing for too long [AuHP5]</i> <i>Possibly a meteorological context, such as wet weather (FrHP9)</i> <i>People do identify changes in weather [AuHP1]</i> <i>They had severe pain after a moment of inactivity, for example, after falling asleep in their chair for two hours when they got up (FrHP5)</i> <i>Sometimes patients have advised that when they've stopped doing activities altogether they actually have more pain [AuHP5]; Sitting for a long period of time will stir up symptoms in general [AuHP5]</i> <i>If he overdoes himself a little bit during any activity, a move etc., it can get worse (FrHP6)</i> <i>Or it might be a higher amount of load [AuHP5]</i> <i>We also see patients who have made unusual efforts, so people who would have walked a little harder or participated in sports activities (FrHP16)</i> <i>More of it is something that they aren't used to doing, so if they did some sort of different activity that they're not used to [AuHP3]</i> <i>Or, an extended kneeling station (FrHP9)</i> <i>If its knees, if they've done squatting or kneeling or something like that they might find after that that it triggers it off [AuHP3]</i> <i>A local mini-trauma, a fall, hitting a piece of furniture (FrHP4)</i> <i>There can be an influence of whether there's a single case of trauma [AuHP2]; if there's been a mechanical injury that often gives it a flare of their underlying OA [AuHP4]</i> <i>Mood can accentuate or sometimes decrease the sensation of pain, depending on whether he is happy or unhappy (FrHP6)</i> <i>Generally people who are stressed have more pain [AuHP4]</i> <i>An overload of activity at the joints (FrHP14)</i> <i>So if they've done extra activity they could get a flare [AuHP4]; Some patients are able to identify that they've done a little bit more activity [AuHP5]</i></p>
<p>Domain 7. Consequences of the symptoms (Sleep, concentration, activity, need help, walking)</p>	<p><i>It also prevents you from sleeping when it hurts, when it really is, in the middle of a crisis (FrHP1)</i> <i>It can interfere with sleep as well [AuHP3]</i> <i>As soon as he has a relapse it is precisely something that marks him more and that will perhaps prevent him from doing activities and that will block him a little bit in his daily life (FrHP12)</i> <i>With a resultant functional impairment, they'll be able to walk less than previously; it really affects their functioning in their normal daily activities [AuHP5]</i> <i>We put a Zimmer splint on him to block his knee a little bit (FrHP7)</i> <i>When there is a flare-up of osteoarthritis, what do we do? We immobilize (FrHP2)</i></p>

Item	Statements
	<p><i>You have to give some anti-inflammatory drugs to make it go faster, because you can't leave them like that (FrHP1)</i></p> <p><i>In osteoarthritis flare-ups, it is a time when it is really much more painful, which forces him to take more medication (FrHP14)</i></p> <p><i>That will draw them towards having an increased dependence on pharmaceuticals for pain relief [AuHP2]; When they're tending to rely on more pain relief, that's an indication that they might be approaching a flare [AuHP2]; They say it started to flare up or the pain got worse so I took extra medications before it settled down [AuHP3]</i></p> <p><i>In osteoarthritis flare-ups, it is a time when it is really much more painful, which forces him to put ice (FrHP14)</i></p> <p><i>I ask them to rest and to ice it [AuHP1]</i></p> <p><i>Might need a little bit of help with grocery shopping or carrying heavy items [AuHP5]</i></p> <p><i>In osteoarthritis flare-ups, it is a time when it is really much more painful, which forces him to take technical assistance to get around (FrHP14)</i></p> <p><i>Some patients might benefit just to reduce load through the joint at the time, so maybe appropriate walking aids [AuHP5]</i></p> <p><i>Interferes with their lifestyle in some way [AuHP3]</i></p> <p><i>Restricted in movements then with a resultant functional impairment [AuHP4]</i></p> <p><i>Some patients say that during a flare up they won't do their normal walking activities [AuHP5]</i></p> <p><i>Pain in life, we all have pain, but a real pain that bothers you and so you can't... your program it is cancelled because really today you can't do it, you're in too much pain (FrHP1)</i></p> <p><i>Making sure that they're spreading out their domestic duties, their appointments, their shopping. Its more the load monitoring throughout the week [AuHP5]</i></p> <p><i>Some patients have advised walking up stairs, or standing, or getting out of a car.. [AuHP5]</i></p>
<p>Domain 8. Psychological aspects (Mood, only annoy, frustration)</p>	<p><i>If you are depressed for any reason, it will aggravate the depressive symptom (FrHP3)</i></p> <p><i>You've got your fear, you've got your anxiety, your frustration [AuHP2]; Some patients advise that they feel quite depressed and low and down [AuHP5]</i></p> <p><i>Some patients advise that they are just really frustrated. They can't do their normal level of activities [AuHP5]</i></p>
<p>Domain 9. Protective factors (Rest, change of activity)</p>	<p><i>Certainly avoidance of specific activities, for example twisting, heavy lifting, or things that will help prevent the flare up [AuHP1]; Some patients will avoid doing activities, completely avoid stairs [AuHP5]</i></p> <p><i>They are told to put their joints at rest (FrHP14)</i></p> <p><i>They should be involved in active rest [AuHP2]; They might need some ability to relatively rest the joint [AuHP4]</i></p> <p><i>They may look at changes in the living environment.. like bringing things up from ground to more level [AuHP1]</i></p>