**Interview Notes**

**Date: 27/07/2022**

**Participant: male Child & female Parent**

* C has not had any blood samples taken before. Feels it may be scary, especially if looking at it. Feels that a distraction would be helpful – perhaps playing on his iPad or watching something at the same time. C was concerned because of the pain he felt after the COVID vaccine, EM explained the differences between venepuncture and vaccination. C also concerned because he feels veins are important. C also feels too much information about blood sampling is scary.
* C would have no issue being starved.
* C enjoyed the grip test.
* C preferred treadmill to bike.
* C didn’t find the mask scary. He could breathe fine, but he felt the filter had a weird, almost disgusting, smell.
* Exercise bike: difficulty due to height (C was ~142cm), also painful private area. Didn’t enjoy.
* Treadmill: C felt it was tiring at the end – did 15 minutes. C pushed himself because he liked the achievement of doing the whole thing and knows it’s better for his body to do exercise. For motivation, C suggested encouragement from his family as well as bribery, e.g., 1 hour of screen time if they do well. C held the side bars whilst running because he wanted to make things easier and possibly for stability. He didn’t like holding the front bar. C didn’t like the safety belt as it got in the way.
* C really liked the idea of a certificate of achievement and his performance record. Other rewards he suggested were sweeties or an energy bar. P suggested leaflet to help people be more active.

**Date: 27/07/2022**

**Participant: female Adult**

* A suggested including mobile number in calendar invite for ease.
* A commented on the age range for older women and if I am interested in recruiting women during or post-menopause, advised lower range may be problematic.
* A has had bloods before, no issues with blood sampling, prefers IV catheter to butterfly.
* A preferred the treadmill to the bike.
* A liked the elevation and knowing when to expect it – also able to see the screen and understand what’s happening. On the other hand, cycling was loose if done too fast, and the seat was fiddly.
* Needed to hold at the front because she couldn’t see her feet, holding made her more comfortable about where everything was.
* A liked the performance record for everything. Not interested in certificate of participation. Also, would like to make sure the results of the study would be sent to participants.

**Date: 04/08/2022**

**Participant: male Child & female Parent**

* C has had blood sample before. Felt like a prick, didn’t bother him at all. He sometimes looked and sometimes didn’t look. Feels needle > IV catheter as he is not sure about anything in his body. Maybe yes to video whilst being blood sampled? P feels IV catheter better, also suggested likely to have drop outs especially children that don’t want the 2nd sample.
* C did not find the mask scary; it was interesting. Mask placement was just right for him. No weird filter smell/taste reported. P suggested having the kids watch something when the mask placement is taking place – YouTube?
* Treadmill was interesting and not too hard work. Easier when holding. Felt safe without holding on though. No issues tangling with line or with safety belt.
* Encouragement from mom / friend would be helpful, also bribery (food). Also saying things like other people did this and didn’t struggle at all etc to make him feel more competitive.
* Bike also fun, treadmill not necessarily boring (NB Brought seat down and forward as much as possible, then brought handles to the same level. Height ~140cm and reached fine). Imagined he was cycling somewhere. Idea – watch video of someone cycling. Extra motivation: Beach / forest if cycling, climbing mountain if treadmill (elevation). Stood up at the end as it made it easier.
* Bike > Treadmill.
* Yes, to certificate. Not too excited about performance record. P likes the idea of vitamin D and iron levels.
* P advised to shorten initial part of PPT for the pilot as kids may get bored – short attention span, so focus on what I’m interested in.

**Date: 17/08/2022**

**Participant: male Adult**

* Important to clarify on inclusion questionnaire that the activity level is based on physical activity rather than exercise only.
* People may lie about their exercise level.
* Quite a high proportion of people may be overweight / obese.
* T: He was trying to walk faster. Found initial slow speed useful to get used to the treadmill. Didn’t need to hold on but wouldn’t mind doing so – easy to hold front bar only though. Weird not to see feet – warn people about it. Didn’t feel filter had a weird smell / taste. He agreed good idea to have something to watch so head looks straight and less boring. Need to slow down at the end, was happy with how I did it.
* B: tried to pedal faster but the weights were too light, and it was going to fast / “empty” under his feet – suggested asking people to start slowly. Easier to do than treadmill because head moves less than treadmill.
* Things to do to pass the time – book, TV (esp. for children)
* Not sure ref: vitamin D - apparently there is no agreed reference range, sampling and ethnicity also issues so there is controversy?

**Date: 23/08/2022**

**Participant: female Adult**

* Eligibility: does regular 1-3 days and 60-180 minutes refer to aerobic exercise only?
* Start time: time between 9-10, 9.30 should be fine for most people but can offer option e.g. hard for them to get here for 9 if they have to drop off children to school.
* Ensure the 24 hours without exercise do not interfere with people's lives, for example if they cycle to work and they went to work the day before the study.
* IV catheter preferable as easiest and quickest, need to present it just right for the children especially.
* Blood samples for children: there is a distractor, also try and make the lab less clinical with posters / pictures or even some items / drink cups on the table that children could relate to (own ideas: Grogu, Minecraft)
* Breakfast: offer different flavours of fitness bars, not just one - need to check caloric content etc
* Treadmill: bar looks dirty, consider covering with masking tape so it can look cleaner and can be disinfected. She held the sampling line as she felt it was catching on her clothes and that mask was heavier if it was dangling. Felt mask was quite bulky / heavy and obscured peripheral vision. Didn't need to hold front bar. Warnings when things change were helpful.
* Good to narrate everything, before it happens as well as when it's about to happen. For example, say that when they finish the treadmill there will be a 30second slow down, then I'll take the equipment off and they can have a drink whilst I take the blood sample etc.
* Bike: spend time adjusting the bike, need to be on tip toes. Ask people to pick a pace that feels natural (rpm) and they can keep it or slow down if it feels more difficult - they don't need to stick to an rpm. Music when on treadmill? Useful to know things change every 2 minutes.
* Prefers treadmill to bike - neck hurt with weight of mask etc when on bike
* Discussed age range, she feels it's ok if I want my participants to be post-menopausal for women.
* Grip strength: ensure distance appropriate for size of hand, people with hands like me need a 5 and children need a 4. Need to make right angle on 2nd phalanx. Encourage for maximum and choose best of 3 tries - right hand then left then right again etc until all 9 tries.
* Yes, to performance record and comparing it to average based on ranges for age/sex
* Yes, to certificate for kids, ensure they have the university logos on them. Add spiel of what the kid did so they can talk about it at school, plus something to send to the parent so they can share it with the form tutor. Keep it simple and add pics of equipment, or even the child wearing the equipment if they want to.
* Voucher to nearby museum option for kids - take the Emirates cable car to science museum
* Yes, to vitamin D and iron levels

**Date: 30/09/2022**

**Participant: female Adult**

* Pictures on advertisements etc are not representative of different backgrounds – ethnic, economical, disability.
* Age for children not appropriate if looking for prepubescent children, may need to look at 8-10-year-old children instead – especially for girls.
* Age for older women appropriate so all have undergone menopause.
* Prefers IV catheter to repeated venepuncture, most people will be able to cope with one prick (especially if scared) but probably not more. Not sure about vein quality – not everyone has good veins.
* Breakfast: if too peculiar can bring own food. Bagel with dairy free butter is quite liked at schools.
* T: Screen in front of treadmill would be very useful, also music in the background would be a good idea. Cover numbers on control as distracting. Found treadmill straightforward and much easier, it’s just walking. Didn’t need to hold anything. Equipment brings the head forward a bit. Cable fine the way it was (NB used Velcro this time).
* B: Found it much harder.
* Yes, to sending people summary of results when the paper is out using friendly language.

**Date: 21/10/2022**

**Participant: male Adult**

* Underline the effect of caffeine and no coffee allowed on the day.
* OK to bloods but it depends on the quality of the veins, in which case catheter is definitely preferrable. No personal preference.
* Mention that on blood donation 500ml are given, so 2 x 3ml = 6ml is very small.
* T:
  + Tell people the video doesn’t mirror the treadmill protocol.
  + Video a good idea – people need to know when things change so they can hold on, so add timestamp and countdown.
  + Either explain control panel or cover it if things shown on the video.
  + A bit disconcerting not to be able to see feet. Suggest to people to hold onto bar when speed / incline increases.
  + Hold on all the time from halfway through (when incline starts being too much).
  + Tell people NOT to step back when on treadmill.
  + Suggest they stay around the white metal bars.
  + Stride length – variable based on speed and incline.
  + Loop Velcro around the cable and place it in a position so it doesn’t get caught if/when their arms swing.
* B:
  + Tell people if feels like going up gently up the hill – gentle, gradual change.
  + Tell people to stop pedalling if they want to stop.
  + Tell people to use either the flat or the curvy handles.
  + Saddle needs to be different / more comfortable.
  + Definitely need something to watch here.
  + Tell people to not go too fast, focus on the resistance and keep a comfy pace – keep an RPM if possible so they can maintain for longer.
* Performance record: need to be careful as some people are too competitive. Yes to numbers, but maybe not comparisons to average unless I make them feel better about themselves.
* There are guidelines of participation remuneration. Travel costs, brekkie + performance record / feedback + ? £££.
* If catheter is chosen, people may be worried about increased bleeding when their HR increases as they exercise or when they move their hands around – add something in the PI sheet about this.

**Date: 21/10/2022**

**Participant: female Child**

* Mother agrees girls in Y6 (so 10-11yrs) may have had their period.
* Child suggested the room looked scary (too clinical?). Ideas – less cables, pictures of animals
* No to bloods.
* Strange taste of filter (had warned her), but no issues.
* B: didn’t like seat, height tricky to get it right, had to lean, found it easy, didn’t help to aim for rpm and try to maintain it, yes to watching something whilst on the bike
* T: more fun than bike, found video with forest etc boring, confusing that it didn’t match the speed / elevation, maybe easier if it had matched speed / elevation, didn’t know what to do with hands and was constantly leaning on front bars despite being advised not to.
* Prefers treadmill over bike.
* Child doesn’t want participation certificate, mother said yes.
* Child finds the idea of a performance record boring / weird.

**Date: 27/10/2022**

**Participant: female Child**

* Would like to be distracted when blood sampled. Happy for bloods, prefers IV catheter to repeated venepuncture.
* Mother things that some Y5 girls may have had their period, but most Y6 are more likely to have had it.
* Make breakfast interesting.
* Filter had a weird taste, but it was OK.
* T: Prefers treadmill to bike. Liked the video – felt it was her. Tiring but cool to do the treadmill. Motivation – encouragement, bribery, prize at the end!
* B: fun, pedalled too fast though despite instructions not to, most kids her age will do things similarly she suggested. Too short for it and bike set too far back.
* Yes, to performance and certificate. Also interested in study results.
* Motivations: helping out, learning without learning by listening to things from a different perspective, fun and exciting
* Make it less clinical – ribbons on treadmill?

**Date: 27/10/2022**

**Participant: female & male Children**

* No brekkie = no problem
* Girl would like a distraction, boy wouldn’t
* Both girl and boy said yes to bloods, although boy said no initially then after some time said yes
* Both prefer catheter over venepuncture
* T: fun and easier than bike, yes to video (girl was calmed by it, boy didn’t care), girl felt more security holding bars. Boy didn’t like the mask much and felt the filter had a weird smell.
* B: both too short for bike, boy uncomfortable on testicles
* Performance – girl yes, boy no
* Certificate – as above
* Results summary – as above
* Yes, to vouchers / gifts!