**Supplementary Data File 1.** Themes, subthemes and additional exemplary quotes emerging from the interviews with the five participating people after stroke and the two physiotherapists who delivered the programme about the acceptability, implementation and practicality of the programme.

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| **Theme** | **Subtheme** | **Exemplary quotes** |
| Acceptability | High satisfaction with participating in, and delivering, the programme | *“The program is Tuesday and Friday, yeah you must come. I enjoy it. […] If you have the program you call me, I'd like to come again.”* F (57) |
| *“I used to enjoy coming. It gave me something to look forward to a couple of days a week.”* M (67) |
| *“[…] everything I did I found it an adventure and it was fun.”* M (68) |
| *“While I can’t tell you absolutely whether it works for every stroke victim, I can tell you it worked for the people I saw.”* M (70) |
| *“What I liked about this, and I think it's a winner, is just the atmosphere that you've created. I think it's friendly […]"* M (73) |
| *“Even at nine years [after the onset of the stroke] there was still benefits absolutely for what they were doing. [...] Because then sometimes it's not until that little bit further down the track that they still realise what those problems are and it gives them an opportunity to work on those.”* PT1 |
| Perceived appropriateness and suitability of the different programme activities and exercises | *“Yeah, [the balance between the educational activities and the other activities] was good because there wasn’t too much education stuff. […]* *I think most guys like a bit more physical than mental but having said that, it’s the physical side of things and how we all interact and how we all joke around and all that stuff, that’s so important because that enables us to go the other level, to open up with each other and I thought it was good. Really good.”* M (70) |
| *“Even the simple things of standing close with my feet closer together, that was also like a big challenge because I could feel my right foot, the muscles, they're moving and like working much harder, and that's good. That's challenging me.* […] *As a matter of fact, I sometimes wondered why my own physio didn't actually do all these balance things to get me more proficient in my balance.”* M (68) |
| *“[Balancing on the balance boards was] The most challenging, and that's what I wanted.”* M (73) |
| *“[…] using the computer simulations was quite good. I think that combination was quite good, it broke things up, it gave you an excuse to concentrate on moving things based on a computer screen, […]”* M (67) |
| *“What has helped is having the simulated falls, that has helped. I know that I could fall, prior to the stroke, and more or less summersault into a roll, setting up position. But I'd need a lot more practice at it, heaps more.”* M (73) |
| *“[…] the sitting down and having a yak and having a cup of tea and all this? Wonderful! […] If you skipped that part I […] would have been back here all the time but I […] I probably wouldn’t have - I wouldn’t be saying to you now I enjoyed it as much as I did.”* M (70) |
| *“I think it enhances learning if you know you're in a group of like-minded people rather than just having a really cold lecture type thing.”* M (73) |
| *“We could do some fairly high level with the walking exercises, with coordination which, on the face of it, looked like a simple exercise until you got some of them to do it.”* PT1 |
| *“I think that they really enjoyed the T’ai-Chi though in the last few sessions.”* PT2 |
| Recommendations for improvement | *“I think [the programme] could be done with more [participants], just need a little bit more fine tuning in your organisation, that's all. If you had that many people, you got the computer screen, you've got the activity and you've got the discussion, those three could be rotated things, which means you might need another space for the discussion bit.”* M (67) |
| *“the only thing I would have suggested that the safety footwear and all might have been introduced a little bit earlier, that's all, in the program. It came up about session three or four, just to get people on track that they would be safe up to that.”* M (67) |
| *“[The physiotherapists] saw a lot of the stuff that I needed a lot more attention with, and I think if I had spent a lot more time just on those aspects it would have assisted a lot more. But then it's difficult because I know that you can't tailor…. make a session for each person which is very tough, and you can't have a physiotherapist handling each particular person because it's too expensive to do that.”* M (68) |
| *“I don’t know whether there’s any value in having something more permanent to go onto for those that wanted to go on. […] Bit of follow-up, but more follow-up as to things that can benefit me. […] anything to do with keeping and getting me better.”* M (70) |
| *“In hindsight, would have been good to do [T’ai-Chi exercises] right from the beginning.”* PT1 |
| *“I guess to have done proper falling we would have needed higher mats so that we could actually get someone to fall. Because those mats were still low and still hard. So, potential for injury was still great.”* PT1 |
| *“[I would change] that Otago Exercise at the beginning, just purely because it was quite difficult to kind of adapt it for everyone at the same time.”* PT2 |
| *“I think that they really enjoyed the T'ai Chi though in the last few sessions, that might be interesting to incorporate that a little bit earlier on.”* PT2 |
| *“I think if we had lower-level clients you'd have to have a smaller group, obviously, so that you could have more hands-on time with them for safety issues as well.”* PT2 |
| Absence of safety concerns | *“I knew that I could do absolutely anything, and I had [name], I had you, I had [name] and I had [name] here to make sure that my safety was always of prime importance. And of course I would have that personal safety concern as well that I was responsible as well for my own safety.”* M (68) |
| *“No, I never had a concern for my own safety. Never at all. Never”* M (70) |
| *“No, not at all. No, [safety] was perfectly looked after, yeah.”* M (73) |
| *“[…] I think once you've been working for a while you learn to even subconsciously prepare the area and move things out of the way. So, we didn't have those issues.”* PT1 |
| *“[Safety issues?] Not really, […] we made sure that we had chairs or something sturdy for them to hold onto if we were particularly challenging their balance. Even like with the Exergames we made sure there was a chair behind them and that kind of thing. So, I think we tried to make it as safe as we could.”* PT2 |
| Implementation | Positive experiences with delivering the programme activities and exercises for people after stroke | *“It's easier to do education with a group rather than one on one. Having said that, when you're one on one doing a treatment often you're doing some education as part and parcel, but it's within your treatment. To have an actual set aside time for education as a group is good. Plus, we even saw, just in that short people of time, that there were friendships formed but everybody encouraged everybody.”* PT1 |
| *“I think [the different exercises that we offered] was a good level because we progressed each person. I think probably to start with, the first two or three times, we probably kept it a little bit more simple as we were trying to just see where everybody was at and how they recovered as normal treatment.”* PT1 |
| *“When we did the floor work, you needed to be near people. Not necessarily hands on, but you wouldn't have wanted to leave one person on end of the room doing an exercise on the ball while you're helping someone else do - getting up off the floor. That's a safety issue to me. Safety issue and being able to guide their exercise program and give them physical feedback as to where their weight was, what their technique was like.”* PT1 |
| *“[Attending one-on-one sessions] wouldn’t' get out of it what they got out of this. Because I think the social aspect is also [...]a big thing. Being able to not compare themselves, but seeing what someone else is doing and what they're able to do and realise that their impairments after stroke other people are also going through it as well and that they also have these problems with their balance and their confidence and that kind of thing. I think it was quite nice to be done in a group situation.”* PT2 |
| Perceived resources needed to implement | *“If you're going to run this you want to have a minimum requirement to run it, and as long as you've got a computer screen or access to one like we did here it's more than adequate.”* M (67). |
| *“I just wanted to know more and more. What about this and what about that? I thought that was very good. Now, how you fit that in also with the exercises, I don't know. It would probably have to be a three-hour session or something.”* M (73) |
| *“I guess to have done proper falling we would have needed higher mats so that we could actually get someone to fall. Because those mats were still low and still hard. So potential for injury was still great.”* PT1 |
| High suitability of the venue | *“Here the exercise are for two or three people, good, enough space.”* F (57) |
| *“I think it's a comfortable venue, it's a good size, you've got the computer screen up there. I think for a small group it's more than adequate.”* M (67) |
| *“We had plenty of space. As I said, it was just probably more just access to the equipment and things, but I didn't see any real major issues with it.”* PT2 |
| Practicality | Positive opinions about the ability of participants and staff to carry out the intervention activities and exercises | *“It was always the sufficient rest period to get you over any fatigue or whatever it is that you had because of the exercise.”* M (68) |
| *“I mean if you have guys like [the other participants] and those people all like spurring each other on so the bond alone makes you actually feel that you've got to push the envelope just that little bit more and you've got to test yourself just that little bit more and you've got to learn how to handle it. It's part of the confidence thing as well in the group. The group does tend to spur each other on.”* M (68) |
| *“I would know that my [hemiplegic] arm was always a problem anyway with the stiffness, spasticity. So just being in charge of my own safety of my body meant that I looked after it. Even in doing the falling exercise I knew that if I kept my elbow tucked in and I could fall it wouldn't be in the way and it wouldn't stick out and break off or anything like that. So, I knew that I've just got to obey my own laws and I'd be okay.”* M (68) |
| *“Exercise games. They were..., they tested me more than the physical stuff, except I - as you know- I wore myself out a couple of times.”* M (70) |
| *“I had never seen those particular [Exergames] before where you had to lift your whole knee and leg and… That took a lot of effort. I had to try to concentrate on doing that as well as performing the actual exercise itself and that threw me.”* M (73) |
| *“I wouldn't have wanted any more [participants], particularly with significant mobility issues, because we would have had to spread ourselves a bit thinner.”* PT1 |
| *“I reckon two [instructors] would be minimum, [...]. Also, we bounce ideas off each other. [...] The Exergames kind of style could be run by assistant or student.”* PT1 |
| *“Well, after a few weeks when we'd got to know the clients we were able to really tailor the exercises to their level. We were able to determine exactly what their impairments were and what they needed to focus more on. So in that response you were able to tailor the difficulty as to what it needed to be.”* PT 2 |
| *“I think you would at least need one physiotherapist running it, […] particularly when you go into individual work to be able to just direct what kind of exercises they need at that point. Then I think probably you could have a couple of physio assistants, […] you could have the physio say:”well, this is what I'd like you to work on” and then they could do a little bit of work there. But I think you'd at least need one trained therapist overseeing the implementation of the program.”* PT2 |

**Abbreviations:** F, female; M, male; PT, physiotherapist. Note: quotations of participants are identified with gender (age).

**Supplementary Data File 2.** Themes, subthemes and additional exemplary quotes emerging from the interviews with the five participating people after stroke about their physical, mental, emotional and social well-being after participating in the programme.

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| **Theme** | **Subtheme** | **Exemplary quotes** |
| Physical changes | Better balance | *“I have better balance. I can last longer and I can concentrate on the thing I'm doing.”* F (57) |
| *“My balance has improved a little bit, yes”* M (67) |
| No changes in balance | *“I still feel that I am imbalanced. I feel my strength has improved but I don't think my balance has actually improved all that much.”* M (68) |
| Increased strength | *“I feel that I'm stronger. […] Heavy things, well I can lift everything.”* F (57) |
| *“I think I've got a bit stronger in my legs, mainly because of persistent exercising and the strength of getting up and out of places.”* M (67) |
| *“…now able to stand up squarer, I'm able to stand up from a much lower sitting position, which I know is good. And I think my whole core muscles have become stronger as well because of it.”* M (68) |
| *“I can now turn on the - what I think are the glutes and I can support my weight a lot better than I used to.”* M (70) |
| Increased trunk flexibility | *“Yes, when I did the [trunk] exercises it definitely freed things up a bit, it really did.”* M (73) |
| Improved (independence in) functional activities | *“[…] I do a few more things around the kitchen because I’m not worried too much and give [my wife] a bit more of a hand than I was initially. I just relied on her to do things for me. She still does a lot of things for me, but if we need to get something, I’ll just go out and do it. […] I do feel that [I am more able to do more things on my own now] and I will give it a go first, yeah.”* M (67) |
| *“Getting off the floor has always been a big one for me. I always required help, and now with a little bit of effort and discomfort […] I was able to get up off the floor and it became no problem at all to get up off the floor using of course a chair, but it wasn't any problem at all.”* M (68) |
| *“I’m walking more normal. This is post-your class […] walking much more normal in the right foot than I ever have.”* M (70) |
| *“I don't know whether it's helped but I do, where possible, things around the house that I can do and I do help with the dishes and I do sometimes do a bit of vacuuming.”* M (73) |
| Increased endurance | *“[For example], I go to the garden, I can go longer. I can do longer hours.”* F (57) |
| Mental changes | Increased self-efficacy | *“A couple of times I realised I wasn’t as good as I thought I was. I realised that while I appear quite good, while I walk normally, I still suffer a little bit from stroke. I realise that no matter what level you are, you can, you always have something you can improve.”* M (70) |
| *“[With participating in this programme I expected to achieve] the world. That’s unacceptable and so what I concentrated on […] was to be able to go up and down stairs […] without having to cling onto both [rails and] look like an invalid of all sorts.”* M (73) |
| Increased confidence | *“I feel that I improved a lot from here, this program. Then it's good for me because I see and I learn and I learn more and more. Then I become more and more confident.”* F (57) |
| *“I’m much more confident on my right leg than I was […]”* M (70) |
| *“[…] I just feel a little bit more confident within myself that if I did fall over, I know how I'd respond to it.”* M (73) |
| Learning and acquiring new skills | *“Then I see how to get up, how to do this and how to do that. I learn myself, yeah.”* F (57) |
| *“[The safe landing / falls technique activities have taught me]to relax more on the fall and that even [while falling backwards] to just let yourself go and actually feel the adventure of falling is quite important. You know, feel it, let it happen. Like they say: “life's an adventure”, so the fall must be an adventure, let yourself experience it and just have fun doing it.”* M (68) |
| *“The [Exergames] were more challenging but in a different way. They were certainly more challenging for my mind. […] I think when you […] think about something you’re using your brain in a different way than when you’re just moving around. So, I think when your brain is trying to work out something in logic […] it stretches a bit more and that’s what [is] enjoyable […] so, that side of it was good fun and to me potentially there’s a lot of value to me.”* M (70) |
| *“I was looking for clues on how I could fall. It's going to happen and it will happen again, how do I minimise the damage that I'm going to do to myself.”* M (73) |
| Raised awareness regarding unresolved impairments in muscle functions | *“Since [the instructor] made me aware of that, I told my gym instructor that I needed to stretch more of my [hamstrings…]. […] this whole program does make you more aware of the deficiencies in your body and so you actually know that you need to attend to those things more closely. […] So maybe just being aware that I had a weakness made me work on that a little bit more.”* M (68) |
| Emotional changes | Persistent anxiousness of falling | *“[…] because if fall is unpredictable you know, but because certain environments, certain places you are aware that you will fall if you [are not] careful.”* F (57) |
| *“I still have that anxiousness of that imbalance situation and that's a very tensing situation that when you have that anxiousness of falling and so you tense up quite a lot.”* M (68) |
| *“It's really stupid when you think about it, yet I felt tensed up, I couldn't relax because I thought, I'm going to fall again. [The fear of falling is still there] Because what's at the back of my mind is that if I fall and I get pretty badly damaged, who's going to look after [my wife]?”* M (73) |
| Gaining new perspective about living with stroke | *“Well you know, […] all of us have been through the same trauma, so all of us are feeling broken, so all of us have stories to tell. And just listening to other stories where you're identifying with the problems that everybody has makes you feel that it's okay to have a problem.”* M (68) |
| *“It’s nice to hear other people’s points of view and it showed me that I’m not on my own in some of the bad things and not on my own in some of the good things.”* M (70) |
| Social benefits | Enjoying the social interaction and experience sharing | *“[Attending this program] made me fairly positive and I’ve enjoyed the social interaction. […] I think [the program would be different to me if the social activity was left out in a sense that] I think it sometimes gives you a bit of closure at the end of the session, rather than everyone packs up and walks out. I think it winds things down a little bit, effectively gives a nice end to something and just to generally enjoy people's company. Rather than just a mechanical thing where you come in and do it and go out.”* M (67) |
| *“It’s really nice to be able to open up and talk about some of the more personal things, if that’s what it is. […] it’s really nice that you can be in an environment where people open up about things. […] The discussion about the waterworks [incontinence] for example, that’s important to me so it was nice that we could all have an open chat about that sort of stuff. […] I thought for the first couple of weeks it’s just something you’re doing, but then as it became more normal I realised the value in it.”* M (70) |
| *“It was nice to be here and be treated like I really am, which is a normal person with a […] few issues from a stroke. [It] was good because it was an understanding of everyone that I had had a stroke and you didn’t have to go and tell anyone.”* M (70) |
| *“[…] the social aspect of it […] was just fantastic.”* M (73) |
| Instilling a sense of belonging to a group of peers. | *“[the discussions] in the morning, people saying how they experienced things, to see whether you were just alone or other people were experiencing things. It gives you a perspective that the things you experience are not just purely restricted to you. It's some common things we all experienced.”* M (67) |
| *“All of us have been through the same trauma, so all of us are feeling broken, so all of us have stories to tell. And just listening to other stories where you're identifying with the problems that everybody has makes you feel that it's okay to have a problem.”* M (68) |
| *“It was nice to be here and be treated like I really am, which is a normal person with a […] few issues from a stroke.* *[It] was good because it was an understanding of everyone that I had had a stroke and you didn’t have to go and tell anyone.”* M (70) |
| Promoting participation in community, social and civic life | *“[Participating in this programme has] actually made me consider, do I go to those meetings at the Stroke Foundation because I've seen how good this was over here, just interacting with all the people and I love these community things, they're so nice. Just helping others to spur them on and get them to do good things and improve themselves.”* M (68) |

**Abbreviations:** F, female; M, male. Note: each quotation is identified with the participants’ gender (age).