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A six-month telerehabilitation programme delivered via readily accessible technology is acceptable to people following stroke: a qualitative study

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Abstract

Objective To explore the experiences of participants during a six-month, post-stroke telerehabilitation programme.

Design A qualitative descriptive study to investigate participant experiences of ACTIV (Augmented Community Telerehabilitation Intervention), a six-month tailored exercise programme delivered by physiotherapists primarily using readily accessible telecommunication technology. Semi-structured, in-depth interviews were used to collect data, which were analysed using thematic analysis.

Setting Interviews conducted in participants' homes or a community facility.

Participants Participants were eligible if they had a stroke in the previous 18 months and had participated in ACTIV.

Results Twenty-one participants were interviewed. Four key themes were constructed from the data: 1. *'ACTIV was not what I call physio'* (it differed from participants' expectations of physiotherapy, but they reported many positive aspects to the programme). 2. *'There's somebody there'* (ongoing support from the physiotherapists helped participants find strategies to continue improving). 3. *'Making progress'* (in the face of barriers, small improvements were valued). 4. *'What I really want'* (participant goals were frequently more general than therapy goals and involved progress towards getting back to 'normal').

Conclusions Although ACTIV was not what participants expected from physiotherapy, the majority found contact from a physiotherapist reduced the feeling of being left to struggle alone. Most participants found a programme with minimal face-to-face contact augmented by phone calls and encouraging text messages to be helpful and acceptable.

Trial registration Australia New Zealand Clinical Trials Registration Number: ACTRN12612000464864

Contribution of the paper

- The use of readily accessible technology to augment rehabilitation after stroke was acceptable to people who received a six-month programme.
- People found text contact maintained a therapeutic bond with their physiotherapist.
- Remote contact decreased the perception of being left to manage alone after discharge from physiotherapy.

Keywords: stroke; qualitative research; telerehabilitation; telephone; text message

1. Introduction

In the past two decades, the number of strokes, combined with an improved survival rate [1] has increased the number of people requiring ongoing rehabilitation. This has given impetus to finding ways to deliver effective

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rehabilitation at a manageable cost. One promising area of investigation is telerehabilitation, the use of telecommunication to provide rehabilitation across distance [2,3]. Minimising travel for therapists and treating patients in their own homes will increase access to rehabilitation and may increase the salience of treatment. Rapidly changing technology has seen the development of promising modes of delivery for telerehabilitation such as wearable m-health solutions for home use [4], however most state-of the-art systems are some years from being widely available at an affordable cost.

There have been few studies investigating the use of readily accessible technology (telephone calls and text messages) to deliver or augment stroke telerehabilitation [5] or those which include family to help deliver an intervention [6]. However studies in other populations have demonstrated that use of these readily-available tools have a positive effect on health behaviour. Two systematic reviews have demonstrated the effectiveness of text messaging, to improve adherence to medication across a range of chronic diseases [7], the second to improve blood pressure control for those with hypertension [8]. In addition, two randomised controlled trials showed that personalised text messages improved physical activity and blood sugar control, in people with Type II diabetes [9] and automated text messages improved pain and function in those with knee osteoarthritis [10], These results encouraged the development of Augmented Community Telerehabilitation Intervention (ACTIV).

ACTIV is a six-month tailored exercise programme for people following stroke, delivered by physiotherapists, and designed to work towards a participant-selected goal. The aim of ACTIV was to enhance and support ongoing physical activity; it provided a combination of face-to-face visits, structured telephone calls and brief texts to encourage engagement. A Randomised Controlled Trial (RCT) which ran concurrently showed that participants who completed least half the ACTIV programme had a significant improvement in physical activity [11]. This qualitative study explored participants' experiences of ACTIV at the conclusion of the intervention. The question to be addressed in this qualitative study was: What are the experiences of participants during participation in a six-month, post-stroke telerehabilitation programme?

2. Method

2.1. Design

A Qualitative Descriptive methodology was used to investigate participants' experiences of ACTIV. The New Zealand Multi-regional Ethics Committee approved this study [MEC 11/11/089]. The trial was registered on the ANZCTR, registration number ACTRN12612000464864. Management of the registry is with the NHMRC Clinical Trials Centre, University of Sydney, Universal trial number (U1111-1130-0430).

2.2. Participants

Participants taking part in the RCT investigating ACTIV were recruited from four centres across New Zealand when they were discharged from outpatient and community physiotherapy. Inclusion criteria were over 20 years old, had been discharged to live at home, and had a first stroke resulting in a physical impairment, as assessed by the Functional Ambulation Classification [12]. They were provided with a participant information sheet detailing the qualitative interview at the end of ACTIV. Participants were eligible to take part in this interview if they had been allocated to the intervention arm of the RCT, regardless of whether they had completed it. A sampling grid was used to capture diversity in demographic factors, levels of impairment and completers and non-completers. Characteristics of interest were placed along the x-axis and the four recruitment sites along the y-axis to allow purposive sampling; the grid ensured a spread of characteristics across all geographical areas. Participants who fulfilled criteria of interest were invited to take part. Our sample size was primarily determined by our goal to achieve breath of perspectives. We also drew on the concept of information power as a final check for sample sufficiency [13]. Including participants who had withdrawn early from ACTIV increased the range of perspectives of the intervention.

2.3. Data collection

Semi-structured, in-depth interviews were conducted by SM (a neurological physiotherapist and qualitative researcher), who had not been involved in ACTIV assessment or intervention delivery. The decision to undertake individual interviews was made to accommodate those with communication difficulties, and to minimise participant travel, as they were from four different geographical regions. The interviews took place in participants' homes or at another mutually convenient location and participants were invited to include family members. Interviews lasted between 0.5 and 1.5 hours and were audio-recorded using a digital recorder. SM began each interview with a consistent statement about ACTIV, reassuring participants that she was interested in all feedback, and had no vested interest in the study's findings. Open-ended questions were used to explore participants' experiences, including their general impression of ACTIV, the goals they had selected, and their satisfaction with the use of technology. Appendix A is an indicative guide to the range of questions explored. Participants were able to give their opinions freely and were reassured these would be useful to guide future changes to ACTIV, whether they had found the programme helpful or not.

2.4. Data management

All interviews were conducted in English. The interview recordings were stored securely and transcribed, within 48 hours, by an experienced transcriber. NLS reviewed all transcripts and referred to SM for clarification if needed.

2.5. Data analysis

Consistent with Qualitative Descriptive methodology, thematic analysis was selected to analyse the data using the six-stepped approach described by Braun and Clark [14]. Thematic analysis was chosen as it gives more weight to context than content analysis. The context of answers was important, as differences in experience may have been dependent on non-ACTIV related factors such as living situation, previous life-roles, and interests. This method of analysis helped us understand who may benefit from this delivery method [15]. Initial analysis took place concurrently with data collection, so early findings could influence subsequent interviews, exploring novel or conflicting impressions. NLS listened to the interviews repeatedly and noted initial impressions. The epistemological background of the researcher, who is a physiotherapist with a realist worldview, unavoidably influenced data analysis [16]. Interviews were imported into QSR International's NVivo 10 analysis software. Data was coded line by line or in meaningful segments of text. Each code was described, and segments of data interrogated for fit, with data re-coded if not coherent with the description. The authors viewed the codes for overarching themes, which they named, and discussed the perceived relationship between the themes.

2.6. Rigour

The codes within each theme were checked for context to ensure the original meaning had not been lost and that the theme represented all coded sections. A researcher not involved with the study verified the categorisation of data (consistency check). Validity of data analysis was tested by SM and NMK (a qualitative researcher), who viewed the code definitions and themes prior to discussion with NLS, to discuss findings and debate the analysis. Following the discussion, there was some re-coding to reflect the subsequent shared understanding [17]. This helped ensure robust interpretation and consistency between the raw data, codes, and resulting themes. All the authors agreed on the final themes.

3. Results

3.1. Participant characteristics

In total, 21 people were approached. All consented to be interviewed and all were between three and nine months after stroke at the time of entry to the RCT investigating ACTIV. Only two of 47 participants in the RCT intervention group had withdrawn and both were recruited to the current study. One felt he had achieved his goals half-way through the intervention, so thought ACTIV had no more to offer, the other did not find it intensive enough. See Table 1 for the characteristics of participants.

Table 1
Characteristics of Participants (N = 21).

Age	72 years (median) 40–91 years (range)	
Sex	Male	10
	Female	11
Ethnicity	New Zealander	17
	European	2
	African	1
	Asian	1
Functional Ambulation Category	6: independent ambulation	12
	5: requirement for supervision or help with ambulation on all but level surfaces.	9
Location	Rural	3
	Urban	18
Living situation	Alone	10
	With spouse, family members or friends	11

3.2. Family member involvement in the interviews

Five interviews included participation of a family member (one husband and four wives). They made occasional comments and were able to remind or refresh the memory of the interviewees about specific details. None contradicted the participants or dominated the discussion.

3.3. Interview findings

Four main themes were constructed from the data. Although each theme described unique insights from participants, there appeared to be several interrelationships. The perception that *'ACTIV was not what I call physio'* portrays participants' initial response to ACTIV and highlights how the intervention differed from their expectation. The therapeutic relationship ameliorated this to varying degrees by *'there's somebody there'*, which started in person and continued remotely. The experience of '*making progress'* or failing to do so, led participants to focus on longer term aspirations of '*What I really want'*. The following section discusses each theme in detail with supporting quotes from participants who are identified by pseudonyms.

3.4. Theme 1 – ACTIV was not what I call physio

The first theme related to participant perceptions of ACTIV and reflected their understanding and

Table 2
Subthemes for Theme 2.

Theme	Subtheme	Example	Participant quote
There's somebody there	1. Encouraging me	Encouragement by the physiotherapist strengthened confidence in ability to achieve.	…right from the start I was determined to achieve certain things… but I found that by having somebody either text and sort of, 'keep up the good work' or visiting um it did encourage me to keep going. (Julie)
		On-going encouragement helped avoid participants becoming discouraged.	She [the physio] was terribly patient and she all the time gave encouragement like if he was struggling with something… she would say, 'well look let's just try this again…' never ever once made him felt inadequate, which I thought was such an important thing'.(Jeff's wife)
	2. Get off your bottom	Participants found the accountability to a real person pushed them to exercise and be active.	.if I missed exercises that day, I felt a bit guilty, you know, 'the girls are waiting for me to do my exercise and I haven't done anything' there so… (George)
		Text messages acted as a spur to complete an agreed activity.	...it was a good thing because it sort of got me off me bum and done these things, otherwise I wouldn't have done it. I'm a lazy bugger, if you can excuse my language, but I always have been and things like that got me motivated. (Martin)
		Family members appreciated being relieved of the burden of being the 'reminder'.	I mean I sit here and say to him, 'you can't sit here' and I can't keep trying to find things for him to do because then I feel as though I'm nagging. (Dan's wife)
		In some cases when the texts stopped the exercise stopped. The external prompts were the main driver of activity.	Because there wasn't the same incentive and guilt, the guilt phone calls, you know, to keep me going. (John)
	3. Someone who cares	Participants really valued the care from the physiotherapist.	…you feel as if you're in contact with somebody um, and so you're getting that support… emotional support as well, they [the texts] come through when you're feeling a bit down…so that would help sort of make you feel better and think, yeah there is somebody there. (Jane)
		Care demonstrated through empathy was powerful for participants.	It's someone who cares….someone who knows …. [what you are] going through. (Clare, participant with dysphasia)
		Care from the physiotherapist when it was not evident from family members	…they [family living in the same house] never even asked what exercises or anything like that because they're busy with their own life. (Jenny)
	4. Learning something new	Information when rehabilitation had been short, and the stroke still felt new.	…every time a physio person came, I learnt something more…it was to me free knowledge because this is all a new ball game to me. (Dave)
		Support to progress exercises with physiotherapy guidance.	If I've been… left on me own I'd be scratching my head… sometimes if [the physiotherapist] would say something to me – god, why didn't I think of that, you know. (Dave)

preconceptions of physiotherapy. Participants did not necessarily view the unfamiliar delivery method negatively, but some felt the lack of hands-on treatment meant ACTIV was not 'real' physiotherapy. George reported benefitting from ACTIV but did not recognise it as physiotherapy.

"The girl who came and saw me there, she was not a physio as such…. she never did any physio with me but showed me the pamphlets…and how many [exercises] I should do." (George).

Some participants perceived ACTIV as less effective due to the lack of hands-on physiotherapy; self-directed exercises were seen as unimportant and unlikely to be effective:

"…nothing beats the fact of a physio… coming to visit, because it's more 'hands on', this [ACTIV] it's not going to solve the problem because sitting at home doing your exercises without more input is not going to get you anywhere." (Jenny)

However, it was not a universal belief that physiotherapy needed to be face-to-face. The phone calls and regular text messages provided input that was personal and relevant without being intrusive.

"It was an ideal situation… one of the programmes was to pick out chocolate sultanas out of the bowl with the fingers, you know [to work on fine hand function], and the text… come through – 'hope you're not getting too fat' or something like that. (laughs)." (Jeff)

Jeff valued the freedom and autonomy he gained from regular, personalised physiotherapy. Many participants expressed satisfaction that ACTIV fitted in to their lives in a way they could control.

Table 3
Subthemes for Theme 3.

Theme	Subtheme	Example	Participant quote
Making progress	1. I can't, I can't, I can't	No longer being able to manage activities	When you're struggling with something sometimes you actually shut off, you feel like, 'I can't, I can't, I can't'. (Jeff)
		Social activity curtailed by the stroke	I had the ability before the stroke, but what I'm finding now quite difficult to handle is, I will say to my friends 'yes I'll go with you to such and such a thing', and then when the time comes, I have to let them down. (Sylvia)
	2. Things get in the way	External events making exercise very difficult	.it's why I wasn't able to do exercises, you know, we had so many engineers and things coming around testing things, drilling holes and…. that's time consuming, you know. (Bob)
		A health problem getting in the way of continuing exercise.	So, for start off I quite enjoyed it then you get the pain, […] when you get constant pain all the time it restricts you from exercise. I got less and less interested… I couldn't concentrate, the pain took it away. (Jack)
	3. Success matters	Acknowledging improvements boosts morale and encourages you	I found it very, very good, good back up good support, as I said I actually baked a banana cake just a wee while ago and some scones, now I haven't done baking for a long time. (Sylvia)
		Feeling no hope or expectation of success had the opposite effect	Interviewer: Was there some kind of plan for you to go back to bowls…? Oh yeah, yeah, I went back but I pulled out of the all the club stuff because I just be dead meat. *Interviewer: Do you feel like your bowling's got a lot worse and so it's not so fun anymore?* No, that's exactly right. (Dan)
	4. Weaving it in	An activity that started as therapy became enjoyable	… it's different patterns that type of thing [that were being used to progress rehabilitation] whereas I could say do a pair of booties in 4 hours [before the stroke], um now it sort of takes say 2 nights. *Interviewer: …. do you feel like that's a leisure activity for you?* Yeah, it's not an exercise. No, it's just leisure it's something I enjoy doing. (Jane)
		Phasing-out exercises, as functional activities became easier and consequently part of daily activity.	*Interviewer: So, can you tell me why you're not doing those exercises?* Because I didn't feel as though I want, need to do it. *Interviewer: So, you feel like they're too easy for you do you?* …No, with my walking stick I find, I think I'll be able to do more exercises. (Martin)
		A few repetitions of an exercise were fitted in to normal life	…sometimes when I'm at the bench preparing a meal, I will try to stand on one leg. (Sylvia)
	5. Keeping on, keeping on	Dogged determination, without much faith in the outcome.	*Interviewer:… so although you don't […] see how they're linked to those, [goals] why are you continuing with them?* Faint hope. (Keith)
		The strategy was often effective.	They were about right because there was an improvement. It was slow but there was an improvement. (Keith)

"…if someone is visiting occasionally and that constant contact you know, to me it worked really well…. if it [the text message] was right on teatime, I'd sort of just ignore it and then you know, look later." (Jane)

Despite some participants not recognising ACTIV as physiotherapy, almost all appreciated the ongoing contact, which is evident in the next theme.

3.5. Theme 2: There's somebody there

Almost all participants indicated that ACTIV made them feel they had not been left to struggle alone.

"…you feel as if you're in contact with somebody um, and so you're getting that support… emotional support as well, they [the texts] come through when you're feeling a bit down…so that would help sort of make you feel better and think, yeah there is somebody there." (Jane)

The programme offered someone they could relate to in a variety of ways. There were four subthemes, and each explores an aspect of the role the physiotherapist fulfilled. *'Encouraging me'*, explains the way the programme engendered determination or confidence to achieve. *'Get off your bottom'*, was the acknowledgement that regular reminders were necessary to keep them exercising. '*Someone who cares'*, expressed the importance of feeling that someone was taking notice and '*learning something new'* conveyed the value of gaining practical information to help themselves. Details of each subtheme are shown in Table 2.

3.6. Theme 3: Making progress

This theme has five subthemes. The first two subthemes relate to the distress participants felt when factors hampered their progress. *'I can't, I can't, I can't'*, articulated the frustration and bewilderment participants felt when unable to do things as before, and *'things get in the way'*, identified external factors that were perceived to slow progress. For example, some participants were in areas which suffered major floods and landslips during the study period. The stress and practical considerations during the aftermath limited exercise completion.

In contrast, the experience of success and retaining hope of progress kept people engaged in exercise. The other three subthemes were strategies participants had adopted to maintain progress.'*Success matters'* expressed that participants who perceived improvements as a result of ACTIV gained a boost to their morale, which encouraged them to go on. *'Weaving it in'* expresses participants reaching a threshold that allowed rehabilitation to be subsumed in living. *'Keeping on keeping on'* describes participants' decisions to continue exercising without giving themselves the choice to give up, employing dogged determination. Details of each subtheme are shown in Table 3.

3.7. Theme 4: What I really want

During face-to face visits the physiotherapists asked, 'what do you want to do most?' to elicit a meaningful goal and phone calls and text messages were used to re-focus attention on efforts to attain that goal. Consequently, it was a surprising finding that most participants could not recall their goal, a typical response was:

Interviewer: So as part of the programme you had something called 'what I want to do most'? Can you remember [what it was] ….?

"No, quite honestly." (John)

Most remembered in general terms and frequently mentioned the idea of continued improvement.

"Um, if I persevere, just perhaps next year, it might be better." (Sylvia)

"I was all the time looking for something better in my physiotherapy exercises that would take me a step up, so always looking for a new way to improve this hand…" (Dave)

Participants frequently mentioned returning to normal. One participant who did recall his desired activity admitted to manufacturing, 'what you want to do most' so it fitted the programme, to get what he really wanted:

"I deliberately picked the sport of cricket… I only have one goal; I want to get back fit and healthy and doing everything I used to do before… All I did was pick one aspect of that [returning to a previously enjoyed sport], coz they couldn't target the programme to an overall goal as unfocussed as that…" (Alan)

Most participants spoke with interest and enthusiasm about making small improvements but had no memory of the negotiated goal.

4. Discussion

Including remote interventions in a rehabilitation programme, may be a logical next step for physiotherapy. There has been a gradual move away from hands-on therapy, to an increased focus on restoration of function using task related training and exercise [18,19]. In neurological rehabilitation concerns have been expressed that manual techniques are not always effective [20] and that a greater emphasis on increased autonomy would benefit long term progress [21]. The provision of remote treatment may encourage this and the results of this study suggest this was acceptable to the majority of participants. The current study included participants with a broad range of characteristics including those for whom the intervention had not been helpful and who had not completed the programme. This increases the transferability of the results when considering people with stroke.

4.1. ACTIV was not what I call physio

Participants expressed their beliefs about what should constitute physiotherapy which may be formed early in the recovery period after stroke when physical help and support is necessary. During hospital-based rehabilitation, activity without supervision is frequently discouraged due to concerns about risk of falls and injury. This may lead to decreased patient confidence to increase their mobility once they get home [22]. The initial need for help can lead to the impression that hands-on treatment is always best. Our findings support this; many participants viewed remote assistance encouraging autonomy as a compromise. However, self-management strategies, which encourage the development of skills, and psychosocial factors like self-regulation and self-efficacy increase autonomy [23]. An intervention for people with stroke that explicitly promoted independence and supported self-management found improved self-efficacy at the end of the intervention and at three months follow up, when compared to a control group [24]. Physiotherapists may need to change the emphasis during inpatient rehabilitation and seek opportunities to promote patients' independent practice. This might help to reduce the belief that telerehabilitation is a poor alternative to 'proper' physiotherapy.

4.2. There's somebody there

The sense of a connection with the physiotherapist was very important to almost all participants. Even the participants who would have preferred more face-to face encounters still perceived the physiotherapists as empathetic and caring. This was a surprising finding in view of the limited personal contact they had with the physiotherapist, however the personalisation and regularity of the text messages seem to have built on the face-to-face contact to develop a therapeutic relationship. The authors of a study of therapeutic alliance in stroke rehabilitation support this view and emphasised the need to be concerned with connection and meaningful collaboration with patients [25]. Peiris, Taylor and Shields [26] go further, finding participants in a study of inpatient physiotherapy placed a higher value on caring and empathy of physiotherapists than on either the content or amount of physiotherapy. There is a growing body of research supporting a link between a good therapeutic relationship and improved outcomes [27,28]. It was encouraging to find that despite much of the contact being remote, physiotherapists were still able to retain a therapeutic connection.

4.3. Making progress

For many people, a stroke occurs amid a constellation of other health problems that increase with age. These comorbidities often slow progress [29], but for rehabilitation to be effective, it is important to help people engage in meaningful activity in daily life, despite their restrictions. Making progress appeared to be a critical factor in maintaining hope and participants reported a variety of strategies to support this. The regular and ongoing contact with physiotherapists was important to this process. Bright and colleagues [30] found that a sense of hope is a vital component in recovery after stroke, so therapists should carefully consider the content of information and the way it is delivered, to ensure it promotes hope.

Participants positively viewed the regularity of contact including practical information, care, and exercise reminders to help maintain engagement in the exercise programme. Ongoing brief interventions have similarly been shown to facilitate health-promoting behaviours in other populations. A recent RCT investigated the effect of adding four text-messages per week to usual care, for participants with coronary heart disease. The authors reported significant changes including a reduction in smoking and an increase in activity levels [31]. Findings from the ACTIV trial show ongoing support may help internalise strategies and reduce reliance on external prompts to stay active. However, the use of external prompts to assist in the development of intrinsic motivation for sustained engagement following programme completion is complex and requires further exploration in future research. The adoption of brief prompts to stay active delivered as text or phone message could happen in clinical practice now, with the widespread ownership of mobile phones.

4.4. What I really want

The phrase 'what do you want to do next' used in ACTIV was taken from the work done by Leach, Cornwell, Fleming and Haines [32] to encourage participants to select an activity they found motivating. Despite this, participants in our study struggled to recall this component, so this strategy was not wholly successful. There are several possible reasons for this. Long held ways of working are hard to change and physiotherapists have a history of using SMART (specific, measurable, achievable, relevant, and time-bound) goals, based on the belief that achievable goals increase motivation. In direct opposition to this idea, a recent critique of the use of this acronym found that 'challenging' was more relevant than 'achievable'; the difficulty or challenge of a goal was found to be positively and significantly associated with better outcomes [33]. However, a study by Lloyd, Roberts and Freeman [34] illustrates that physiotherapists often reported goal setting to be easier with patients who were 'realistic'. It was evident in the current study that goal setting had not elicited a memorable desired activity from most participants. A few had hidden their goals from the physiotherapist or dismissed a goal as unrealistic, with the physiotherapists' acquiescence. Another explanation is that some of the participants wanted to continue making progress and move towards their pre-stroke self, which they may not have shared during initial goal setting. In clinical practice, spending time listening to patients and accepting a goal, even if it feels non-specific and hard to measure, may improve engagement. Most participants did not appear to require a specific or measurable goal to retain engagement in ACTIV. Participants kept working on their programme, motivated by the prospect and experience of small improvements. We need to expand our measurement of these intangible improvements to capture what matters to people most.

4.5. Limitations

ACTIV was a programme delivered by physiotherapists. Physical goals that are outside the traditional scope of physiotherapy practice, such as driving, may not have been selected by participants. Interdisciplinary team goal setting may have allowed participants to select a goal more personally meaningful and hence more memorable. Our sample pool was limited to those who consented to participate in ACTIV. While every effort was made to remove barriers to participation, the experiences of people with stroke who do not engage with low-tech, or exercise-based rehabilitation, will not have been captured. This means that our sample may have represented those who are more engaged with rehabilitation or who are already open to technology solutions. Specific to this qualitative study, we

attempted to mitigate this by seeking diversity in the sample to capture the breadth of experiences. Finally, about 50% of participants who received ACTIV were interviewed, so the findings may not be representative of the entire sample.

5. Conclusion

Telerehabilitation after stroke is different to many people's expectation of physiotherapy. Once the difference is accepted, there is a range of valued roles a physiotherapist has in supporting and encouraging progress. Regular brief contacts appear to help people develop strategies to continue progress after rehabilitation services stop. Physiotherapists in a clinical setting should consider the finding that progress towards a more normal life seemed far more relevant to most people than goals set at the start of treatment.

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.physio.2023.05.001.

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