

Exploring community-dwelling stroke survivors' experiences of receiving a nurse-led theory-based stroke self-management programme

A qualitative study

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Abstract

International evidence-based guidelines recommend self-management support for stroke survivors to improve their health outcomes. We developed a 4-week nurse-led stroke self-management programme (SSMP) and conducted a randomised controlled trial to assess its effects. This paper reports the findings of a qualitative study nested within the randomised controlled trial to explore stroke survivors' experiences of SSMP participation. Semi-structured interviews were conducted with all adult participants who were clinically diagnosed with a first or recurrent ischaemic or haemorrhagic stroke, residing at home, communicable in Cantonese, had a Montreal Cognitive Assessment score below the second percentile, and participated in at least 1 SSMP session. All interviews were conducted in Cantonese, lasted approximately 45 minutes, and were audio-recorded. Interview data were transcribed verbatim and analysed thematically. Sixty-four stroke survivors (mean age 66.33 years, SD 12.34) were recruited, and 59 were interviewed via phone immediately after completion of SSMP. Three themes were derived. Overall, participants were satisfied with the SSMP. Their understanding of self-management was improved, and they recognised its importance in recovery. Their confidence in self-management was also enhanced through the use of multifaceted strategies. Suggestions were made to enhance their participation experiences, including increased home visits and group sessions, making group session attendance optional and arranging them more accessibly, meeting the survivors who shared their survival experiences in the videos, and access to the videos online. This study concurred that the SSMP enhanced stroke survivors' self-efficacy in self-management. Rearrangement of the programme format and enhancements in accessibility could be further examined to enable more effective stroke self-management.

Abbreviation: SSMP = stroke self-management programme.

Keywords: qualitative, recovery, self-efficacy, self-management, stroke

1. Introduction

Stroke is the second leading cause of death worldwide.^[1] The recovery journey after stroke can be chronic and complex due to stroke survivors' interrelated physical and psychosocial needs. Survivors must often adapt or readjust their lives and roles to live

well with daily challenges after stroke.^[2,3] In view of their diverse health needs, it is essential for survivors to possess adequate knowledge and skills to manage their health conditions.^[4] International evidence-based guidelines recommend the provision of self-management support to people with stroke to improve their health outcomes and enable efficient utilisation of healthcare services.^[5,6] Self-management refers to a person's ability to manage the medical, emotional and role consequences associated with living with a chronic condition.^[7] To perform effective self-management, one needs to learn and exercise core self-management skills, including goal setting, problem-solving, decision-making, resources utilisation, and communicating with healthcare professionals.^[7]

A meta-review of 13 systematic reviews involving 101 trials found that self-management support interventions were associated with significant improvements in stroke survivors' basic and extended activities of daily living and reduced poor outcomes such as dependence and death. Some support for the usefulness of problem-solving interventions in facilitating stroke survivors' community reintegration was also found.^[8] However, the interventions included in the studies in this meta-review embraced a wide range of strategies which may have been informed by different theoretical frameworks.^[8] Another systematic review examined the effects of stroke self-management programmes (SSMPs) with or without a theoretical premise.^[9] It additionally provided preliminary support for the importance of self-manage-

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Table 1**Overview of the 4-week nurse-led stroke self-management programme.**

Week	Session	Venue	Key contents
1	Individual visit (1.5 h)	Participant's home	<ul style="list-style-type: none"> • Conduct an individualised assessment. • Introduce self-management after stroke. • Establish a short-term goal of recovery and the related action plan. • View videos of stroke survival experience.
2	Group session (1.5 h)	A community centre	<ul style="list-style-type: none"> • Share pragmatic strategies adopted to manage daily challenges after stroke at home. • Encourage self-reflection and ventilate feelings among the group. • Explore alternative ways to better implement the action plans. • Practise core self-management skills. • View videos of stroke survival experience.
3	Follow-up phone call 1	–	<ul style="list-style-type: none"> • Review progress towards goal attainment. • Provide individualized feedback and positive reinforcement.
4	Follow-up phone call 2 Follow-up phone call 3	– –	<ul style="list-style-type: none"> • Encourage to continue, revise, or set a new short-term goal if needed.

ment interventions after stroke. A systematic review of 3 randomised controlled trials involving 306 community-dwelling stroke survivors further found that Bandura principles of self-efficacy was the most commonly used theoretical premise underpinning stroke SSMPs. The results showed that the provision of theory-based stroke SSMPs was potentially beneficial in enhancing survivors' self-efficacy and health-related quality of life.^[10]

The authors of this study developed a 4-week nurse-led stroke self-management programme (Table 1). The SSMP was aimed at enhancing stroke survivors' recovery after hospital discharge. The programme was underpinned by Bandura principles of self-efficacy and outcome expectation. It was delivered by a registered nurse and was implemented in Hong Kong. The SSMP consisted of 5 weekly sessions, including 1 individual home visit, followed by 1 group session at a community centre and 3 follow-up phone calls. All participants of the SSMP were given a workbook and a digital video disc (DVD) of 15 videos of other survivors' sharing of poststroke survival experiences. The workbook contained information about poststroke recovery and strategies to enhance self-efficacy and outcome expectation. The details of the SSMP have been described in the protocol.^[11]

A randomised controlled trial was conducted to assess the effects of the SSMP. The results showed that the programme was associated with significant improvements in survivors' self-efficacy, outcome expectation, and satisfaction with their performance of self-management behaviours.^[12] However, there is not much understanding in the literatures about the stroke survivors' satisfaction with the SSMP and how the programme addressed their health needs during their transition from the hospital to the community. This paper reports the findings of a qualitative study nested within the randomised controlled trial,^[12] which aimed to explore the experiences of participating in the SSMP, its most helpful components, perceived challenges in SSMP participation, and suggestions for enhancing the experience of SSMP participation from stroke survivors' perspectives.

2. Methods

2.1. Study design

A qualitative study with individual semi-structured interviews via phone was conducted.

2.2. Participants and setting

A total of 128 participants (64 in intervention and control groups respectively) were recruited in the randomised controlled trial.^[12] Participants were included if they were/had aged 18 years old or older, clinically diagnosed with a first or recurrent ischaemic or haemorrhagic stroke, residing at home, communicable in Cantonese, and a Montreal Cognitive Assessment score below the second percentile.^[13] Stroke survivors were excluded if they were diagnosed with a mental condition, had severe dysphasia, or had hearing problems that could not be corrected by hearing aids. The sample size ($n=128$) was calculated in order to detect a significant mean difference in self-efficacy between the 2 groups at 8 weeks after randomisation ($\alpha = 0.05$; $\beta = 0.80$) based on an estimated medium effect size (0.5) in self-efficacy in self-management.^[12] All participants in the intervention group who have participated in at least 1 session of the SSMP were included in this qualitative study.^[12]

2.3. Data collection

After consenting, eligible participants were individually interviewed via phone immediately following completion of the SSMP. A semi-structured interview guide was developed by the research team according to the concepts of self-management, and Bandura constructs of self-efficacy and outcome expectation.^[7,14,15] A research assistant invited each participant to share their experiences of participating in the SSMP, the programme components that they found most helpful, their changes in behaviours after participating in the programme, the challenges faced in participating in the programme, and suggestions for enhancing their experience of participation. They were also asked about their changes in level of confidence in managing their stroke after attending the programme, whether nurturing positive outcome expectations enhance their participation in self-management behaviours. All interviews were conducted in Cantonese, lasted approximately 45 minutes, and were audio-recorded and duplicated to avoid accidental data loss. Participants' demographic and clinical information, including age, gender, marital status, educational level, mobility and functional status, history of stroke, and past and current medical health and social histories, were also recorded.

2.4. Data analyses

The interview data were transcribed verbatim from the audio recordings by an independent research assistant and analysed thematically in consideration of the study aims. The 6 phases of thematic analysis outlined in Braun and Clarke were applied.^[16] Two independent researchers read the typed transcripts and developed initial codes based on the study aims, and according to the concepts of self-management, and Bandura constructs of self-efficacy and outcome expectation.^[7,14,15] They then grouped the codes into themes and subthemes. Theme names were carefully considered and refined to ensure that the concepts were best represented. Discrepancies in interpretation of the codes and themes were resolved by discussion among the 2 researchers.

2.5. Ethical considerations

The study was approved by the Human Research Ethics Committee of the affiliated university. All participants provided written informed consent before data collection. Data collected were anonymised, kept strictly confidential, and used for research purposes only. The study adhered to federal and institutional ethical standards, the Declaration of Helsinki, the ICH-GCP, and the Hong Kong Personal Data (Privacy) Ordinance.

3. Results

A total of 64 stroke survivors (mean age 66.33 years, SD 12.34) were recruited. Fifty-nine of them were interviewed. Three participants were lost to follow-up and 2 declined to be interviewed due to a lack of time. Among the 59 participants, 24 received all 5 sessions of the SSMP, 21 received 4 sessions (not attended the group session), and 19 received 3 sessions (not attended the group session and 1 follow-up phone call). Characteristics of the 64 study participants are summarised in the Table 2. Three themes were derived from the interview data.

3.1. Theme 1: improved understanding of self-management and its importance to recovery

Majority of participants, regardless of their age, revealed that they had not heard of the term “self-management” before joining the SSMP. They initially found this concept abstract and thought that the SSMP was not related to their health needs. Some even recalled that their priority needs after hospital discharge was to attend programmes that offered physical rehabilitation:

I did not really know what self-management was . . . I attended exercise programmes though . . . but my wife said every programme must be helpful in some way, so I joined. (Participant 18)

However, after joining the SSMP, participants learned more about self-management and its importance to their long-term recovery after stroke. One participant acknowledged the importance of self in his recovery process:

When the nurse asked me to think about strategies to clean my face using one [unaffected] arm, I found it strange. I thought this should be provided by the nurse . . . Later I understood that only I know how I feel the best, what I need, and what fits me the most. (Participant 24)

Table 2

Characteristics of the study participants (N = 64).

Characteristics	N (%)
Age, yr	
35 to 44	2 (3.13)
45 to 54	9 (14.06)
55 to 64	16 (25.00)
65 to 74	17 (26.56)
75 to 84	15 (23.44)
85 or above	5 (7.81)
Gender	
Male	39 (60.94)
Female	25 (39.06)
Marital status	
Single/divorced/widowed	15 (23.44)
Married	49 (76.56)
Education	
Primary or below	35 (54.69)
Secondary	22 (34.38)
Tertiary	7 (10.93)
Living condition	
Live alone	8 (12.50)
Living with family or friends	56 (87.50)
Employment	
Unemployed or retired	57 (89.06)
Employed	7 (10.94)
Type of stroke	
Ischemic	53 (82.81)
Hemorrhagic	11 (17.19)
Prior stroke	
First-ever	47 (73.44)
Recurrent	17 (26.56)
Mobility	
Walk unaided	25 (39.06)
Walk with a stick	31 (48.44)
Walk with a walking frame	8 (12.50)
Modified Rankin scale score	
0 to 1	21 (32.81)
2	23 (35.94)
3 to 4	20 (31.25)

Some participants explained how self-management was related to their recovery:

The follow-up appointments at the hospital will end one day . . . my family cannot take care of me forever. I must help myself. (Participant 02)

To deal with my low mood, to make myself happy . . . it is a process and requires skills to look into my problems, see what can be done, and try it to see if it helps. These skills need to be learnt . . . I haven't thought about it before. (Participant 17)

Some participants related the learning of core self-management skills, such as setting goals and action plans, to enabling them to tackle their daily health needs more systematically. They also attributed their perseverance to sustain their hard work of rehabilitation to the goals and action plans set during the SSMP:

I found it hard and was demotivated to do exercise . . . when seeing no improvement, I was even more annoyed and hated my [affected] leg . . . Setting a goal drives me to do it, at least I am happy to see myself keep going. (Participant 42)

When asked about their satisfaction with the SSMP, participants overall enjoyed joining the SSMP and regarded their experience of participation as rewarding and satisfactory. They commented that the SSMP was comprehensive in addressing their health needs after stroke. They also appreciated that the SSMP was offered by a healthcare professional immediately after their discharge from hospital, which was timely to support their health needs:

My stroke is mild . . . but there are still some differences in me from 'normal' [before stroke]. I need someone, preferably an expert, to tell me how to face or even 'discard' these differences in person instead of exploring them myself. (Participant 37)

My regular medical appointment will be a few months later but I can attend this programme just a few days after my discharge. This immediate support soothes my anxiety. (Participant 50).

3.2. Theme 2: enhanced confidence in self-management through multifaceted strategies

When asked about their experiences regarding the strategies adopted in the SSMP to enhance confidence, including videos, home visit by the nurse, and the group session at the community centre, the participants consistently supported that enhancing their confidence was important to promote their recovery after stroke. Nearly all participants greatly appreciated the opportunities to view videos of other survivors' sharing of poststroke survival experiences and learn from them. They regarded these videos as the most helpful component of the SSMP in enhancing their confidence in managing their stroke:

I enjoy viewing these videos . . . I know that I'm not alone. I am just like others. Knowing that they can do it, I feel that I can also do it! (Participant 10)

These people's experiences give me ideas about what I can do. I always think about how they went through their hard times when I am having mine. Their words support me to go on. (Participant 22)

Some participants elaborated that they were frustrated about their prognosis after stroke and felt that they had lost control of their own lives. Although they were not sure about the extent of their recovery, viewing the videos enabled them to have the confidence to do well in their daily life roles and activities. Furthermore, some participants appreciated the part of the videos with words of encouragement from the survivors. They regarded them as helpful to counteract the depressing voices in their own minds saying "I cannot do it" or "I do not see any hope of progression [in health status]" and instilled in them the energy to continue rehabilitation. One participant shared:

I cannot remember all of them in the videos . . . but I remember that one survivor said 'Be confident in yourself! How you think determines the level of your attainment'. It became my motto. One statement like that is enough. (Participant 02)

Some participants added that these videos were particularly helpful during the time when they were not physically fit enough to go out and meet other survivors. Moreover, they were able to repeatedly view the videos whenever they wished.

Besides the videos, the majority of the participants welcomed the home visit. They appreciated the opportunity to discuss their individual care regimens with a nurse, which was often not available to survivors, especially those with mild stroke, after hospital discharge:

My son searched a lot of information on the Internet . . . regarding exercise, diet, medications . . . but this information is for all people. I need healthcare professionals' advice on my own condition. (Participant 44)

Furthermore, some participants verbalised that the nurse not only clarified their queries about stroke care but also encouraged them to ventilate their feelings and reinforced their incremental achievements. It provided them with a sense of support and enhanced their confidence in managing their condition during their transition to home:

She [the nurse] checked on my health [condition], made suggestions about my home environment to better fit my arm training, and asked about how I feel . . . I feel cared for and comforted. (Participant 07)

She [the nurse] is great in seeing my improvements, which even I don't notice. People like me who have some 'differences' [limitations after stroke] really need someone to tell them 'I can still do something'. (Participant 08)

When asked about the experience of attending the group session at the community centre, the majority of the participants found that this session provided a helpful experience. It enabled them to meet, interact, and share with the group participants, who had the same condition. Participants described it as allowing them to know more about others' experiences, difficulties, or concerns after returning home, which was often not available in usual stroke care after discharge:

Only people with the same problem [stroke] know what difficulties we are having . . . I talk about my problems, they talk about theirs . . . we can talk freely as we have a unique common thing [stroke], though we are meeting for the first time. (Participant 18)

Participants recalled that in the group session, they would share practical tips about managing their daily challenges due to their physical limitations. They found these tips motivational as it inspired them to think about new but simple, home-enabled ways to address their recovery needs:

One man [participant] said he trained his finger movements by counting dollar notes. He said money gave him energy and this training made him happy . . . I did this also . . . this training cost nothing but was effective. (Participant 37)

Majority of the participants supported the importance of learning from others' experiences and having peer support as in the group session.

Some participants further mentioned that they enjoyed reading excerpts of statements of encouragement from other survivors in the workbook. They described that these statements supported them to continue their rehabilitation when they felt lonely, tired, or lost.

3.3. Theme 3: suggestions to enhance positive experiences of participation

When asked about suggestions to enhance their experiences of participation in the SSMP, participants commented on the format and accessibility of the programme. Majority of the participants suggested a longer duration of the programme, particularly more individual home visits and group sessions. They would like to have more home-based follow-up consultations with the nurse to check on their rehabilitation progress. Similarly, they would appreciate more group sessions to see other survivors' progress, and receive ongoing peer support and motivation to work towards their goal of recovery:

More sessions and longer duration would be better. I want to see the nurse more so she [nurse] can keep assessing my condition . . . If I know the nurse will visit me, I will have the energy to do more exercise. (Participant 23)

I am happy to see others [with stroke] in the group. We encourage each other . . . the nurse asked us to set a one-week goal. It would be good if we could see how we all do after one week. (Participant 52)

On the contrary, some participants suggested that attendance of the group session could be optional. It is because they were embarrassed and felt uncomfortable when others looked at their "deformed" arm and leg after stroke. They were also not confident in talking or sharing with others whom they were not familiar with. They would have less pressure if they could choose whether to attend the session without missing any key information of the SSMP:

I am not a person who likes to talk with others. I will be nervous if you ask me to talk about myself in front of others . . . I can tell you that I am even more nervous after stroke. I think I can improve by just listening to what to do. (Participant 20)

Other participants who refused to attend the group session commented that the venue for it was too far away from their home. Those who attended the session said that they required their family members to travel with them to the venue and had to deal with the transportation problem:

I know going out is good, but we need to figure out how to take the transport . . . whether go by bus or by taxi? Taxi costs much more money . . . Using a walking stick or wheelchair? . . . just going out of my room by the wheelchair can be a big problem. (Participant 46)

In addition, several participants revealed that they doubted their ability to recover after viewing the videos of other survivors' survival experiences. They elaborated that the survivors looked well in the videos, and they had difficulty in comparing their current situations with the survivors', such as self-care ability,

availability of social support, financial situation, or educational background:

I remember the videos, those survivors . . . Some had good family support. Some were younger than me. I think my stroke is worse than theirs . . . my recovery is not that easy. (Participant 35)

These participants suggested to have more information about those survivors in the videos, for example, their stroke history and condition at the time of stroke. Some would appreciate the opportunity to meet these survivors to ask them how they went through the tough times of rehabilitation in greater detail.

Furthermore, some participants appreciated the flexibility of the follow-up phone calls. They helped save time and money needed to travel to a venue for consultation. The phone calls reminded and supported participants to pursue their goals and action plans. Some participants, however, found the phone calls not very helpful as they were not able to talk much with the nurse. They wanted to have a closer relationship with the nurse. Some also said they had difficulty in receiving the calls with 1 hand:

People like me, with 'one hand', need more time to take my phone out and press the key to receive the call . . . it is clumsy. Also, I can hear the nurse's voice only, which is too distant, I am not quite interested in talking. (Participant 01)

A few participants further commented that the use of DVD players or computers limited their immediate access to the videos as they were not familiar with using these devices and required their family members' help. They suggested more convenient access to videos, such as by making them available on a website.

Overall, regarding the workbook, participants found its readability appropriate. There were a few participants who had not read the workbook as they did not know how to read. Some participants suggested to have more examples related to home-based exercise, the management of depressed moods, and community resources for easier access to necessary information:

This programme is about self-management . . . I know it is important, but I still need to know how to manage, for example, what food to eat, where and who to seek help from. (Participant 17)

4. Discussion

This paper reports the findings of a nested qualitative study aimed at exploring community-dwelling stroke survivors' experiences of participating in a nurse-led SSMP. The findings showed that participants improved their understanding of self-management after joining the SSMP. Their confidence in self-management was enhanced with the use of multifaceted strategies in the programme. Overall, participants were satisfied with the SSMP and found it comprehensive and helpful in addressing their health needs. They made suggestions on the programme format and accessibility to enhance their experiences of participation. These included increasing the number of home visits and group sessions, making attendance of group sessions optional and arranging them in a more accessible venue, meeting survivors who shared their survival experiences in the videos, and accessing the videos on the Internet. Some appreciated the provision of follow-up phone calls while others suggested more face-to-face contact with the nurse.

Majority of the study participants were unfamiliar with the term “self-management” before joining the SSMP. This finding is consistent with a qualitative study of 13 stroke survivors in the UK which examined survivors’ experiences of receiving a SSMP.^[17] Participants’ unfamiliarity may be because self-management support is a new concept for stroke survivors compared with people with other chronic conditions, such as diabetes or arthritis, for whom it has been introduced for decades.^[18,19] However, it is encouraging that participants knew more about self-management and recognised its importance in their recovery after joining the SSMP. Majority of the participants agreed that they were responsible for their health. Participants’ well-acceptance may be attributed to the influence of the Chinese philosophy that people have to be responsible for their own issues, including health. A study which examined the effects of a chronic disease SSMP in Chinese older adults also reported the belief of “self-discipline” among these adults.^[20] These beliefs are consistent with the emphasis of “self” in the notion of self-management.

It is important to note that participants appreciated the provision of self-management support immediately after their discharge from the hospital. They regarded it as timely and helpful in relieving their anxiety during their transition to home. A qualitative study of 16 stroke survivors in the Netherlands also found that survivors were not ready to self-manage postdischarge and required support during this period.^[21] Indeed, there are increasing studies which explore the opportunities of introducing self-management in acute settings and potential benefits in patient outcomes have been reported.^[22] Recognising the importance of self-management, future studies may explore the integration of self-management prior to survivors’ discharge from hospital to get survivors familiar with self-management at an earlier stage.

Some participants mentioned the benefits of setting goals and action plans in motivating them to pursue their poststroke rehabilitation. This was consistent with previous studies and supported that participants learned to exercise core self-management skills, particularly goal setting and action planning.^[23] It may be attributed to the emphasis towards setting weekly goals of recovery and reviewing the attainment of goals and action plans throughout the SSMP. Other skills, including decision-making, problem solving, resources utilisation, communicating with healthcare professionals, and enhancing positive outcome expectation were comparatively mentioned less seldom by participants. Further studies may explore strategies to enhance participants’ understanding and utilisation of these skills to promote their self-management. On the other hand, some participants suggested having more examples of how to integrate pragmatic tips of rehabilitation into their daily life for better self-management. A descriptive study of 10 stroke survivors reported that doing everyday activities provided survivors with an optimal platform to develop self-management skills.^[24] Integration of more information on ways to incorporate self-management into daily life or personally valued activities into future SSMPs would be helpful.

The SSMP is underpinned by Bandura constructs of self-efficacy and outcome expectation. The findings of this study showed that the multifaceted strategies adopted in the SSMP were effective in enhancing participants’ self-efficacy. First, participants highly appreciated the individual home visit by the nurse who supported their establishment of goals and action plans of recovery. The nurse also helped them ventilate their feelings and provided positive reinforcement. This resembled the provision of mastery experience and verbal persuasion in Bandura 4 sources of information of self-efficacy.^[14,15] Second, the use of videos showing other survivors’

sharing of survival experience is an innovative strategy to enhance participants’ self-efficacy by offering vicarious or “modelling” experiences.^[14] It is particularly helpful for stroke survivors that refrain from travelling to other venues to meet others. Third, the group session, follow-up phone calls, and the workbook provided verbal persuasion or positive reinforcement and vicarious experiences. It should be noted that the reinterpretation of physical or emotional symptoms, which is one of the sources of information of self-efficacy, and outcome expectation were seldom mentioned by participants. Further examination of effective strategies to address these principles would be beneficial to enhance survivors’ confidence in self-management.

It is important to address that the videos of survival experience sharing caused some participants to doubt their ability to recover. The effects of vicarious or “modelling” experiences rely on the extent of similarities between the individual and the “model”.^[14] The 15 stroke survivors in the videos have different ages, number of years after stroke onset, stroke severity, socioeconomic status, and cultural backgrounds. Participants may think that the experiences in the videos are not applicable to their situations due to these heterogeneities. More importantly, one’s self-efficacy may be negatively impacted due to association with a wrong “model”.^[14] In order to address this, when viewing the videos, the SSMP facilitator is suggested to acknowledge the uniqueness of each stroke survivor’s recovery journey while highlighting participants’ common needs in exercising self-management skills. The facilitator may also identify key factors for enhancing self-management from the videos, such as hard work, persistence, and perseverance. This would enable more appropriate associations between participants and the role models, ensuring appropriate engagement in self-management behaviours.^[25]

Some participants preferred more individual discussions with the nurse and focused discussions on their health conditions. Future implementation of the SSMP may take these suggestions into consideration. Furthermore, some participants were hesitant or felt uneasy when sharing experiences in the group session. However, these complaints were not reported in previous studies examining the effects of stroke SSMPs.^[26–29] Their reluctance may be because Chinese people may not be used to sharing with groups of people whom they met for the first time. On the other hand, consistent with previous studies,^[27,29,30] some participants were concerned about transportation and mobility issues, causing them to be absent from the group session. Consequently, it is understandable that some participants suggested optional attendance of the group sessions. An increasing number of studies found potential benefits of delivering stroke SSMPs via teleconferencing or online.^[31–33] These modes of delivery may address transportation and mobility problems. However, special attention is needed to enable the provision of vicarious experiences when face-to-face delivery is replaced by virtual mode.

Our study has some limitations. Firstly, the sample size was relatively small which was limited to those who had participated in the SSMP. Secondly, approximately half of the participants did not complete all SSMP sessions which may influence their perception of the SSMP.

5. Conclusions

This study found that participants were generally satisfied with the SSMP. They improved their understanding of self-management and recognised its importance after joining the programme. The findings showed that the multifaceted strategies adopted in

the SSMP were helpful in enhancing participants' self-efficacy. Enhancement in the programme format and accessibility would be worthwhile to promote stroke survivors' self-management and hence, recovery.

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Author contributions

SHSL and JPCC designed the study. SHSL contributed to the conduct of the study, collected and interpreted the data, and wrote the manuscript. SHSL and JPCC reviewed and commented on the manuscript. All authors read and approved the final manuscript.

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