

BMJ Open Perceptions of participants and organisers of a social prescribing programme for hospital staff through horticulture (SP4S-H) in the community hospitals in Singapore: a qualitative study

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ABSTRACT

Objectives Hospital workers face multiple biopsychosocial stressors in the course of their work, which could potentially be addressed by social prescribing of horticultural activities. However, the effectiveness of such interventions has not been evaluated. We conducted a qualitative study to understand the perceptions of participants and organisers of a horticulture-based social prescribing intervention for staff (SP4S-H) in three community hospitals in Singapore.

Design The RE-AIM Planning and Evaluation Framework was used to develop our semistructured interview guides and guided our thematic analysis. In-depth interviews were conducted with subsequent transcribing, coding and iterative analysis until thematic saturation was reached.

Setting Three community hospitals in Singapore, between May 2022 and June 2024.

Participants 26 hospital staff.

Results SP4S-H was perceived to have a positive impact on staff, including increasing their knowledge on horticulture, team bonding, positive emotions and self-help skills. Barriers to participation included participants preferring not to spend time outside working hours (ie, lunch hours) for SP4S-H or attending physical meetings. Appealing to the interest of staff, overcoming barriers in their attendance, organising the events and improving the working culture of participants were found to influence the reach, implementation and sustainability of SP4S-H.

Conclusion SP4S-H was perceived to be beneficial by hospital workers in improving social connectedness and their ability to cope with stress. The importance of having the support of senior management, adequacy of resources and deliberate staff engagement in rolling out this initiative cannot be underestimated.

INTRODUCTION

Healthcare workers (HCW) face numerous challenges worldwide, especially those working in hospitals. Many have a high patient workload and long working hours.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This research explored the perceptions of Asian healthcare workers at rehabilitation hospitals towards a horticultural-based social prescribing programme by approaching all organisers and participants of this programme for participation in this study.
- ⇒ The study team has sufficient credentials in qualitative research and social prescribing to conduct the research and exercise sufficient rigour in iterative analysis culminating in thematic saturation which is tested through member checking.
- ⇒ The limitations of this study include the fact that it was conducted on staff belonging to the eastern health cluster of community hospitals in Singapore, and many physicians and nurses were unable to participate in both the programme and interviews.
- ⇒ Many participants were also unable to participate in the final competition, and thus we were not able to delve deeper into various staff members' perceptions of the horticultural competition.
- ⇒ Furthermore, as organisers tended to work in silos at their respective hospitals, they were only able to provide insights based on their limited understanding of how horticulture-based social prescribing for staff was adopted by other sites.

Some face threats of litigation, verbal and physical abuse from patients, their family and the public.¹ This phenomenon worsened during the COVID-19 pandemic.^{2–4} There were reports of strikes in some countries⁵ and high HCW resignation rates in others, given their diminished psychosocial well-being and high burnout rates.⁶ Thus, there is an urgent need to address the work conditions, a social determinant of health,⁷ for these susceptible workers.⁸

Social prescribing (SP)⁹ can be a possible solution to improve psychosocial well-being. Defined as a holistic, person-centred and community-based approach to health and well-being,¹⁰ SP aims to identify health-related social needs and connect individuals to non-clinical community-based services, through the co-production of a non-medical prescription. There is emerging evidence to support the use of SP in improving social participation and well-being in the elderly.¹¹ As SP is usually provided to patients, there is a lack of current literature supporting its use in hospital staff.

Many workplace interventions have previously shown to improve well-being, resilience and reduced burnout in HCWs.¹² These include organisation-focused (eg, reducing workload, job-crafting opportunities) and individual-focused interventions (eg, yoga, mindfulness sessions, massage chairs). Although many studies have demonstrated horticulture's effectiveness in improving the quality of life, cognitive and physical health of older adults in long-term care settings,^{13–16} none have studied the impact of horticulture on hospital workers. As there are existing artificially created spaces such as walkways to house greenery¹⁷ in the hospitals, these assets¹⁸ could be tapped on to create a social prescription for them.

In Singapore, community hospitals provide rehabilitative and subacute care for patients discharged from acute hospitals. Patients are cared for by multidisciplinary teams consisting of doctors, nurses, therapists, dieticians, social workers, pharmacists and well-being coordinators (akin to link workers of the SP initiative in the National Health System of England). In 2022, the senior management of SingHealth Community Hospitals (SCH) envisioned SP for staff to help them cope with work stressors during the COVID-19 pandemic when there are frequent changes to workplace restrictions (eg, reduced group sizes for meals). A cross-departmental workgroup polled the staff on what potential 'social prescriptions' would appeal to their liking. Horticulture was identified as a key area of interest among many staff. A horticulture-based SP for staff (SP4S-H) programme was conducted between May and August 2022. It included the formation of horticultural interest groups, the involvement of staff to decorate individually assigned air plants and staff participation in a best-decorated air plant competition at the end of 4 months. All hospital staff members were invited via email to sign up for SP4S-H.

This was the first time SP4S-H was rolled out in SCH. However, much remains unknown about its potential benefits, side effects, sustainability and overall reception by all stakeholders. It is therefore important to explore the perceptions of both organisers and participants of SP4S-H, so that deficits in this programme can be addressed and good practices can be continued in future iterations.

METHODS

Design and setting

We conducted a qualitative study to understand perceptions of participants and programme implementers

towards SP4S-H. This study serves to inform the senior management about the perceived benefits, barriers and enablers in implementing SP4S-H and guide future programme iterations.

This study was conducted in SCH between May 2022 and June 2024. SCH, being the largest cluster of community hospitals in Singapore, comprises Sengkang Community Hospital, Bright Vision Hospital and Outram Community Hospital, which hold 1165 beds in total.

SP4S-H interventions

There were three formal sessions in SP4S-H. The first session was a virtual workshop where a professional horticulturist was invited to provide a 45-minute sharing session on air plants. Topics covered include identifying parts of the air plant, growth and maintenance of the air plant and basic troubleshooting of horticultural problems. There was a rerun 3 months later for staff who were unable to attend the initial session. A month after the first session, the horticulturist was invited to each of the three hospitals for a 45-minute live demonstration on decorating office spaces with air plants and constructing a terrarium. During this second session, participants were supplied with air plants and decorative ornaments for the activity. The number of participants for each session ranges from 10 to 60. Thereafter, participants were encouraged to form horticultural special interest groups (SIGs) within their own worksite to support one another's horticultural efforts. Designated green areas were also identified for participants to participate in their horticultural activities. Finally, SP4S-H culminated in a competition as the third and final session for the best decorated air plant through online polling of photographs posted on SCH's corporate social platform. Thereafter, participants were encouraged to maintain their air plants and green areas and share best horticultural practices within their own SIGs either virtually or face to face.

Research participants

A convenience sampling approach was employed due to the small pool of potential interviewees. All participants and organisers of the SP4S-H programme were invited via email to participate in this study and were informed that programme evaluation was the focus of this research.

Data collection

We conducted indepth interviews (IDI) in English, either face to face or via a virtual platform, depending on the participants' preferences. A semistructured interview guide was developed based on the RE-AIM Planning and Evaluation Framework.¹⁹ RE-AIM is an example of an integrated framework which systematically assesses new service improvement programmes in a wide range of health, education and community settings. It specifically reviews the reach, effectiveness, adoption, implementation and maintenance of new programmes.

The questions were first tested on two staff members before formal implementation and were subsequently

modified based on the interview findings. The interview guide can be found in online supplemental documents 1, while the checklist for the consolidated criteria for reporting qualitative studies can be found in online supplemental documents 2.

Participants were encouraged to speak freely and raise issues important to them. Each interview lasted around 20–90 min and was audio-recorded. Field notes were also recorded. Anonymity was maintained by assigning participants with a unique serial number. The interviews continued until thematic saturation was reached. All interviews were transcribed verbatim and random samples were checked against the field notes for accuracy.

Data analysis

Data analysis was guided by the RE-AIM framework, and the NVivo software (V.14) was used in the analysis. The evaluation of SP4S-H was planned prior to its implementation. Details of horticultural activities were shared with the staff up to 3 months before its implementation so that staff could set aside time for the sessions. As the study team were also employees, they were aware of the components of the intervention, and this helped them to design interview questions. Data collected were thematically analysed on an ongoing basis using Braun and Clarke's six steps of thematic analysis.²⁰ A combined deductive and inductive analysis was used. The coders familiarised themselves with the data and generated predefined categories of themes using the five constructs in the RE-AIM framework. They then constantly compared the interview data with the emerging categories and searched for new themes when the data did not fit into predefined categories. Key conceptual categories were constantly refined until saturation of categories occurred. The results were emailed to all participants for member checking, and they all agreed on the final themes and subthemes. Finally, a concise summary of the programme evaluation was generated through the consolidation of the themes. Demographic information of the interviewees (eg, age, gender, ethnicity), profession and their roles in the programme were obtained.

Two experienced qualitative researchers (WPYA, MHT) interviewed the participants, independently coded the data and compared the codes for agreement to achieve inter-rater reliability. A third coder (SYSS) arbitrated any disagreements. WPYA is a family physician with experience caring for patients in ambulatory, inpatient and home settings, as well as for staff in an inhouse clinic. He conducts regular training for lay workers in SP for patients in SCH. MHT is a research officer with a degree in sociology and possesses rich experience in conducting qualitative interviews and mixed method analysis in the healthcare sector. SYSS is a research fellow who possesses a PhD in public health and is well-versed with mixed methods research and programme evaluation. Both MHT and SYSS were key investigators in national and cluster-wide health and social research, including the one on SP. The three researchers, programme participants and

programme organisers were employed by SCH, and the research participants were notified of the purpose of this study during the informed consent process.

Reflexivity

The investigators engaged in reflexivity by constantly reflecting about the influence of their work experiences on note-taking during interviews, audio transcription, coding and analysis. While their backgrounds enhanced their understanding of SP as a whole, they did not let that background shape their conclusions—instead, they used open questions, asked about both positive and negative aspects of SP4S-H and relied strictly on the quotes for analysis.

Patient and public involvement

Patients and/or the public were not involved in the design, conduct, reporting or dissemination plans of this research.

RESULTS

Interviewees' characteristics

26 IDIs were conducted—25 of them were interviewed via Zoom at their workplace, and one was at home when interviewed via Zoom. There was no one else present during the interviews besides our study team and the interviewees. Most participants were women (80.8%), below 50 years of age (76.8%) and Chinese (80.8%). Most were administrators (46.2%) and worked in the same profession for 5 years and below (61.5%). 20 interviewees were SP4S-H participants (76.9%) and six were programme organisers (23.1%). Most participants did not participate in the final horticultural competition (80%). Table 1 summarises the characteristics of the interviewees. There were no drop-outs or repeated interviews.

Of the seven staff that declined the interviews, four were uncomfortable with research interviews and three

Table 1 Baseline characteristics of interviewees

All interviewees		n (N=26)	Proportion (%)
Gender	Male	5	19.2
	Female	21	80.8
Years of service in current setting	≤ 5 years	16	61.5
	6–10 years	8	30.8
	≥ 11 years	2	7.7
Role in programme	Organisers	6	23.1
	Participants	20	76.2
SP4S-H participants		n (N=20)	Proportion (%)
Status of completion in competition	Competed	4	20
	Did not compete	16	80
SP4S-H, horticulture-based social prescribing for staff.			

cited conflicts with their schedules. Two were programme organisers, while the rest were participants.

Themes

The main themes and the supporting quotes are illustrated in the online supplemental table using the RE-AIM framework.

Reach

Overall, our study suggests the presence of internal and external influences behind staff's decision to participate in SP4S-H. For internal factors, many felt that staff interest in greenery plays a large part.

ID 19: Personally I like green as well. So I thought, this is something that's interesting, that erm.... A company would organise for employees. So yeah, I joined because of that.

Other interviewees felt that SP4S-H-related activities may infringe on one's personal space and time, as some introverted staff may not attend physical meetings, while others may not want to spend time outside working hours for SP4S-H.

ID 26: I was thinking hybrid mode will be good so for example like some of it we run through Zoom, some of it you run through face to face, so ... it's not all the time they like interaction. Is not all the staff they really enjoy doing all these things with their colleagues (lah). So, I think Hybrid mode will be good, not only for how you run but also people type. Some of them might enjoy more of physical events.

Notwithstanding external influences, some opined that leaders play an important role in disseminating information to staff and even encouraging team sport.

ID 24: To be honest, I think can just blast out (leh) to our bosses, so the bosses can like cascade down in our group chats because I think the last terrarium one had a lot of traction, like they had like 2 sessions and they were all fully booked yeah. Yeah. I think a lot of people were quite excited (lah). Yeah.

Perceived effects

SP4S-H was perceived to be effective in multiple dimensions by the participants. This includes perceptions of improving staff knowledge on horticulture, livening up their workplace, bringing them delight and improving team bonding and collaboration.

ID 14: Hmm, after participating how I feel ah. Well, as I mentioned just now, it leads to like, oh, this is a thing that sometimes think of it can join together with my this plant I can bring it home, and from home I can expand it, you know. Ah. So it [the plant] sort of like a bit de-stress out from something that ah though, is from my workplace..., so stressful, I had to do like clean up patient and all these things. But this thing brings me a bit of, I will say the delight la,

is something like though it's not, cannot eat, but it's something like delights me la.

However, some interviewees reported disconnecting from fellow SP4S-H teammates after the programme ended.

ID 22: Why is it that I don't mix with them? It just so happen. I mean we talk, pass by, sometimes we see each other. We say, "Hi, how are you and your plant ah? Wow, your plant is still..." you know, that's all. You know, all of us are busy with our own work, you know, and our own activities.

Many mentioned that SP4S-H may not ultimately help them address all of life's challenges.

ID 17: I should say... maybe [horticulture activities cannot help to address life's challenges] ... At that point of time la...Because after that, you forget you put it behind your head it already, then you have to face the bullet again, and face your life again lah.

Adoption

Most interviewees expressed that there was adequate support from leaders to roll out SP4S-H.

ID 15: Hmm [pause] I thought [there was adequate support from senior management and heads of departments], It's not bad, because there's a group of committees planning, and then they have the sufficient budget to actually engage a proper trainer to do all this, so I thought its quite, it's quite sufficient lah.

They were not aware of any differences in SP4S-H's implementation across sites.

Implementation

Some interviewees felt that there are certain requirements to roll out SP4S-H in the hospitals. These include resources such as funds, manpower, logistics and accommodation to participants' preferences and expectations (eg, timing of the event).

ID 1: ...I guess one challenge would be to streamline the type of, um, activity we want, um, to, to plan for the staff because, like, horticulture is one aspect of what I mentioned earlier, that is based on informal ground sentiments that people enjoy this, right, but moving forward, like there is so many different activities that we could engage staff with. Uh, I think the challenge is like, choosing one theme, and then, like, uh, uh, like, uh like going deep, like deep diving with that theme to engage staff through that.

Some interviewees stated that as the objectives were clear, no adaptation or contingency plans were required.

ID 10: Erm in terms of planning, there's no contingency plan. But we always know that what is our objectives, if anything, that we think we can't roll out because of whatever reason there's always a quick

idea, you know. How should we overcome these and replace this. But in terms of the planning ones, will be when we actually came up with the whole entire programmes, on how we want to do this social prescribing for staff, there, there wasn't a corner to say a contingency plan in case, the above, you know, yeah. Fails. We don't, because when we do that we know that somehow we can carry it out, because all this programme are quite safe programme, under I I during that time in the that kind of conditions quite safe.

Maintenance

Interviewees mentioned that continued staff recruitment into SP4S-H requires multiple modes of engagement (eg, using progress reports, testimonials, superiors' support for staff to attend events). This implies that some level of perseverance is required.

ID 1: I think praise reports will help, testimonials from people who benefited from it, um uh [pause] Maybe like summary, project summary to show what has happened in the past one year of social prescribing for staff to tell people who have not heard of it that, hey, this is happening. Maybe like, maybe like, um, uh, like, staff reps from each department being sent for a different, uh, activities. So, for example, like, like during townhall right? You see, representatives from each department coming in because, uh they are, they were volunteered by their HOD right? So perhaps, like, if we could start this like, ball rolling, then eventually, people who find it interesting, they would sign up on their own accord, yeah.

However, interviewees opined that staff autonomy regarding their decision to attend SP4S-H activities should still be respected.

Contextual considerations

On a personal note, some interviewees believe that staff may not look to the workplace for social support as they may have existing coping mechanisms to deal with non-work-related challenges.

ID 14: I think I don't need my company to do any social support for me. Okay? Because it's my personal life. I choose it- I have to choose it myself, I don't think so I want to rely so much on outside people to do- give me this support, because this support is, you yourself have to go and find out. [laughs] You get what I mean or not? Uh. Unless I come with any troubles or issues that I think I need to address it to somebody that can resolve this issue, or either implement or do something about it.

Nonetheless, interviewees still felt that there was a need for a caring culture within the workplace so that subsequent programmes promoting well-being would be well-received.

ID 1: Yeah, then there's like the balance between, like giving that time. And then the staff just, you know, doing non-wellbeing related things, you know, I think it really requires a lot of culture building. Yeah. Like, like um, how comfortable people are in talking about activities that are, uh, specific to staff well-being. Yeah, because [pause] like it could be a taboo, you know, I'm not sure if it is here like, whereby if I say that oh, I'm gonna... I'm gonna go take the afternoon to go for a nature walk, you know, like sometimes we are a bit embarrassed to say it, because we are not sure if that's socially acceptable while the rest of your team are like, like, like slogging off [laughs] so I guess, like, it's a whole culture thing that we will need time to build up.

DISCUSSION

This research examines the perceptions of organisers and staff towards a horticulture-based SP programme conducted in three community hospitals in Singapore. Participants reported experiencing improvements in mental health, well-being, community connectedness (which is the conceptual intent of SP by international experts in Muhl *et al*'s paper)¹⁰ and the ability to cope with stress better (eg, by setting aside time to slow down and care for plants). Indeed, Toyoda *et al*²¹ demonstrated that frequently caring for and looking at an indoor plant in the workplace setting led to an improvement in the anxiety scores of employees, although this was not conducted in a healthcare setting. While SP4S-H's perceived effects may be short-lived, having the programme in place conveys the message to staff that the organisation was invested in the well-being of their staff. This sentiment is echoed by a participant (ID 1) who felt that having representatives recount positive testimonials about the SP programme would influence other staff to participate and glean similar benefits for their well-being (See Themes – Maintenance).

The organisers attributed the ease of programme adoption to the following factors: (1) assessment of staffs' interests prior to programme launch, (2) the straightforward nature of the programmes and (3) overcoming relevant barriers (eg, having funds to purchase air plants for employees).

This is the first qualitative study conducted on a non-patient population that received a common workplace prescription. Notwithstanding, there are similar findings to other qualitative studies exploring the perceptions of patients and relevant stakeholders on SP, therapeutic horticulture and workplace well-being literature. A common theme in terms of reach is to be consistently client-centric in terms of knowing their needs, motivations and barriers in receiving their social prescription (eg, time limitation and work pressures).²¹ This suggests the importance of programme implementers having a good understanding of SP. This client-centrism is also exemplified by Mark's²²

study on understanding the motivations of university staff in engaging in a regular lunch-time gardening initiative within their campus ('Green Exercise'). Our study parallels this finding under the subtheme titled '*reach of programme can be improved by factoring in the needs of different personalities*', where tailoring the SP intervention to accommodate participants' preferences resulted in increased programme uptake. Workplace wellness programme organisers may therefore consider selecting activities which are more popular to reach more participants, and just as in SP4S-H, staff were polled for their interest in these programmes. They should also consider holding sessions at timings which match the schedules of HCWs who are on shift.

With regard to the implementation and maintenance of SP efforts, political will is paramount to its success, as supported by Whitelaw *et al*'s²³ study which examined the areas of effective senior leadership, clear strategic and operational planning and its incorporation into the normalcy of care. Similarly, our subtheme titled '*support from leaders and peers (via information dissemination) increases programme outreach*' demonstrates that senior management plays a pivotal role in building an organisational culture that normalises staff participation in SP programmes.

Granting flexibility in joining SP initiatives (instead of a top-down approach)²⁴ and ensuring continued funds²³ and staffing²⁵ for such programmes are also enablers for sustainability. Our study echoes this sentiment under the subtheme titled '*need to build a self-caring culture for similar well-being promoting programmes to be accepted by staff*' which posits that granting staff the autonomy to decide to join a SP programme without fear of backlash would increase their willingness to join future programmes of their own volition. Indeed, respect for personal and professional boundaries, as well as individual preferences to participate in SP activities, may paradoxically promote trust and social cohesiveness among stakeholders.

There are differences between our findings and those from the existing literature. First of all, in terms of implementation, a common barrier faced by programme implementers in other studies²¹ is that they may not understand much about SP services and how to link patients to these services. This is not apparent in our study as some SP4S-H leads had previously collaborated extensively with community partners in SP. This underscores the importance of possessing prior experience in collaborating with community partners to ensure the seamless implementation of the SP programme. Second, as compared with other studies, the infrastructure requirement (eg, physical space) for implementing SP4S-H was minimal as it took place during the pandemic, where virtual meetings were more common than physical meetings. In addition, its main product (ie, air plant) was small, portable and easily integrated into the workspace.^{23 24} The ease of integration offered by this virtual approach to horticulture may potentially lend itself to its replicability in future SP programmes where space is a constraint. Finally, in terms of sustainability, other studies (eg, Mark *et al*)²²

indicated that proper coordination of nature-based activities is crucial to popularise them among staff, whereas in our study, praise reports might have the potential to be more important in disseminating its benefits within the organisation. This could be due to the more complex horticultural interventions (eg, building a garden) in Mark's study which required more coordination within a smaller pool of participants in the university. Thus, future SP programmes that are larger in scale may choose to place greater emphasis on proper coordination of activities to ensure its sustainability, whereas smaller-scale SP programmes may consider focusing on praise reports to improve uptake among participants.

The implications of this study are manifold. First, given that the perceived effects of SP4S-H's may be short-lived and may not fully address all of the challenges faced by staff, the senior management and steering committee would need to fine-tune the goals and even consider defining the tangible health and non-health outcomes of SP4S-H. This may include its impact on the prevalence of mental conditions (eg, anxiety)²² or even occupational health indicators (eg, the levels of absenteeism and presenteeism during work),²² which were not specifically explored in our study. The organisation may consider incorporating flexible working arrangements to improve the well-being of staff and provide them with the bandwidth to participate in SP interventions.

Interviewer: Okay. Sure. How do you think SCH can support the organizers so that the program can be smoother, and more participants can participate?

ID 20: Oh, okay, actually, it depends. But more flexibility in terms of working hours. I mean, I don't know. Yeah, subjected to contingency.

Interviewer: Okay, so, I clarify, do you mean to say that the senior management could create more flexibility of working hours for the staff so that organisers can find it easy to recruit these people for the programme?

ID 20: Yes, yes.

Second, workplace challenges (eg, workload and acceptability of taking time off) for SP4S-H have a far greater impact on staff. The shepherding of staff by various departmental leads who have direct influence on workplace practices could be more effective than relying on satellite workgroups to promote staff well-being. Nonetheless, it remains uncertain whether this intervention or the change in work conditions or culture can be implemented in a SP framework, as SP for staff is still a very new concept. Perhaps an interactive feedback loop from staff to department leads can help to add newer and more relevant components to a more contextualised social prescription outside horticulture (eg, individual mentorship, changing certain work practices, appropriate increase in autonomy for ground staff). Finally, there is the possibility of integrating SP for hospital staff with the concurrent SP attempts with our patients, without needing to reinvent

the wheel. Several participants mentioned that as patients are typically unaware and unfamiliar with SP, they tend to be unreceptive at first.

ID5: But whereas, if I am a patient out of the blue, you come and show me a, you know a air plant and then said, you know, ah “aunty ah lets come and do.” I will feel like, what is this? Also, probably, I think the understanding of the social subscribing for patients are still quite elementary at this point.

Therefore, the impact of a hospital worker seeking SP either as primary prevention of workplace stress or even treatment for underlying medical and social afflictions may serve as an example for patients to consider seeking such services, tailored to their needs.

Our study has several strengths. All organisers and participants of this programme were approached for this study and came from different occupations. Moreover, the study team has sufficient credentials in qualitative research and SP to conduct the research and exercise rigour in iterative analysis, culminating in thematic saturation which is tested through member checking. Lastly, many key findings which were not apparent prior to the study (eg, the importance of building a self-care culture in the workplace, the fact that staff may not look to the workplace to address work-related stressors) are crucial for senior management and organisers when designing future iterations of SP4S-H to better tailor to participants' needs.

However, the study also has limitations. First, this study was conducted on staff belonging to the eastern health cluster of community hospitals, and many physicians and nurses were unable to participate in the programme and interviews. Most interviewees were women, Chinese and administrators. Second, there is a possibility of observation bias given that the interviewers and participants are from the same institution and may have previously worked together. However, the study team felt this relationship may have enabled the study team to explore their lived experience at a deeper level. This may not have been achieved if the interviews were conducted by external parties. Third, many participants were also unable to participate in all the activities due to a variety of reasons (eg, competing service obligations faced by healthcare staff; timing of the interviews). If the research team had been able to engage with those who dropped out earlier, we might have gleaned deeper insights into their experiences and reasons for attrition. Their inability to participate may signify that they may potentially be under greater stress and thus require more support to improve their well-being by relieving them from their duties. Furthermore, as organisers tended to work in silos at their respective hospitals, they were only able to provide insights based on their limited understanding of how SP4S-H was adopted by other sites. Nonetheless, the unique work experience of each participant from different disciplines can provide a comprehensive view on

the SP4S-H programme (eg, nurses can comment on the feasibility of their staff attending SP4S-H activities amidst their constant rotations). Our findings are still transferable to other similar settings.

CONCLUSION

This study investigated the perspectives of organisers and participants of SP4S-H towards its implementation in community hospitals. Overall, SP4S-H was perceived to be beneficial, although the perceived effect may be short-lived and not extend beyond work, and numerous barriers had to be overcome to improve the programme. The importance of having the support of senior management, adequacy of resources and deliberate staff engagement in rolling out and sustaining this initiative cannot be underestimated.

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Contributors WPYA was the study's principal investigator and was responsible for the conception and the design of the study. MHT, SYSS, LLL, SGL and KHL were the co-investigators. Access to data was provided by WPYA and MHT, and WPYA was responsible for analysing the data. WPYA and SYSS contributed to the literature review and grant application together with MHT, who contributed to the interpretation of the data. WPYA prepared the initial draft of the manuscript and all authors revised the draft critically for important intellectual content and agreed to the final submission. WPYA is the guarantor of this work and, as such, had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of data analysis.

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