OLDER PERSONS HEALTH SPECIALIST SERVICE,
CANTERBURY DISTRICT HEALTH BOARD

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Te Poari Hauora ō Waitaha

SAFE RECOVERY PROGRAMME PILOT

EVALUATION REPORT

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This is a summary report - please contact authors for further information or data supporting these report findings.

BURWOOD ACADEMY
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Hā-i-mano

BACKGROUND

SAFE RECOVERY PROGRAMME

EFFECTIVENESS

- In Australia, the Safe Recovery Programme (SRP) has been found to be effective at reducing rates of falls by 40%, fall related injuries by 35% and numbers of fallers by 45% in eight rehabilitation units in general hospitals.[1]

INTERVENTION RESOURCES & MECHANISMS OF EFFECT

- SRP uses patient-directed education and individualised goal setting as its key mechanism of intervention. This is in contrast to other falls prevention programmes which tend to focus on changing staff behaviours and ward risk-minimisation practices.
- SRP aims to educate patients about how to keep themselves safe in hospital using a combination of video and written resources, alongside dyadic goal setting discussions.
- Patient learning and a reduction in behaviours that place people at increased risk of falling is achieved via personalising risk and then motivating risk mitigation through enactment of personally determined falls prevention strategies.
- Patients are encouraged to speak up and proactively seek help from staff, encouraging staff to join them in implementing their risk reducing strategies.
- Ward staff also receive training about the SRP intervention so they can positively reinforce SRP messaging with patients.

I think SRP was quite good [at] making people aware that they are still at risk of falling and empowering them to make some goals and make some changes around that. I noticed a few people [say], 'oh I didn't even think that I was at risk of falling in hospital'.

(Ward staff; focus group)

BURWOOD PILOT

SRP IMPLEMENTATION INFORMATION

- 14 weeks (August and November 2018)
- Two SRP educators (1.4 FTE), a physiotherapist and a nurse, were employed to implement the SRP pilot.
- Implemented in four OPHSS rehabilitation wards (B1, C2, D1 and DG). Previous falls data from the OPHSS indicated 15-18 falls/1000 bed days despite implementation of an active falls prevention programme.[2,3]
- Most key components of the original SRP programme[4] were maintained including use of original training and implementation resources such as videos and workbooks.
- SRP educators screened ward admissions for patients who were eligible to receive the SRP intervention. Patients were eligible if they did not have cognitive impairment (defined as MOCA >23/30) or delirium (screened using 4AT and then MOCA). Patients were eligible if their 4-AT score was 1 or 0.
- Those patients with hearing impairments received education using headphones for audio, and a handheld amplifier was used for educators' speech.

IMPLEMENTATION DIFFERENCES AT BURWOOD SITE

- Wall-posters (A3 size) were used to highlight key SRP messages (i.e., know when you need help, ask for help and wait for help) as well as recording individual goals patients had identified for keeping themselves safe.
- Four retired nurse volunteers were also used to deliver some components of the programme after being provided with a 2-hour education session and participating in at least three patient education sessions with a staff educator present. These volunteers delivered initial SRP education and goal setting sessions to individual patients but were not involved in providing follow-up conversations with patients.

EVALUATION METHODS

STUDY DESIGN

METHODOLOGY

- Realist Evaluation methodological approach[5]
- Quantitative data assessing the extent of SRP effectiveness was gathered by SRP staff or obtained via the CDHB Decision Support team (Table 1).
- Qualitative data was collected via surveys, interviews and focus groups with patients, ward staff and SRP educators (Table 2). The lead researcher (RM) used realist interviewing techniques[6] to gather data exploring views, perceptions, experiences of patients and staff. Realist interviews aim to explore how different contexts in which a programme is delivered may impact on outcomes. Therefore, while questions were open ended (Appendix 2) they explicitly asked about contextual factors (e.g., staff attitudes, ward culture, availability of equipment), possible mechanisms of action (e.g., improved knowledge, increased awareness, improvements in self-efficacy) and outcomes (e.g. how patient and staff behaviours may have changed).
- Taken together, this data has been used to provide an overall evaluative account of how SRP worked, with an emphasis on 'what works for who, in what contexts, and how'?

SURVEYS & INTERVIEWS WITH PATIENTS

- Surveys: explored beliefs about falls risk and falls prevention strategies, and respondents' experiences of SRP implementation (Appendix 1). Opportunities were also given for free text comments to be provided.
- Patients who had received SRP education were invited to complete an online survey (SurveyMonkey) after their follow-up SRP session. SRP delivery staff supported the patients to complete the survey as required.
- Patients who had received SRP education sessions and were able to communicate and express ideas within an interview situation were invited to participate in interviews with the lead researcher.

SURVEYS & FOCUS GROUPS WITH WARD STAFF & FOCUS GROUPS WITH SRP PROVIDERS

- Surveys: staff were asked to complete two surveys –at the start, and again at the end, of the SRP pilot implementation period (Appendix 2). Staff were asked to rate to what extent they agreed with proposed key mechanisms of intervention effect as articulated within SRP training resources and publications. Opportunities were also given for free text comments to be provided.
- Interviews: Nursing, nurse aide, allied health and medical staff who worked on the ward at the time of the SRP pilot programme (and prior to its implementation) were invited at participate in a focus group dedicated to their own ward. SRP educators who delivered the SRP intervention had a focus group dedicated to their own role.

I know how to do this safely because I have clear directions on my board. And the nurses have clear information and commands.

(Patient; interview)

DATA COLLECTED

	Type of data collected
Demographic data	Gender, age, ethnicity, ward if falls were a reason for admission, and history of falls
SRP delivery data	Referral method, time from admission to education, eligibility, 4-AT result, number of and length of education sessions delivered, goals set, goals changed
Outcome data	Rate of falls, rate of injuries from fall, total number of fallers

Table 1: overview of CDHB-gathered data

PARTICIPANTS

Participant group	Type of data	Number of participants
Patients	Survey Interview	72 11
Ward staff	Survey Focus group (n = 3)	49 (pre-pilot) 44 (post-pilot) 8 staff from 3 wards
SRP educators	Focus group (n = 2)	6 participants (2 paid staff and 4 volunteers)

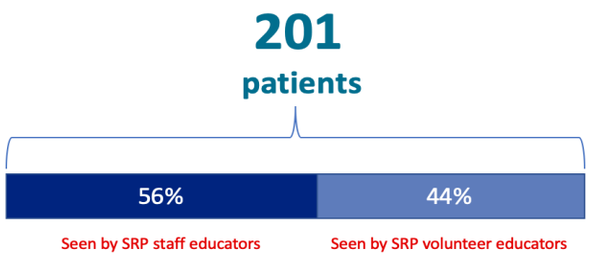
Table 2: overview of participants contributing to evaluation

SRP DELIVERY DATA

While most of the key components of the original SRP programme were maintained - including use of the same training and implementation resources - there were contextual differences between the Perth programme development site and Burwood that led to some intervention modifications. Communication with the original researchers occurred throughout the pilot and informed these modification decisions.

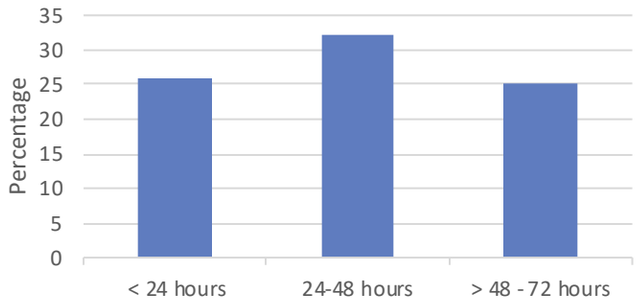
WHAT WAS DELIVERED, TO WHO?

- 260 patients were screened by an educator. Following screening, 201 patients were offered SRP education with 113 (56%) patients being seen by paid SRP educators and 88 (44%) by SRP volunteer educators.



- On average 27 minutes (range 15 – 60 minutes) was spent delivering initial SRP education to each eligible patient.

- Most patients (83%) received initial education sessions within 3 days of admission (26%, 32% and 25% within 24, 24-48 and 48-72 hours respectively).



- More than half of the patients (n = 114; 57%) received more than one session, checking their understanding and reinforcing SRP messaging.

HOW WAS IT DELIVERED?

- Each patient consented to 'an education program about keeping safe whilst in hospital'. They were then shown a video via an iPad screen. A portable speaker or headphones was available for patients with hearing impairments. After the video had been viewed a discussion took place and the SRP booklet was reviewed. This discussion culminated in the setting goals which were written on an SRP wall poster. If there were any interruptions for therapy or patient care, the session would be ended and resumed when next able.

- After completing this initial education, goals were fed back to ward staff by SRP educators. Any relevant information that had come up in the SRP conversation was also fed back to the ward staff. An entry was made in the clinical notes to indicate that the SRP session had occurred.

- A follow up session was provided three days or more after receiving the initial education, or after the patient had an inpatient fall. The follow up session comprised of reviewing the SRP booklet and key messages of SRP. A discussion was had on how the advice had worked for them, any changes to their function or risks perceived. The goals set were then revised and were edited, replaced or removed depending on relevancy. Again, the session outcomes were documented, the information handed over to staff.

- There was a change in the focus of the educators after falls data (available for monthly review) demonstrated the rate of falls was highest in the first two days of a patient stay. Following this review, SRP educators aimed to educate patients earlier after admission, as it was reasoned that providing the SRP intervention at this earlier time may contribute to reduced falls within the first few days of admission.

KEY DIFFERENCES IN THE BURWOOD CONTEXT

- Volunteers only delivered the initial training session; they did not provide direct feedback to staff.

- Time between the appointment of SRP educators and the start of SRP implementation was short so training to ward staff regarding how to integrate SRP messaging into daily routines was less extensive than that described by Hill et al.[4]

- Feedback processes to staff were not as formalised and explicit as described in Hill et al.[4] However, SRP providers did link into service-wide falls review meetings.

SRP GOALS SET BY PATIENTS

TYPE OF GOALS IDENTIFIED IN SRP SESSIONS

- A wide range of SRP goals were written on A3 wall posters (Figure 1), recorded using patients' own wording.
- As shown in figure 2, the most common goals related to using their call bell (19%) and not rushing (10%)
- Patients set an average of 2.8 goals per person.

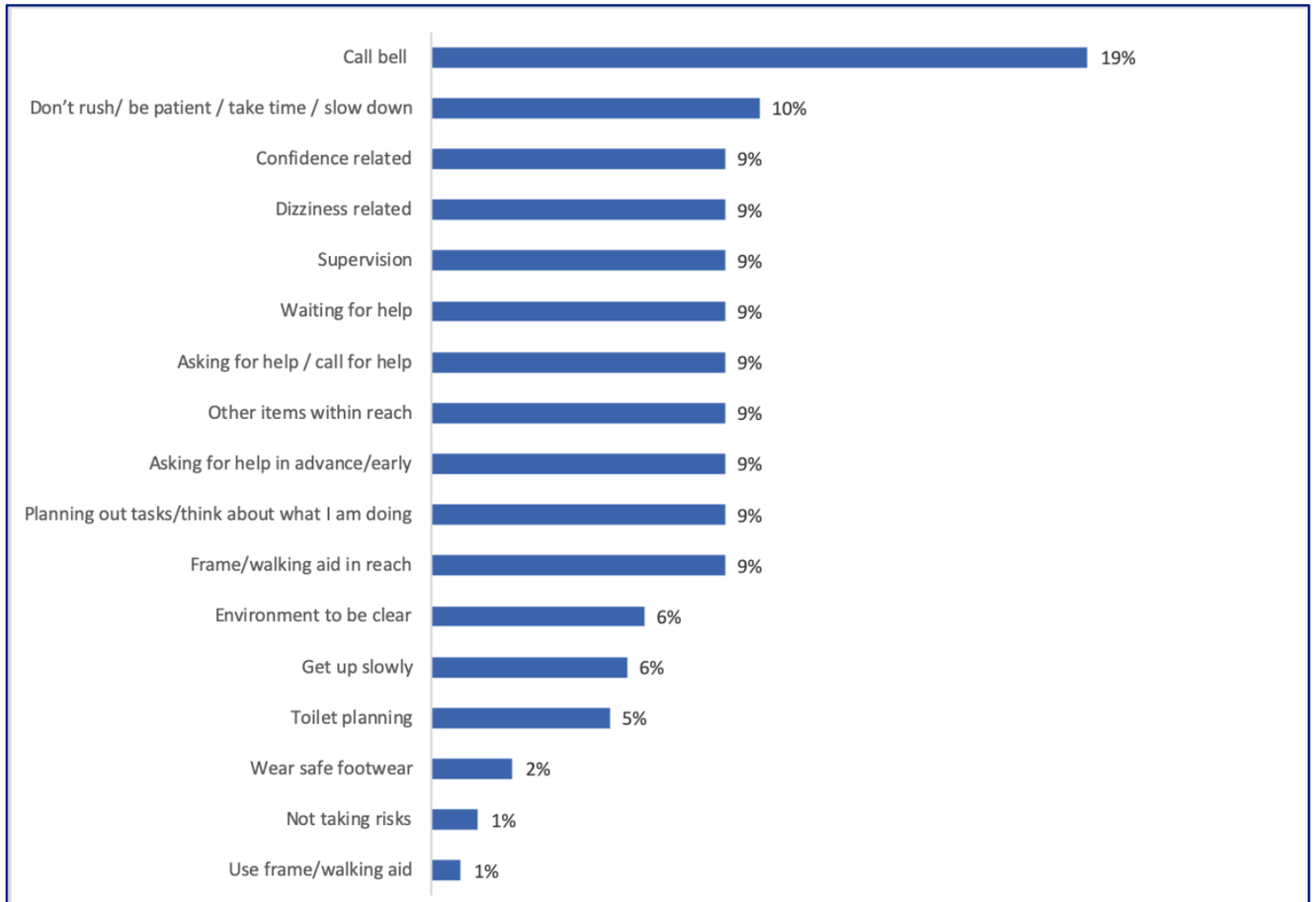


Figure 2: Overview of goal types identified by patients as part of the SRP intervention.

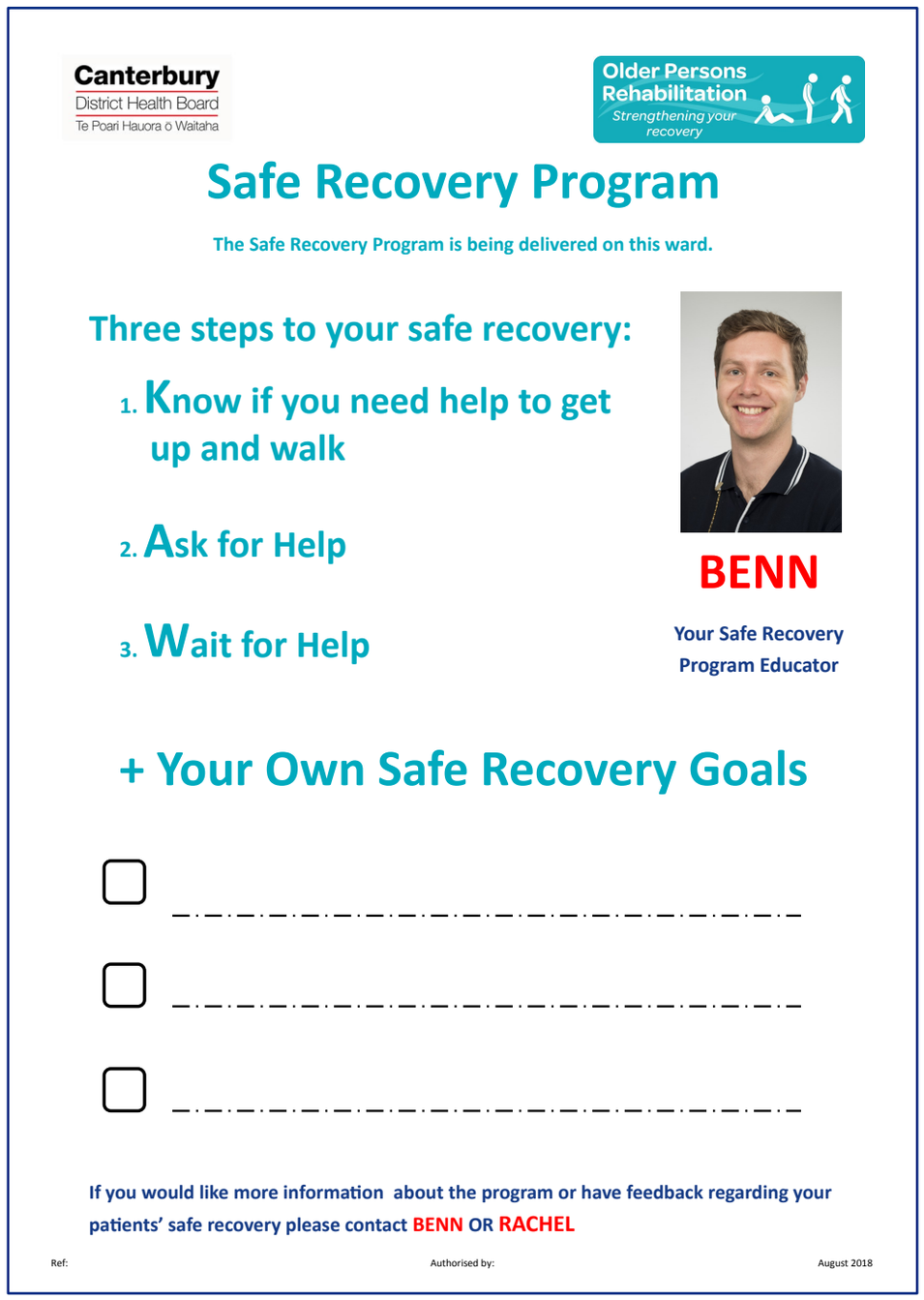


Figure 1: SRP poster – patient's goals were added, and the poster was then hung on the wall beside the patient's bed.

I think one thing that I personally didn't do enough is actually maybe paraphrasing their goals because their goals were on their laminated sheet and it would be quite easy to come in and say, 'Okay, this is your goal, this is your goal, how are you getting on. I see there is no clutter in your room and that was your goal.' I didn't sort of give them a lot of feedback about it - just to keep them in the loop, basically. *(Ward staff; focus group)*

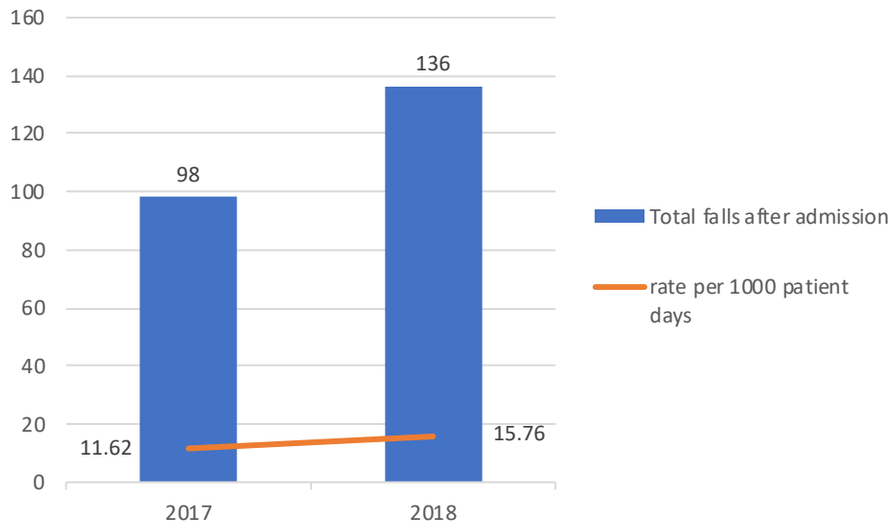
OVERALL FINDINGS – FALLS RATES

Data from four implementation wards over the same time period in 2017 (13/08/2017 to 21/11/2017) was compared to the 2018 implementation period (13/08/2018 to 21/11/2018).

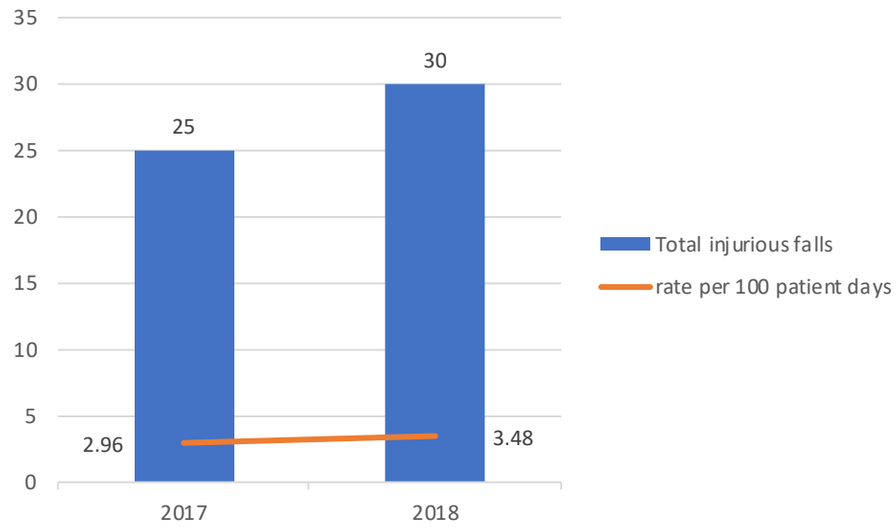
THERE WAS A SLIGHT INCREASE IN FALLS RATES, INJURY RATES AND TOTAL FALLERS BETWEEN 2017 AND THE 2018 PILOT PERIOD

This is not unexpected given that this evaluation was underpowered. However, gathering and reviewing this data throughout the implementation period contributed to decision around the implementation of SRP and to the analysis of the qualitative data.

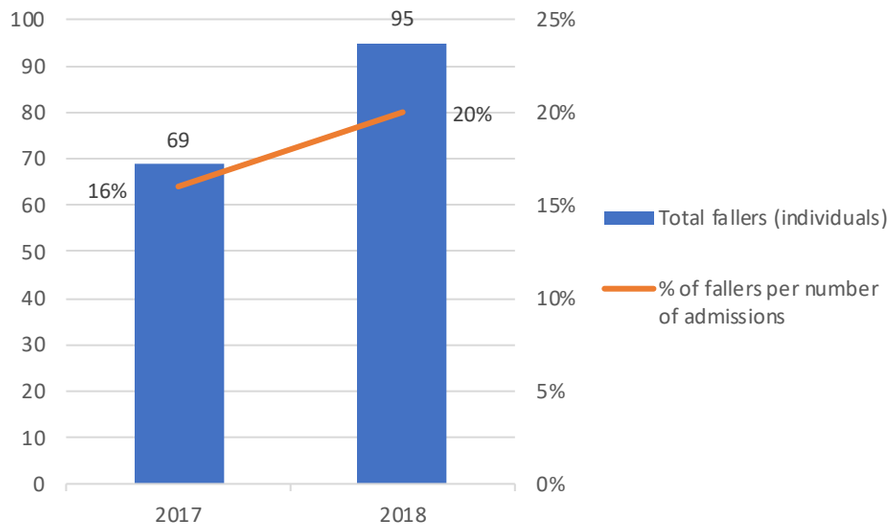
RATE OF FALLS



RATE OF INJURIES FROM FALLS



TOTAL NUMBER OF FALLERS



Falls are everyone's responsibility. We have the best chance at managing falls if we work collaboratively to address issues

(Staff survey; textual response)

OVERALL FINDINGS - QUALITATIVE DATA

WHAT WORKED WELL	IMPLICATIONS
TAILORED APPROACHES • Emphasising different learning foci depending on patient characteristics, appeared to contribute to patients being more able to personalise SRP messaging and lead to them being more likely to ask for assistance when mobilising. This included emphasising different information to those who were feeling overwhelmed, those who were not aware of their risk of falling and those who were negotiating a changing self-identity in response to changing levels of independence. • SRP effectiveness was optimised when it gave patients permission to ask for help, increased awareness of risk through personalised conversations, optimised alignment with patient values so that they were empowered to act, and provided environmental cues reminding patients to request assistance.	• Targeted education should be used to empower cognitively intact patients to keep themselves safe while being rehabilitated as inpatients. • Taking time to understand current understandings and experiences of patients so as to target the SRP intervention to their individual context, is likely to optimise SRP effectiveness (i.e., reduce falls) for each patient.
TAKING TIME – A CONVERSATION, NOT JUST INFORMATION PROVISION • The nature of SRP goal-setting conversations was particularly important in creating an interactional space in which patients could integrate new knowledge into their existing beliefs. • SRP educators and volunteers both highlighted the time required to establish rapport and to develop an interactional space that was both engaging, personalised and motivating. They believed that 'taking time' ensured that actual learning and changes in beliefs around falls risk occurred.	• Time is required to develop a rapport with, and establish goals that are meaningful for, patients. In line with the wishes of community-dwelling older adults around interpersonal communication, patients want people providing falls prevention education to not rush and to be empathetically interested in them as a whole person.
CONSISTENCY & COHERENCY • Consistency and coherence of SRP messaging within ward routines varied in response to staff SRP training and ongoing feedback mechanisms from SRP educators. Staff training and processes for facilitating ongoing feedback between patients, SRP and ward staff are required to ensure consistency and coherence of SRP messaging. • Theoretical understandings about how coherence and mutual understanding may contribute to SRP intervention effect should be extended to include consideration of 'internal coherence' within patients, rather than just coherence between staff and patients.	• Staff training should include more emphasis on coherence of staff messaging. That is, it is not only what is said that matters - rather there needs to be coherence between staff words, actions and attitudes, within individual staff, between staff and across shifts. • Patients need to develop internal consistency, and SRP messaging provided within the context of goal setting conversations needs to account for a changed and changing sense of self.

IMPACT STATEMENT

SRP effectiveness may be optimised when messaging is targeted to specific patient characteristics. Assessing current understandings and readiness for SRP messaging to allow for effective targeting may lead to reduced risk-taking behaviours. Additional staff training is required to ensure consistency and coherence of SRP messaging, including integration with existing falls prevention strategies.

RECOMMENDATIONS FOR FUTURE IMPLMENTATION IN BURWOOD WARDS

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KEY FINDINGS

RECOMMENDATIONS

FOCUS ON INCREASING CONSISTENCY OF MESSAGING

- SRP aims to increase in shared understanding between patients and ward staff, facilitating consistency and coherence of messaging and strategy reinforcement within the ward environment. However at times this was not as coherent and consistence as it could or should be.
- Staff training and processes for facilitating ongoing feedback between patients, SRP and ward staff are required to ensure consistency and coherence of SRP messaging.
- There is a need to establish processes and mechanisms for increased pre-implementation training and explicit during-intervention feedback to ward staff.
- Responses also suggest there is a need for staff training to incorporate more discussion around the aims of SRP, key messages of the programme, and the use of language that promotes responsibility and self-efficacy without attributing blame.

- Staff training and processes for facilitating ongoing feedback between patients, SRP and ward staff are required to ensure consistency and coherence of SRP messaging.
- It is important to ensure that more explicit and formalised processes to feedback to staff are embedded prior to the start of SRP implementation. This would allow time to 'prime' ward staff about the underlying concepts of SRP, how they can be part of effective SRP implementation, and how the SRP builds on other falls prevention strategies already in use.
- Ongoing discussion and training around language with a focus on safe recovery (vs falls prevention) and minimisation of risk (vs blame). There is also a need for staff to use *positive* reinforcement of SRP in everyday interactions
- Consideration should be given to improving the integration of messaging between CPH and Burwood Hospitals.

VOLUNTEERS PROVIDE EFFECTIVE FALL RISK REDUCTION EDUCATION

- Volunteers of a closer age (when compared to often younger HCPs) provided effective falls risk reduction education as part of goal-directed conversations with older adults undergoing rehabilitation.
- Congruent with research suggesting community-based peer-led education to be effective in changing older adults' engagement in falls prevention strategies, we also noted that SRP volunteers, as peers of a similar age to some patients, seemed to more effectively draw out patients to talk about some issues in more depth – including more in-depth discussions around issues such as continence and fluid management – topics not generally talked about with CDHB staff and/or younger staff.

- While volunteers contributed to effective delivery of the SRP intervention it is important to note that these volunteers had considerable role experience.
- The volunteers were all retired nurses - most having worked in a community setting. Therefore, they all bought listening, teaching and reflecting skills that contributed to the development of engaging, personalised and safe interactional spaces.

DEDICATED SRP EDUCATORS ARE REQUIRED TO COORDINATE SRP PROGRAMME & ENSURE STAFF FEEDBACK SYSTEMS ARE CONSISTENT

- Time was required for conversations in which to develop rapport with patients and to assist patients to establish goals that were meaningful for them.
- SRP providers (both staff educators and volunteers) became more skilled at delivering the intervention over time - especially around engaging patients in the process of SRP delivery, and in personalising goal setting and strategy development.
- While SRP volunteers contributed significantly to the implementation of the SRP pilot (i.e., the initial SRP education and goal setting conversations), SRP-dedicated staff were required to screen patients, feed back to staff, access notes, coordinate and train the volunteers, and develop the programme in line with emerging contextual and clinical needs.

- Experienced, dedicated SRP staff are required to maintain the prioritisation of SRP messaging within the ward, while also ensuring that staff training and feedback continues over time, and not just pre-implementation.
- Effective SRP delivery requires ongoing coordination. That is, there is still a need for paid SRP staff to ensure overall coordination, follow-up sessions with patients, education of and feedback to ward staff, and linkages with other falls prevention strategies.
- Resourcing needs to consider the importance of taking time to engage in meaningful goal setting conversation with patients. This is an important mechanism of effect and takes time.

RECOMMENDATIONS FOR SRP RESOURCE ADAPTATION

KEY FINDINGS

INTEGRATION OF EXISITING BURWOOD FALLS REDUCTION RESOUCES

- SRP education sessions included existing falls prevention resources in routine use within the wards:
  - 'patient status at a glance' boards at patient's bedsides (overviewing their mobility status and levels of independence with mobilising)
  - coloured tags (red, yellow and green) attached to patients' mobility equipment providing them, and staff, with visual reminders of their level of independence with mobilising.
- Explicitly ensuring that these existing resources are included in the SRP video and written material will contribute to the coherence and consistency of SRP messaging for patients.

RECOMMENDATIONS

- The video should be adjusted to include existing local falls prevention systems (e.g., red/yellow/green cards used on equipment).
- Linking the strategies that patients might have heard about reducing falls risk at home (i.e., community falls prevention messaging) may also improve explicit coherence between how they keep themselves safe at home and in hospital.

USE OF POSTERS

- The SRP wall posters outlining key SRP messages and listing the patients own SRP goals were very helpful for patients and staff, aiding recall for patients and contributing to increased coherence with messaging around keeping oneself safe while undergoing rehabilitation.
- The poster is a key new intervention resource that optimises patient recall.
- The use of wall posters overviewing key SRP messages - and including the patient's own goals around keeping themselves safe - were helpful at ensuring that staff were reminded to talk in a personalised way to patients about the use of fall prevention strategies, and to maintain their own staff-initiated falls prevention behaviours.

- Continued use of the SRP posters.
- Ensuring that posters are placed where the patient can easily read them will optimise this important SRP resource (i.e., within line of sight and close enough so they can read the font).

Interviewer: *So has there ever been a time when you've though 'oh, I'm going to do something and then you have remembered something that [the SPR provider] said, or something that was on the video, or you've looked at the poster and thought 'oh no, maybe I'll rethink?*
Patient: *Yep. (quick and clear affirmative response)*
Interviewer: *Can you give me an example?*
Patient: *Oh, it's mainly just getting up and going without somebody supervising. When I was a yellow.*
Interviewer: *So, it has been a bit of prompt for you?*
Patient: *After [the SPR provider] was here, I guess I started to use the bell more.* (Patient interview)

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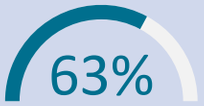
PATIENTS SURVEYS – AFTER DELIVERY OF SRP INTERVENTION

What percentage of patients agree to some extent with the following statements?

Perceived risk of falling	Concern about risk of falling	Confidence with mobilising	Taking responsibility	Knowing how to keep oneself safe	Ward systems and staff behaviours
					
I am at risk of falling while I am at Burwood Hospital	I am concerned about my risk of falling while I am in Burwood Hospital	I feel confident that I can get up and walk safely.	I need to take responsibility to make sure that I reduce my risk of falling while I am in Burwood Hospital.	I know where and when I may be most at risk of a fall while I am in Burwood Hospital	I have talked to staff on the ward about my risk of falls while I am in Burwood Hospital.
					
			Staff are responsible for making sure I don't fall while I am in Burwood Hospital.	I know how to manage and reduce my own risk of falling while I am in Burwood Hospital.	The way that the ward is set up and run (i.e. the way the staff work and the ward systems) is helpful in reducing my risk of falls.

It is so important to wait for help. That is the thing that came out at me. The tendency is to try it themselves, but I learned that from the program is to wait for help.

(Patient; survey textual response)

Key findings

- Even though this survey was completed by patients who had received the SRP intervention, respondents continue to report a variable awareness of their own risk of falling while at Burwood Hospital - with more disagreeing to some extent (40/72; 56%) that they are at risk of falling.
- Respondents level of concern about falling are also quite variable with 57% tending towards not being concerned about their risk of falling while at Burwood Hospital.
- Patients responses were mixed about who carries responsibility for reducing the risk of falls. Nearly all patients (99%) recognise their need to take responsibility. Nevertheless, there is still a number (65%) who feel that staff are responsible for making sure they don't fall while they are in hospital.
- Most of the text responses reflected an understanding of their part in taking responsibility including stating that *it's up to us to make that choice* … *to make sure you are doing things that aren't risky.*
- Many patients (37%) perceive a lack of communication about falls risk from ward staff. Most textual responses stated that they had only talked to SRP staff or volunteers about falls. This contrasts with staff perceptions – with 90% reporting that they always talk to patients about falls risk.
- Most respondents felt that the ward systems were supportive, with 88% agreeing to some extent that the way the ward is set up and run was helpful at reducing their risk of falls;

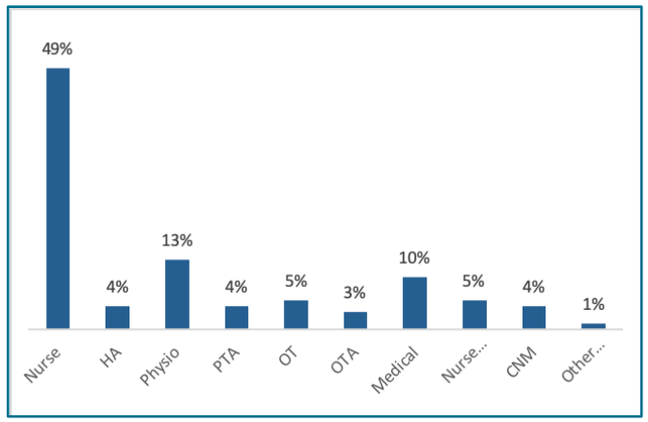
STAFF SURVEY RESPONSES – BEFORE & AFTER SRP PILOT

What percentage of staff agree to some extent with the following statements?

NB: given that the pre- and post-implementation survey responses were very similar, these findings are an averaged response (i.e., combined total number of participants n = 91).

Risk and risk reduction	Responsibility for falls prevention	Staff reinforcement of falls reduction messaging	Asking for help	Ward culture, processes and systems
90%	34%	90%	68%	86%
Patients on the ward put themselves at risk of falling.	Patients on the ward are fully responsible for preventing falling while they are on the ward.	I always talk to my patients about their risk of falls whilst they are in hospital	Patients on the ward use the call bell and wait for help to mobilise	The ward culture, processes and systems are supportive of minimising the number and severity of falls.
68%	52%	94%		
Patients should have goals and specific strategies to reduce their risk of falling while on the ward.	I am fully responsible for preventing patients from falling while they are on the ward.	I always discuss with my patients on the ward the strategies (i.e. tasks) they can use to reduce their risk of falls.		

Figure 3: overview of professional roles of staff completing pre- & post-implementation surveys



Key findings

- In contrast to the perspectives of patients, 90% of staff feel that they talk to patients about their risk of falling and 94% report that they always discuss falls prevention strategies with patients. Some text responses stated that they do this repeatedly, that they are like a *'stuck record'.* However, other staff acknowledged that they did not do it as consistently as they would like. *Sometimes I think falls prevention 'tasks' information is lost in the myriad of things we talk to patients about .*
- Responses suggest there is a need for staff training to incorporate more discussion around the aims of SRP, the key messages of the programme, and the use of language that promotes responsibility and self-efficacy without attributing blame. *Staff are not entirely responsible for this. Strategies are only as good as compliance from the patient which sometimes is not evident. Therefore there is a joint responsibility.*
- Reference was made to the tensions between keeping oneself as part of a rehabilitation process. One staff member commented that *'it is part of the rehab process to encourage independence, which carries a degree of calculated risk'.* Specific risk taking behaviours mentioned by staff were patients frequently not waiting for staff before mobilising, often not ringing the bell, or waiting for assistance.
- There is also a need to talk through issues of 'safe recovery' versus 'falls prevention' and how this aligns with the messages that patients are receiving. Reframing the language from falls prevention to 'your goals' and 'keeping safe in this environment'(as occurs in SRP) may assist staff to do falls prevention and other roles concurrently.

INTERVIEW & FOCUS GROUPS – WHAT WORKED & DIDN'T WORK?

- Findings suggest that SRP messaging appeared to be more effective when specific components were individualised to patients exhibiting different personal characteristics.
- This included emphasising different information to those who were feeling overwhelmed, those who were not aware of their risk of falling, and those who were negotiating a changing self-identity in response to changing levels of independence.
- Emphasising different learning foci depending on patient characteristics, appeared to contribute to patients being more able to personalise SRP messaging and lead to them being more likely to ask for assistance when mobilising.

Relationships between the context, mechanisms of intervention effect and SRP outcomes

GAINING PERMISSION TO ASK FOR ASSISTANCE	• If a patient is unsure of ward systems or is feeling overwhelmed, then placing more emphasis on the expectation that patients should call for assistance to keep themselves safe appears to enhance SRP messaging.
INCREASED AWARENESS OF RISK THROUGH PERSONALISED CONVERSATIONS	• Patients were more able to draw on relevant strategies to keep themselves safe when they were made aware of their risk of falling in hospital.
ALIGNMENT WITH PATIENT VALUES SO THEY ARE EMPOWERED TO ACT	• When SRP education aligned with patients' own values and understandings of their independence, they felt more empowered to act in their own best interests and were less likely to engage in risk taking behaviours.
ENVIRONMENTAL CUES REMIND PATIENTS TO ASK FOR HELP	• If a patient had mild cognitive or memory impairments or if they were feeling overwhelmed, then the SRP poster and other environmental cues reminded them to ask for help and to plan their mobilising tasks.
SRP PRIORITISES FALLS PREVENTION MESSAGING	• In the context of a busy ward with multiple staff priorities and frequent changes in staff, a visual reminder (i.e., SRP poster) and ongoing feedback from SRP educators contributed to the prioritisation of falls prevention messaging.

[The SRP educator] gave permission to ring bell and that they wanted you to. So that felt a little bit … it was good. Quite a relief.

(Patient; interview)

People in hospital give up their power in hospital. As soon as they walk in the door. It is an anxiety inducing place - 'I will just do whatever you tell me I need to do; you're the expert'. So [SRP] gives them some control. So, it is ok for you to say to staff … 'can you leave my frame there', or 'it needs to be there beside me', or 'where's the bell?'.

(SRP volunteer educator)

When I saw [my goals on the poster] it made me think about them, and the reasons for them. And it seemed more sensible to take notice of them. Especially in a place where I'm not familiar with.

(Patient; interview)

DEVELOPMENT OF THEORETICAL UNDERSTANDINGS ABOUT HOW SRP WORKS

PRACTICAL IMPLICATIONS

GAINING PERMISSION TO ASK FOR ASSISTANCE

- If the patient is relatively new to Burwood and has not spent a lot of time in hospital prior to this admission, then more emphasis should be placed on the 'rules' of the hospital and ward systems. This will contribute to them gaining permission to call for help and will reduce their anxiety about asking for help too often.
- Ensure that patients are explicitly given permission to call for help and has had ward processes explained to them – especially for those who are feeling overwhelmed in the busy hospital environment.
- A lack of consistency in messaging from staff in terms of their attitudes and behaviours could contribute to an unwillingness to ask for help.
- Toileting was a key area of anxiety for most patients, with frequent past 'bad' experiences of inconsistent messaging, or not being able to 'trust' staff to assist in time when urgency was required.

INCREASED AWARENESS OF RISK THROUGH PERSONALISED CONVERSATIONS

- If a patient has had a recent fall either at home or within the hospital this admission, then they are 'primed' for education and are open to learning and integrating new knowledge. The SRP intervention should therefore focus on the higher risk of falling in hospital and strategies that they can use to reduce this risk.
- Linkages to their current mobility status seemed to be especially important at times of transition from between supervision (i.e. yellow tag) to independent status (i.e., green tag). Patients referenced that it can be difficult to make a call about whether they should do certain tasks on their own or not.
- Explicitly linking 'keeping yourself safe' messages to their recent fall's experiences appeared to help patients develop strategies that they can use to reduce their risk of falling while participating in rehabilitation.
- Providing patients with opportunities to strategise their way through a series of specific tasks appeared to be helpful (e.g., setting up their bed-space optimally; working out the most efficient way to mobilise to the toilet).

ALIGNMENT OF PATIENT VALUES SO THEY ARE EMPOWERED TO ACT

- If the patient is experiencing a change in independence status (i.e., they are requiring more support than they did prior to admission) then attention should be given to education and goal setting conversations that align with the patient's own values and changed sense of identity (e.g., what does it now mean to be an independent person when I need help for toileting?).
- Targeting SRP messages towards developing a sense of empowerment and control over actions they can take in keeping themselves safe appeared to be an important mechanism of effect.
- There was less acknowledgement by staff that patients need time to renegotiate their sense of self. This means that aspects of changing levels of independence may not be fully explored by staff, even though relationships between self-efficacy and people's attitudes and responses to falling need to be considered.
- SRP-led education and learning appeared to be one avenue by which patients could be empowered to act to keep themselves safe. When specific strategies were framed as the patient being able to retain or retake control, this was perceived by patients as an act of independence.

ENVIRONMENTAL CUES REMINDS PATIENTS TO ASK FOR HELP

- Use of wall posters overviewing key SRP messages, and including the patient's own goals around keeping themselves safe, ensured that staff were reminded to talk to patients about the use of fall prevention strategies, and to maintain their own staff-initiated falls prevention behaviours (e.g. ensuring that the environment is safely set up and that the call bell is within reach at all times).
- The poster also reminded staff to prompt patients, assisting them in keeping prompts relevant and personalised to specific patients.
- The SRP booklet was less important as a prompt for patients but was often helpful for families, who then provided additional prompting for patients.
- Integration of SRP messaging with other falls prevention strategies may increase safety messaging coherence and build on the SRP resources' ability to prompt patients to act on their SRP goals.
- The 'patient status at a glance' board and traffic light mobility cards appeared to be key resources that supported the development of a shared understanding and collaboration between patients and staff.

DEVELOPMENT OF THEORETICAL UNDERSTANDINGS ABOUT HOW SRP WORKS

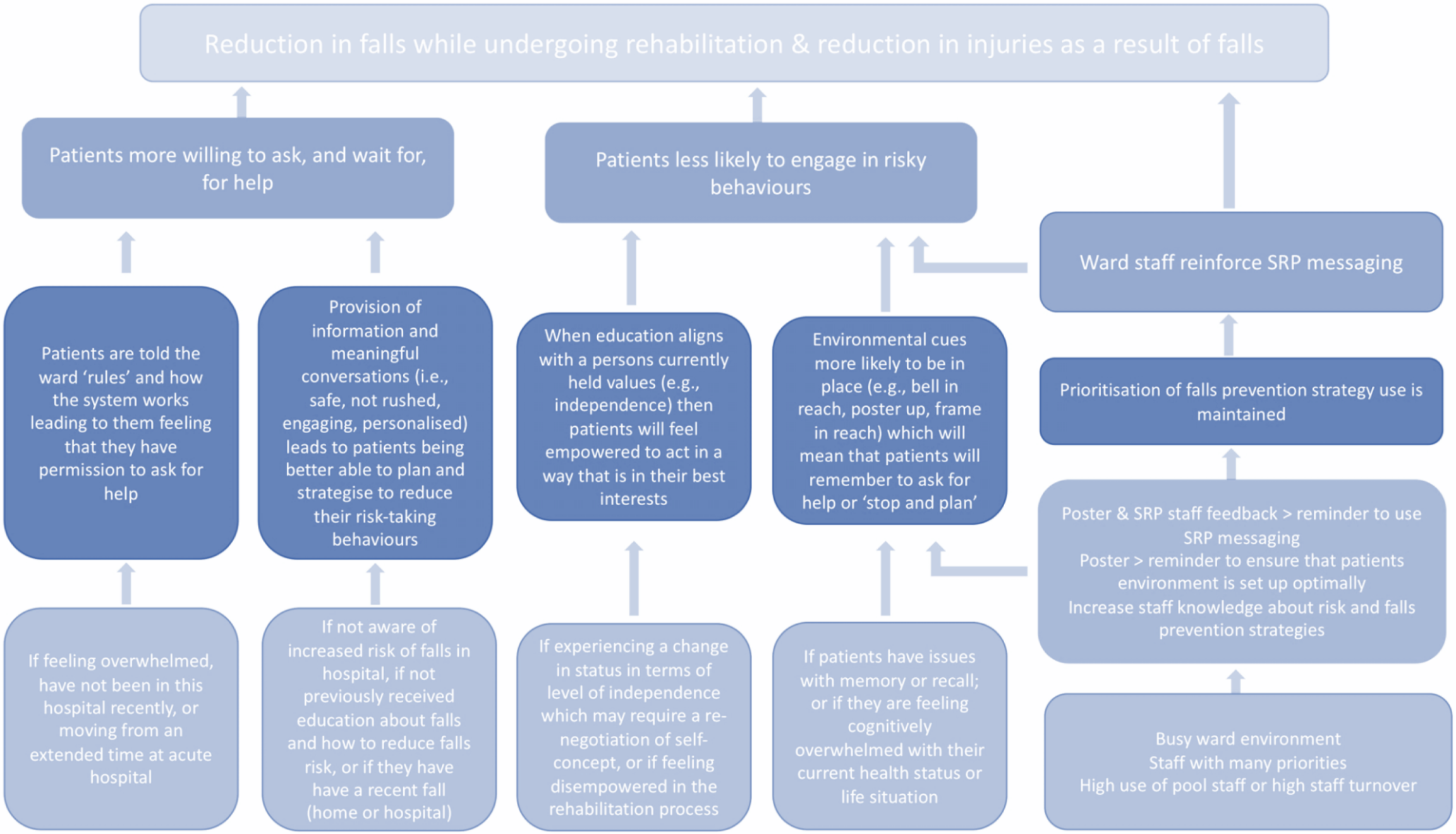


Figure 4: Overview of context-mechanism-outcome configurations that explain how SRP for patients with different characteristics, and in a busy ward context..

LIMITATIONS & ACKNOWLEDGEMENTS

LIMITATIONS

LIMITED INTERVENTION PERIOD

- A key limitation of this pilot was the short implementation timeframe, and that it was only implemented at one site. This limits the generalisability of findings.
- However, theoretical development can contribute to the successful implementation of SRP in other settings. A key realist assumption is that theory is portable ensuring that knowledge can be translated more successfully through a deeper understanding of how interactions between context and intervention resources impact on mechanisms of effect, and therefore outcome achievement.[5]

LACK OF PROCESS DATA RELATED TO STAFF FEEDBACK PROCESSES

- A lack of process data being collected related to feedback given to ward staff from SRP educators. More information about processes that were actually used, forms of feedback and types of issues that were discussed would have contributed to a deeper understanding of how these interactions may impact of SRP effectiveness.

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- Volunteers:
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  - Val Smith
  - Jay McGregor
  - Annabelle Rayner
- Patients undergoing rehabilitation at Burwood Hospital

APPENDIX 1: INTERVIEW & FOCUS GROUP QUESTIONS

SRP staff & volunteer questions

- Could you explain what your role is in the 'Safe Recovery' programme? Has this changed at all since the Safe Recovery Programme started? How?
- What do you think an ideal hospital-based falls prevention programme looks like? What would the key components be?
- Why is the 'Safe Recovery' programme helpful (or not helpful)?
- Do you think that 'Safe Recovery' has worked? For everyone?
- Can you explain to me the types of people and places where you think it might be more effective?
- How do you think the 'Safe Recovery' programme works?
- How would you know that 'Safe Recovery' programme has 'worked'?
- Can you give me some examples of when it has worked or when it hasn't worked?
- Could you talk to me about any difficulties you had in providing the 'Safe Recovery' programme?
- What do you think is most important about the way that you provide the SR programme?
- Do some patients respond differently to others? If so, how? (e.g. past experiences of falls, memory/recall, cognitive status, view of independence, likely discharge destination, cultural differences?)
- Do some staff respond differently to others? If so, how? (e.g. role, time of day, resources, openness to change?)
- Do you ever alter the way you provide 'Safe Recovery' programme? Why? In what ways?
- What characteristics do 'Safe Recovery' delivery staff need?
- What characteristics in the way the 'Safe Recovery' programme works will help create a better outcome (i.e. reduce falls while in hospital)
- How do you think the level of your (or others) clinical experience has influenced the way this programme is delivered?
- In what ways has the use of volunteers changed the way that the 'Safe Recovery' programme is delivered, or on the outcomes achieved? Have the responses of patients or ward staff been different?
- Can you think of examples of 'unexpected' happenings in response to 'Safe Recovery' programme?

Ward staff questions

- Could you explain what your role is in the 'Safe Recovery' programme?
- What do you think an ideal fall prevention programme looks like?
- Why is the 'Safe Recovery' programme helpful (or not helpful)?
- How do you think the 'Safe Recovery' programme works?
- How would you know that 'Safe Recovery' programme has 'worked'?
- Can you give me some examples of when it has worked or when it hasn't worked?
- Can you think of examples of 'unexpected' happenings in response to 'Safe Recovery' programme?
- What characteristics in the way the 'Safe Recovery' programme works will help create a better outcome (i.e. reduce falls while in hospital)?
- Does having volunteers deliver part of the 'Safe Recovery' programme change the way it is implemented, or on the outcomes achieved?

Patient questions

- What was helpful about the 'Safe Recovery' programme (or not helpful)?
- How do you think the 'Safe Recovery' programme worked or not for you?
- Can you give me some examples of times when it has worked or when it didn't work?
- Could you talk to me about any difficulties in following the advice given to you as part of the 'Safe Recovery' programme?

APPENDIX 2: SURVEY QUESTIONS

PATIENT SURVEY

To what extent do you agree with the following statements? (strongly disagree; disagree; slightly disagree; slightly agree; agree; strongly agree).

[Text boxes were also provided for additional comments]

1. I am at risk of falling while I am at Burwood Hospital
2. I am concerned about my risk of falling while I am in Burwood Hospital
3. I know where and when I may be most at risk of a fall while I am in Burwood Hospital.
4. I need to take responsibility to make sure that I reduce my risk of falling while I am in Burwood Hospital.
5. Staff are responsible for making sure I don't fall while I am in Burwood Hospital.
6. I know how to manage and reduce my own risk of falling while I am in Burwood Hospital.
7. I feel confident that I can get up and walk safely.
8. I have talked to staff on the ward about my risk of falls while I am in Burwood Hospital.
9. The way that the ward is set up and run (i.e. the way the staff work and the ward systems) is helpful in reducing my risk of falls.

WARD STAFF SURVEYS (PRE- & POST-IMPLEMENTATION)

To what extent do you agree with the following statements? (strongly disagree; disagree; slightly disagree; slightly agree; agree; strongly agree)

[Text boxes were also provided for additional comments]

1. Patients on the ward put themselves at risk of falling.
2. Patients on the ward use the call bell and wait for help to mobilise.
3. I always talk to my patients about their risk of falls whilst they are in hospital always discuss with my patients on the ward the strategies (i.e. tasks) they can use to reduce their risk of falls.
4. The ward culture, processes and systems are supportive of minimising the number and severity of falls.
5. I am fully responsible for preventing patients from falling while they are on the ward.
6. Patients on the ward are fully responsible for preventing falling while they are on the ward.
7. Patients should have goals and specific strategies to reduce their risk of falling while on the ward.

APPENDIX 3: Illustrative data to support overall findings about how SRP works

Theme	Context-mechanism-outcome configuration explanation	Illustrative data
Gaining permission to ask for assistance	If patients are new to the ward, are feeling overwhelmed, unwell, or have spent a long time in acute care *[context]* then explaining ward systems and providing an expectation that they can call for assistance will give patients explicit permission to ask for help. *[mechanism]* This will reduce their anxiety about asking for help too frequently and will facilitate them being more willing to ask and wait for help. *[outcome]*	*And that this was a bit different for what had happened at [the acute hospital] for instance. That there was a really clear expectation over here… I know when people come to [the rehabilitation hospital] it is to get themselves motivated, get themselves going and to get back home. [Patient]* *Lots of information, busy, lots to take in…. It's just I'm not used to it. So, I make an effort to adjust and take it all in. A hospital environment is very different to what you are used to at home. [Patient]* *[The SRP educator] gave permission to ring bell and that they wanted you to…. So that felt a little bit … it was good. Quite a relief. [Patient interview]* *Older people don't want to be a nuisance so they don't want to ring the bell to ask what the rules are, if they can move, or could they please go to the toilet, they will just wait for someone because they don't want to be a nuisance. [Ward staff focus group]*
Increased awareness of risk through personalised conversations	If patients who have not had previous falls prevention education are made aware of the risk of falling in hospital; and if SRP information is provided in a way that is meaningful (i.e., goal setting conversation is engaging, personalised and related to any previous fall experiences) *[context]* then patients will be more likely to draw on relevant strategies to keep themselves safe. *[mechanism]* This means that patients will be able to take an active role in keeping themselves safe, through taking risk reducing action. *[outcome]*	A variable awareness of own risk of falling while at hospital seen in patient survey data • 40/72 (56%) disagreeing to some extent that they are at risk of falling • 41/72 (57%) tending to not to be concerned about their risk of falling while in hospital Nevertheless, there were mixed messages from patients, with a high number of patients recognising their need to take responsibility • 66/72 (92%) either agreeing or strongly agreeing that they need to make sure that they reduce their risk of falling. *Many patients lack insight into their capabilities so effectively overestimate what they can do. Others cannot remember strategies for safety. They do not deliberately act to put themselves in danger, but the effect can be the same.[Ward staff; survey]* *I: If you were going to have to choose who you're going to deliver [SRP] to - because you didn't have enough resources to give it to everyone - who would you think would benefit most? Who would you target it towards?* *P: People who have recently fallen, I think. Whilst they're in that stage of fear of falling - I now that sounds terrible to say that but I've found out of all the clients I talked to, the ones that were most receptive were those who had fallen, had nasty falls and wanted to come keep themselves safe. [SRP volunteer focus group]* *I: If I was going to ask you, how do you think SRP works, what would you say is the most important thing?* *V1: I think that getting that rapport to start with really. Getting a picture of who you're really talking to and what's important to them so that you can sort of pick up and emphasise on those things in the programme.* *V2: Having plenty of time. And giving them the impression that you've got plenty of time as well. That you are not in a hurry. [SRP volunteers; focus group]* *I think you trod a fine line of restriction, versus moving forward and you had to be careful around that and not be negative. And staying safe - you could turn it into negative in a sense as you're in a rehabilitation setting. So, you have to choose your words carefully and be positive. [SRP volunteer; focus group]*

APPENDIX 3: Illustrative data to support overall findings about how SRP works

Theme	Context-mechanism-outcome configuration explanation	Illustrative data
Alignment with patient values so they are empowered to act	If patients are in process of negotiating a new or changing self-concept (e.g., as a person who now requires support to remain safe) and are feeling disempowered; and if SRP education aligns with their own values [context] then patients will feel empowered to act in their own best interests [mechanism] and will keep themselves safe by being less likely to engage in risk increasing behaviours [outcome]	*No, I don't want to interfere. I sit back and think if it was me, I'd do this. But I don't really have much… I open my mouth too often! [Patient]* *I hate being dependent on people. It's hard to ask for help. I always find it hard to be annoying. That's me though. [Patient; interview]* *P: I've never had a problem with my call bell not being in reach. Since I was in this hospital in 2000 with a stroke. I had a big accident. I was in a wheelchair as well. Someone had left my bell on the other side of my bed. So, I crashed.* *I: So that experience – do you now always make sure that your bell is within reach? And you are reminding nurses if they forget?* *P: No. I've tied it on the bed. I can reach that from here and in bed, no problem. [Patient; interview]*
Environmental cues remind patients to ask for help	If patients have mild memory impairments or if they are feeling cognitively overwhelmed *[context]* then the SRP wall poster and other environmental cues (e.g., bell in place, coloured tags on frame) will remind them to ask for help and to plan their activities *[mechanism].* This will remind them to not to engage in risk increasing behaviours, and use their personally identified strategies *[outcome]*	*I think you have just got to be sensible about things. It's like morning, when I rang it to go to the toilet, and [some time later] they weren't here and then I looked at that machine [frame in an out-of-reach location] and I thought, 'no, there is no way I'm getting over to it'. I said to myself 'remember, always wait for a nurse'. I remembered the video. Just the thought alone – remember that [video] tape. [Patient; interview]* *I think [the poster] is there as a reminder and a prompt – then you can talk to them and educate them, 'Ring if you need anything'. Having that is like a visual cue quite prominent on the board there I think it is quite good. [Ward staff; focus group]* *One of the things I did was use the [patient status at a glance] board as a discussion point…as a tool. And one of the first things I do is talk to them, 'well your board says, that you're walking with assistance, you need someone with you and you're using your frame.' – 'Oh, does it?'. And so I show them the pictures and go through that. [SRP educators; focus group]*

APPENDIX 3: Illustrative data to support overall findings about how SRP works

Theme	Context-mechanism-outcome configuration explanation	Illustrative data
In a busy ward environment, SRP prioritises falls prevention messaging	In context of busy ward with multiple priorities, new staff, and high use of pool staff [context] a visual reminder (i.e. SRP poster) and ongoing feedback from SRP educators can lead to increased staff knowledge of falls prevention strategies and increased prompts to patients. [mechanism] This will contribute to falls prevention messaging being prioritised in an ongoing manner and will reinforce the amount and consistency of messaging provided to all patients regardless of cognitive status. [outcome]	*The admission paperwork that we have got already has quite a section of falls prevention and a checklist, but I find it good that someone from outside of the ward comes in and goes through it with them. Because when you are doing admission paperwork with the patient - it is a lot of questions and that falls prevention can be lost in all of that information that you are giving them. So even though you do go over it with them, I think having a separate visit on falls prevention, as a topic just by itself, is really good. [Ward staff; focus group]* *It has opened up a discussion with the patient sometimes about – you know, I have had falls in the past, and I think because it was more focussed on that, [the SRP educators] would often come back to us and say, I don't know if they told you but they've mentioned that they have had this fall or they normally fall like this, or you know, they are anxious about something and so that gives us a lot more information that we might not have picked up on. [Ward physiotherapist; focus group]*

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