CASE STUDIES

A nurse-led, telehealth transitional care intervention for people with multimorbidity: A feasibility study

AUTHORS

KATE DAVIS RN, PhD[1]
IMOGEN RAMSEY PhD[2]
GREG SHARPLIN MPsych[1]
MARION ECKERT RN, DNsg[1]
SEPEHR SHAKIB MBBS, PhD[3,4]

1 Rosemary Bryant AO Research Centre, Clinical and Health Sciences, University of South Australia, Adelaide, South Australia.
2 Caring Futures Institute, Flinders University
3 Department of Clinical Pharmacology, Royal Adelaide Hospital, Adelaide, South Australia.
4 Department of Clinical Pharmacology, School of Biomedicine, University of Adelaide, Adelaide, South Australia

CORRESPONDING AUTHOR

KATE DAVIS Playford Building P4-27 University of South Australia, City East Campus, North Terrace Adelaide SA 5000. E: Kate.davis@unisa.edu.au

ABSTRACT

Objective: We aimed to develop and test the feasibility of a nurse-led, telehealth transitional care intervention for people with multimorbidity.

Design and methods: A feasibility study, using quantitative and qualitative methods was conducted at an 800-bed acute metropolitan hospital from March 2021 to January 2022. Eligible participants were adult in patients with multimorbidity. The intervention involved three stages: (1) baseline risk of readmission assessment and collaborative development of a Transition Action Plan; (2) transitional care coordination following hospital discharge, and (3) handover to the primary healthcare provider. A Transition Coordinator delivered the intervention with the aim of determining the intervention's feasibility in a practice environment. Acceptability to patients was assessed using a feedback survey. Acceptability to staff was noted through recorded interactions, collaboration, and feedback.

Results: Twenty-one adults with a mean age of 78 years participated in the intervention. Participants had 3-10 comorbid chronic conditions, and the most common were hypertension (71%), other cardiovascular (66%), renal (52%), and diabetes (47%). Most patients (52%) were at medium risk of readmission and 38% were at high risk, however, only 24% of patients were readmitted. The study identified there is no routine risk of re-admission screening for patients with multimorbidity, and the intervention was found to be acceptable and feasible to patients, ward staff, and the multidisciplinary team.

Conclusion: The results indicated feasibility of a transitional care intervention for people with multimorbidity, and the need for routine risk of readmission screening for people with multimorbidity. Further research is required to determine if the intervention is cost-effective and associated with reduced rates of hospital readmission.

Keywords: Care coordination, chronic disease, multimorbidity, nursing, telehealth, transitional care model

What is already known about the topic?

- People with multimorbidity often receive fragmented health services, which may increase their risk of hospital readmission.
- Internationally, Transitional Care Model interventions improve the transition experience from acute hospital care to the community and

reduce short-term readmission rates, for people with multimorbidity.
- Transitional Care Model interventions have shown improved health and economic benefits for older adults. However, these benefits have not been evaluated in Australia.

What this paper adds
- This study provides evidence regarding the feasibility and acceptability of a low-cost, nurse-led, transitional care intervention to support people with multimorbidity transitioning from acute hospital care to home/community, in the Australian context.
- The study identified high support needs of participants upon transition and provides preliminary evidence in favour of a fundamental shift from discharge planning to stratified transition planning for patients with multimorbidity.
- Presently, on hospital admission, there is no systematic risk of readmission assessment or transition care planning and implementation for people with multimorbidity. This is a notable service gap requiring redress across South Australian Local Health Networks.

OBJECTIVE

This study aimed to develop and test the feasibility of a nurse-led, telephone transitional care intervention to support people with multimorbidity in their transition from hospital to the community.

BACKGROUND

Due to increasing life expectancy and improvements in healthcare, the prevalence of multimorbidity (i.e., the presence of 2 or more chronic conditions) is rising.[1,2] People with multimorbidity have health outcomes characterised by functional decline, decreased quality of life, and increased mortality.[3] Multimorbidity is costly for health systems and society, due to associations with high hospital readmission rates,[2] high healthcare utilisation,[4,5] and decreased productivity.[6-8] These challenges are perpetuated because health systems are designed for acute and critical illness episodes, and do not effectively address the needs of people with multimorbidity. This population often receive fragmented health services, leaving them vulnerable to receiving inadequate care at the point of transfer between the secondary and primary healthcare sectors, and at risk of preventable hospital readmission.

Evidence-based transitional care, a set of time-limited services provided during an episode of acute illness or symptom exacerbation between and across settings, is now a recognised approach to improve care for older adults by addressing some of these issues.[9] Systematic reviews have demonstrated that transitional care interventions decreased hospital readmission rates and associated health care costs among older adults and people with chronic illnesses.[10-12] Research indicates that successful transitions involve risk of readmission transition assessment and care planning, healthcare provider communication, preparation of the person and caregiver for transition, medication management, community-based follow-up, and patient education.[12-14]

The most rigorously tested set of transitional care interventions, the Transitional Care Model (TCM), has demonstrated enhanced health and economic outcomes for older adults with multimorbidity.[9,15] The TCM is a nurse-led intervention within a multidisciplinary team, targeting older adults at risk for poor outcomes, as they move across healthcare settings and between clinicians.[9,15] It emphasises identifying patients' health goals, designing and implementing a plan of care, and enhancing continuity of care across settings and between providers throughout episodes of acute illness.[9,15] Under this model, care is both delivered and coordinated by the same registered nurse in collaboration with patients, their caregivers, physicians, and other health team members. The focus is care coordination between the primary and secondary healthcare sectors.[9,15] Despite rigorous, multidisciplinary research supporting the TCM, it has not been tested for feasibility or adopted in Australia, further research targeting populations with multimorbidity in the Australian setting is warranted.[10-12]

The aim of this study was to develop and test the feasibility of a nurse-led, telephone transitional care intervention, based on the key components of the TCM, to support patients with multimorbidity in their transition from hospital to the community. Given that the intervention involves a new model of care, it is necessary to determine its feasibility and acceptability, as well as potential barriers to implementation, within the Australian context prior to conducting a randomised controlled trial (RCT).

STUDY DESIGN AND METHODS

A feasibility study was conducted using both quantitative and qualitative methods to determine whether a full trial (pragmatic Randomised Controlled Trial [pRCT]) of the model of care would be feasible. Arain notes that feasibility studies are pieces of research, used to estimate important parameters that are needed to design a main study.[16] Thus, the parameters used to evaluate this study's feasibility

were drawn from Proctor's Evaluation Framework for Implementation Outcomes, these included: feasibility, acceptability, fidelity, and sustainability.[17] The successful feasibility of this study would determine whether a pRCT would be pursued.

As this was a feasibility study, generalisability was not required, similarly, the power calculation was unnecessary, but the sample size was relevant to sufficiently evaluate the identified parameters.[16] Ethics approval was granted by the Central Adelaide Local Health Network Human Research Ethics Committee (CALHN HREC 13646).

POPULATION AND SETTING

The eligible population was adult in patients 18 years of age and over who fulfilled all inclusion criteria and did not meet any of the exclusion criteria (see Table 1). The setting was an 800-bed acute metropolitan hospital with recruitment occurring between March-July 2021 and participants were followed up until December 2021. The Transition Coordinator informed potential participants about the purpose and nature of the study, verbally and in writing, and obtained their written informed consent to participate.

OUTCOME MEASUREMENTS

Feasibility studies are not designed to measure the outcomes of interest; that is the purpose of the main study.[16] Therefore, to assess the feasibility or usefulness of this study, our aim was to evaluate the acceptability and other specified parameters of the study intervention, in the practice environment, according to Proctors framework.[17]

INTERVENTION DEVELOPMENT AND MEASUREMENT

The study team, which included researchers and clinicians experienced in the care of patients with multimorbidity, developed the intervention. The intervention components were informed by evidence from the literature, particularly the Transitional Care Model (TCM), the team's prior experience in developing and testing models of care for people with multimorbidity, and the Stokes' Foundations Framework for developing and reporting models of care for multimorbidity.[12,18-21] The intervention, involved three stages, included elements aligned to Stokes' Foundations Framework and was provided by a registered nurse (Transition Coordinator [TC]). The TC was central to providing care coordination as a key aspect of the intervention. The details of the care coordination intervention are discussed below.

BASELINE RISK OF READMISSION ASSESSMENT AND PLANNING

The TC assessed participants at baseline to identify risk of readmission and needs upon transition. Areas of assessment included: frailty, activities of daily living, cognitive function, depression and anxiety symptoms, mobility, health literacy, medication management, comorbidities, nutrition, and end-of-life planning. Based on the assessment, the Transition Coordinator developed a Transition Action Plan (TAP) with the patient, which identified support services required on discharge (e.g., home medicines review, meals assistance, psychology, physiotherapy, occupational therapy). The Transition Coordinator notified each participant's general practitioner (GP)/practice nurse of the individual's participation in the service and invited their input on the TAP.

TABLE 1: INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria	Exclusion criteria
Adult (over 18 years) patients (ward or emergency department)	Patients living in or likely to be discharged to high level residential aged care facility
Sufficient cognitive function and English language skills to provide informed consent and complete assessments	Patients enrolled in a comprehensive management program on discharge
Ability to engage in telehealth	
A history of either diabetes with cardiovascular disease (two specific chronic illnesses), or comorbidity in at least three of the following illness domains: • Diabetes: type 1 or type 2 • Cardiovascular disease: symptomatic atherosclerotic disease (ischemic heart disease, cerebrovascular disease, peripheral vascular disease, symptomatic valvular heart disease or atrial fibrillation) • Chronic cardiac failure • Psychiatric illness including mood or anxiety disorders • Respiratory disease including chronic obstructive airways disease, asthma, or interstitial lung disease • Kidney disease resulting in chronic renal impairment with creatinine clearance _30 ml/min • Current active malignancy	Patients followed up through other local health network (LHN) services providing community outreach such as patients who are homeless
	Patients with a current history of illicit drug or alcohol dependence which may interfere with ability to engage with the program
	Patients with palliative intent and likely to have a life expectancy of less than 6 months
	Patients due for elective readmission within 2 weeks of current hospital discharge

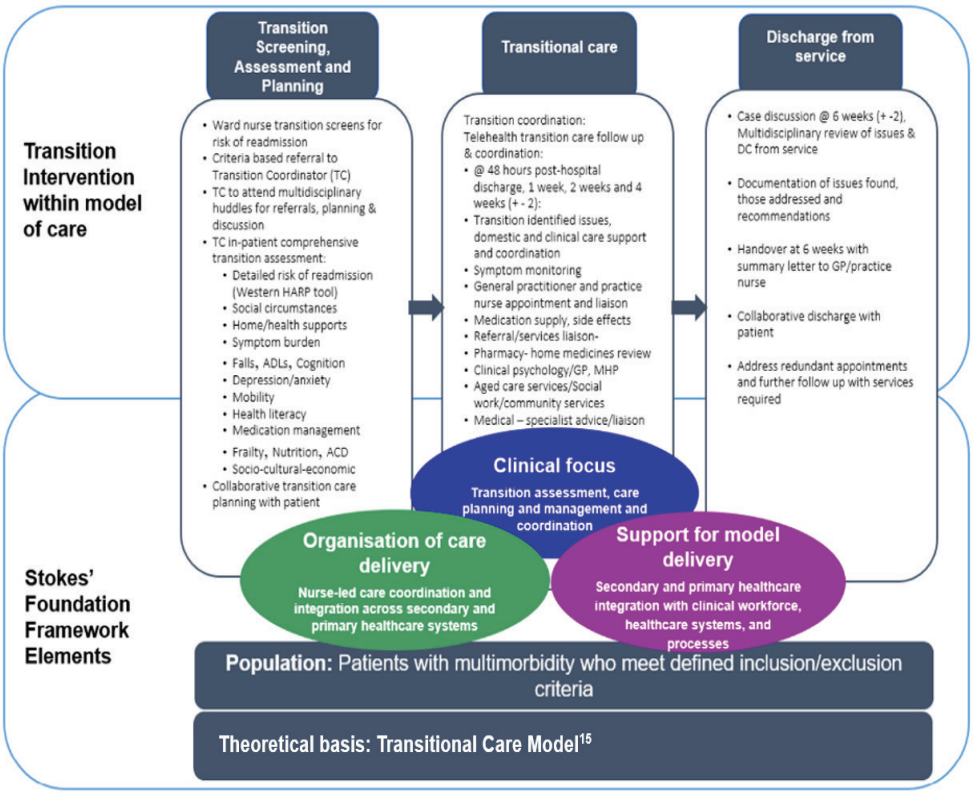

FIGURE 1. KEY COMPONENTS OF THE INTERVENTION, ALIGNED TO STOKES' FOUNDATIONS FRAMEWORK FOR DEVELOPING AND REPORTING MODELS OF CARE FOR MULTIMORBIDITY RISK OF READMISSION SCREENING, ASSESSMENT, AND PLANNING

The TC used the Western Hospital Admission Risk Profile (HARP) Risk Calculator to assess participants' risk of re-hospitalisation.22 This tool classifies risk of hospital readmission in the next 12 months as low, medium, high, or urgent based on presenting clinical symptoms, service access profile, self-management, and psychosocial issues.22 The TC also assigned participants a complexity score of low, medium, or high. Low complexity was defined as stable and self-managed multimorbidity with strong social support systems. Medium complexity was defined by socioeconomic or cultural factors, mental illness, and/or high symptom complexity without exacerbation. High complexity was defined by poorly managed multimorbidity, polypharmacy, socioeconomic or cultural factors, mental illness, and/or symptom exacerbation or instability.

TRANSITIONAL CARE COORDINATION

Following discharge, the TC provided transition coordination via telephone for 6-10 weeks, as indicated by patients' clinical stability. The first therapeutic telephone consultation between the TC and the patient or their significant other occurred within 48 hours of discharge from the hospital. This was identified as a vulnerable period for the patient by the Transition Coordinator and is consistent with previous literature.11 Subsequent phone calls were at weeks one and three from discharge, then fortnightly until the patient was stable or could be handed over to the GP/practice nurse (between six and ten weeks). During telephone calls, the TC reviewed: the TAP, symptoms, appointments attended, medication management, and domestic and health services required/accessed. The TC then undertook appropriate actions (e.g., service referral or follow-up, patient education, liaison with healthcare providers). A multidisciplinary case discussion was held four to six weeks post-hospital discharge between the TC and clinical team.

HANDOVER TO PRIMARY HEALTHCARE

Six to ten weeks post-hospital discharge the TC held a final transition discharge telephone consultation with the patient. The TC also provided the patient's GP/practice nurse with a discharge handover and letter summarising the issues identified, actions taken, and recommendations for ongoing care.

DATA COLLECTION

Transition intervention

The TC documented key information about each patient's transition in a purpose-built data collection tool using Microsoft Excel. The data collection tool included variables for: age; gender; country of birth; living situation; comorbid conditions; number of GPs, specialists, and pharmacies visited in the past 12 months; weight; total scores on baseline assessment measures; date of discharge; number

of transition issues identified; total services required and accessed; total patient, health professional, and service phone calls made; whether an advanced care directive was in place; whether a home medicines review had been performed; and total hospital readmissions. At each patient phone call, the Transition Coordinator recorded the patient's condition (improved, deteriorated, stable, unstable), symptoms present, appointments attended since last contact, medications, actions taken (e.g., contacted GP, practice nurse, pharmacist, or specialist), support services required, and reason for readmission (if applicable).

Study feasibility: patient, nursing, and multidisciplinary staff experience and acceptability

Acceptability is the perception among implementation stakeholders that a given intervention, service, or innovation is feasible; that is, acceptable, useful, or satisfactory.[17] Evaluation of the feasibility of an intervention should therefore focus on the end-user's experience. The intervention in this study included two end-user groups. The first group was the participants enrolled in the transition service, and the second group included the ward staff and multidisciplinary teams who provided their care.

Within three months of discharge from transitional care, participants completed a survey tool that assessed their experience and acceptability of the care (Assessment of Transition and Care Coordination Service Tool). The survey was developed from validated patient and health practitioner continuity of care tools and assessed patients' experiences and views of care coordination and the TC role.[23-25] The survey items developed for the purpose of the study were piloted within the research team. As an indicator of TC activity and cost, TC activity hours per patient were recorded.

Perceived acceptability of the intervention among the second group was determined informally, based on recorded observation of their collaboration and engagement with the TC.

DATA ANALYSIS

All data were entered from the data collection template into RedCAP (Research Electronic Data Capture), which is a secure web application for building and managing databases. From RedCAP, data were exported into IBM® SPSS® version 26.0, for data analysis. Due to the small sample size, descriptive analyses were performed only.

REPORTING

The study was reported using the 'the 'CONSORT' checklist for reporting a pilot or feasibility trial.[26,27]

RESULTS

STUDY PARTICIPATION

A total of 71 patients were screened for eligibility for the study, of which 21 were eligible and completed the intervention (see Figure 2).

PARTICIPANT CHARACTERISTICS

Participant characteristics are reported in Table 2. Most participants were female (67%), over 76 years of age (72%), and living alone (52%). Participants reported 3-10 comorbid chronic conditions, of which the most common were hypertension (71%), other cardiovascular (66%), renal (52%), and diabetes (47%). Most participants received a hospital readmission risk score of medium (52%) or high (38%).

INTERVENTION

Feasibility and acceptability

Twelve of the 21 participants (57%) completed the survey. Overall, a high level of perceived acceptability of transitional care and the TC role were present in the survey responses. All respondents (100%) agreed that the Transition Coordinator provided effective telephone follow-up to the additional support services required, and 67% agreed that the services needed would not have otherwise been accessed.

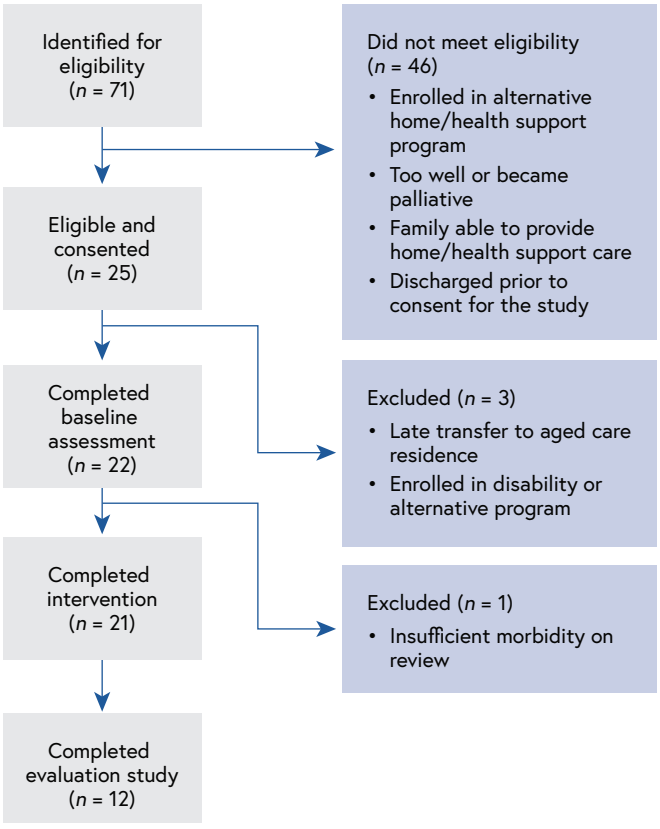

FIGURE 2. STUDY FLOW

TABLE 2. PARTICIPANT CHARACTERISTICS (*N* = 21)

Variable		n (%)
Gender	Male	7 (33)
	Female	14 (67)
Age	46-65	2 (10)
	55-75	4 (19)
	76-85	10 (48)
	86-95	4 (19)
	96-105	1 (5)
Living situation	Alone	11 (52)
	With partner	7 (33)
	With family or significant other(s)	3 (14)
Number of specialists seen in past 12 months	0	1 (5)
	1	4 (19)
	2	5 (24)
	3	4 (19)
	4	6 (29)
Number of chronic conditions	3-4	7 (33)
	5-6	8 (38)
	7-8	5 (24)
	9-10	1 (5)
Most common chronic conditions	Hypertension	15 (71)
	Other cardiovascular	14 (66)
	Renal	11 (52)
	Diabetes	10 (47)
	Hypercholesteremia	8 (38)
	Neurological	7 (33)
	Cardiac failure	7 (33)
	Metabolic/inflammatory	7 (33)
	Mental health	7 (33)
	Respiratory	4 (19)
	Pain	4 (19)
Hospital Admission Risk Profile	Low	2 (10)
	Medium	11 (52)
	High	8 (38)
Complexity	Low	2 (10)
	Medium	15 (71)
	High	4 (19)

Most respondents (92%) indicated that the Transition Coordinator effectively included family/significant others in accessing additional support services. Just over half (55%) of respondents felt the Transition Coordinator telephone conversations helped prevent a hospital readmission, and 50% agreed that they would have returned to the hospital emergency department if not contacted by the Transition Coordinator. Most (67%) respondents indicated a 6-week transitional follow-up was sufficient, however, one participant noted that allowing flexibility for a longer follow-up would benefit some individuals.

Regarding the acceptability of the technology used (telephone call), only 8% agreed they would prefer a video call, 41% indicated that they were comfortable with the technology, and 33% were unsure.

Perceived acceptability of the intervention by ward nurses, the multidisciplinary and medical teams were informally monitored and recorded as the intervention progressed. Ward nurses and the multidisciplinary and medical teams actively contacted and referred patients to the TC, included the TC in patient rounds, and discussed transition issues at multidisciplinary 'huddles'. For success and acceptability of the intervention, collaboration and cooperation with health practitioner groups was essential, and minimal barriers to collaboration were noted. The TC capitalised on organisational workflows (e.g., bed management meetings), and resources by providing information and receiving acceptability and feasibility feedback in the practice environment, through integrated meeting attendance, informal conversation, local ward signage and email.

Fidelity

The key aspects and general principles of the intervention were adhered to. However, based on the patients' clinical conditions, aspects of the intervention required minor adjustments. The first transition follow-up phone call was originally made after one week; however, this was adjusted to be made within 48 hours, due to clinical judgement that patient symptoms were too unstable to be unchecked for a week, unnecessarily exposing patients to the risk of readmission.

Flexibility was also required in the duration of the intervention, which varied from six to ten weeks. This was for several reasons. Firstly, the clinical judgement of the TC indicated that some patients were unstable and required continued monitoring. Secondly, the multidisciplinary meetings were not completely embedded to review patients for discharge. Lastly, although a process for general practitioner handover was described, it was not consistently implemented.

TABLE 3. TRANSITIONAL CARE SUPPORT SERVICES AND PHONE CALLS (*N* = 21)

Transition care elements		N (%)
Number of problems identified for Transition Action Plan	1-3	2 (10)
	4-6	4 (19)
	7-9	12 (57)
	10-11	3 (14)
Type of problem identified on Transition Action Plan	MAC/RDNS follow up	18 (85)
	Chronic Care Plan	16 (76)
	ACAT	14 (66)
	Pain	11 (52)
	Occupational Therapy	10 (47)
	Physiotherapy	9 (43)
	Medication dispensing follow up	9 (43)
	Vaccination	9 (43)
	Cardiac/fluid monitoring	9 (43)
	Respiratory/breathless	8 (38)
	Diabetes	8 (38)
	MRU/HITH	8 (38)
Number of support services identified for Transition Action Plan	1-4	1 (5)
	5-6	2 (10)
	7-8	4 (19)
	9-10	7 (33)
	>10	7 (33)
Types of home support services required	MAC	17 (81)
	ACAT	16 (76)
	Cleaning	10 (47)
	MRU	8 (38)
	Physiotherapy	8 (38)
	Occupational Therapy	8 (38)
Home medicine support	Pharmacist assessment and education	21(100)
	Home dispensing device used or needed	15 (71)
	Carer or other responsible for medications	4 (19)
	HMR performed	2 (10)

Transition care elements		N (%)
Number of services not accessed by end of transition period	0	12 (57)
	1	7 (33)
	2	2 (10)
Total readmissions within 28 days	0	16 (76)
	1	4 (19)
	2	1 (5)
Patient/significant other phone calls	3-4	9 (43)
	5-6	5 (24)
	7-8	4 (19)
	>8	3 (15)
Health practitioner phone calls	0	13 (62)
	1-2	6 (29)
	>2	2 (10)
Support service phone calls	0	11 (52)
	1-2	8 (38)
	>2	2 (10)
Advanced care directive in place prior to enrolment	Yes	9 (43)
	No and discussed with Transition Coordinator for action	12 (57)
Condition at first phone call	Improved	10 (48)
	Stable	5 (24)
	Unstable	5 (24)
	Deteriorated	1 (5)
Condition at final phone call	Improved	10 (48)
	Stable	8 (38)
	Unstable	2 (10)
	Deteriorated	1 (5)

Notes:

MAC – 'My Aged Care' aged care services provider. RDNS – Royal District Nursing Society

ACAT – 'Aged Care Assessment Team', specialised service team performing functional and cognitive assessment for the purposes of recommending in-home support services

HMR – home medicines review

MRU – Metropolitan Referral Unit. Provide assessment for short-term services such as blood glucose monitoring assistance, medication administration or activities of daily living assistance.

HITH – Hospital in the home, similar to MRU but provides longer term services.

Sustainability

Minimal barriers to implementing transitional care were evident, with early ward adoption enabling smooth service integration, indicating possible service sustainability. Staff actively contacted the TC, included the TC in patient rounds, and discussed transition issues at huddles. Due to the short duration of the trial, patient recruitment into transitional care was achieved through daily matching of patient criteria with electronic admission data. However, ward nursing staff recommended a transitional workflow improvement by using the electronic service referral process for the future.

DISCUSSION

This feasibility study trialled an integrated outpatient transition care model for people with multimorbidity. Within this model, a Transition Coordinator facilitated the transition of participants from in patient hospital care into primary care. The key model components were a comprehensive risk of readmission assessment; the development of an individualised TAP; and the coordination of patient care and support services by a Transition Coordinator, via telephone consultations, over a six-to-ten-week period post-discharge. The evidence-based intervention supported the significance of continuity of care in empowering and enabling people to self-manage their chronic conditions.[20] Feasibility was supported by the integration of the TC into ward routines, staff interactions, and support for the TC. Positive patient responses indicated acceptability of the intervention.

Participants' stability fluctuated throughout the intervention, confirming that the sample was a highly complex and vulnerable group. Yet, over the course of the intervention the number of unstable patients decreased from 24% at the first phone call to 10% at the final phone call. This suggests that the transition intervention time of 6-10 weeks was adequate and that improvement in patients' conditions was achieved, a finding supported in previous studies.[28] A level of instability in individuals with multimorbidity is to be tolerated.[29]

Transitional care demonstrated acceptability of workforce and system integration from a staff perspective, as evidenced by referral processes, clinical rounds, huddles, and collaboration. The transitional care intervention also demonstrated acceptability by utility of the HARP assessment in forecasting which patients required more support. Lastly, participants demonstrated acceptability of transitional care as indicated by high levels of agreement in survey responses regarding the value of transitional care coordination.[28] However, patients were at times readmitted without firstly advising the TC of their unwellness or deterioration, unfortunately, precluding early support to address symptoms deteriorating. This barrier to avoiding hospital admission requires further investigation and action in future studies. Other barriers to implementation included inconsistency of multidisciplinary discharge meetings and general practitioner handover. Yet, collectively, the findings point to the acceptability and feasibility of a Transition Coordinator working within a transitional care model, collaborating with ward nursing staff, medical teams, and allied health, and integrating routine readmission risk assessment into transition planning for patients with multimorbidity.

Participants deemed at greater risk of readmission based on their HARP risk score required more transition support, communication, and resources, as indicated by higher numbers of support service referrals, patient and health provider telephone calls, and Transition Coordinator nursing hours.[22] These results indicate that hospital readmission risk assessment can inform the provision of individualised support to patients with multimorbidity during transition, via the use of a TAP and regular communication with primary healthcare services. This is consistent with literature suggesting that transition interventions require adaptation to individual levels of independence and multimorbidity. For example, a 2018 study of transitional programs for people with diabetes, which included people with multimorbidity, reported that individuals with higher needs required higher home care support.[30]

Participants with more symptoms required more care coordination support. The relevance of symptoms in people with multimorbidity to clinical management and transitional support cannot be underestimated. Eckerblad's descriptive study found that patients employ a range of strategies, daily, to manage their multimorbidity symptoms, and that healthcare professionals can support these people by providing guidance on symptom management.[31] Tripp-Reimer's integrative review on symptom science and multimorbidity suggested that the interactions between condition, symptoms, and treatment require clear documentation, tracking, and management to support clinical care and outcomes.[32] Our findings suggested a link between patient symptoms, complexity, and readmission risk, although the sample size was too small for statistical analysis of this association.

The participants in this study were highly comorbid and all at risk of readmission. Presently, there is no risk of readmission assessment or transitional support service embedded within routine care to address their needs. This study implemented routine risk of readmission assessment, development of the TAP, and concurrent identification of support services required. This was a practical intervention that addressed an important gap in the transition care needs of people with multimorbidity by simply linking the patient to community services and enabling rapid access to specialist services if needed. Our findings indicate the intervention could potentially be implemented across many services given its feasibility and acceptability. Although the intervention could also be considered low-cost because it leverages existing services, cost-effectiveness needs to be determined.

A strength of the study was its use of theory to guide the research process, including Stokes' multimorbidity framework to guide the intervention development and Proctor's framework to inform evaluation of implementation outcomes. Additionally, as far as we are aware, interventions based on the TCM have not been trialled in Australia. Fidelity of the intervention was necessarily balanced with flexibility to ensure pragmatism and relevance to real-world clinical practice, thereby enabling home and hospital settings to provide realistic and increased reliability for clinical outcomes. There were also several study limitations that require consideration. The setting was a single large acute hospital, the sample size was small, and the design omitted the use of comparator groups; all of which indicate the findings cannot be generalised. Additionally, due to the small size of the study we were unable to include people with cognitive impairment. As this is a growing issue in society and healthcare, future research needs to include this population cohort. Notwithstanding these limitations, this study achieved its primary aim which was to test a transition care intervention for applicability and feasibility for routine clinical practice. The results indicate that a larger randomised controlled study, in which the intervention can be more rigorously tested and compared is warranted.

CONCLUSION

This study examined the feasibility of a telephone transitional care intervention for people with multimorbidity, a service not yet embedded within the local health network setting. The trial demonstrated acceptability, feasibility, fidelity, and sustainability: in essence, usefulness for patients and staff. Our findings suggested a link between patient symptoms, complexity, and readmission risk, although the sample size was too small for statistical analysis of this association, it merits further investigation. There is currently no process within the local health network to systematically assess risk of hospital readmission upon discharge, despite readmission in patients with multimorbidity being costly and possibly preventable. This study provided preliminary evidence to support a fundamental shift from discharge planning to transition planning for people with multimorbidity. Having identified the nursing hours required for a transitional care intervention, the acute care organisation and local health network are positioned to further trial a transitional care service and workforce model. Further research is required to determine if the intervention is cost-effective and associated with reduced rates of hospital readmission.

IMPLICATIONS FOR RESEARCH, POLICY AND PRACTICE

This study emphasises the importance of incorporating local contextualised evidence into both clinical practice and research. It showcases the potential benefits of a nurse-led transitional care approach in supporting individuals with multimorbidity as they move from hospital to community settings. This approach not only offers a potentially cost-effective solution but also enhances the continuity of care between acute and primary care settings.

A notable gap exists in the current admission process across the South Australian Local Health Networks, where there is no risk of readmission assessment for people with multimorbidity. The findings of this study underscore the urgency to further investigate transitional interventions to address this gap. Participants in the study demonstrated significant support needs during the transition period, suggesting a crucial shift is needed from traditional discharge planning to more tailored transition planning for people with multimorbidity.

Recommendations include implementing a pragmatic randomised controlled trial using an evidence-based TCM. This would quantify any association between TCM, decreased readmission rates and improved quality of life for people with multimorbidity, in the Australian context. While this model has been well-validated and supported in existing literature, its effectiveness within the Australian healthcare system remains untested.

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