Septianingrum, Y., et al. (2022). *Nurse and Health: Jurnal Keperawatan. 11 (2): 261-274*
http://ejournal-kertacendekia.id/index.php/nhjk/index

Review Article: Systematic Review, Meta-Analysis, Integrative Review, Scoping Review

CAN TRANSITIONAL CARE DECREASE READMISSION IN STROKE PATIENTS?

Yurike Septianingrum [1,2*], Siti Nurjanah [1,2], Nursalam Nursalam [1]

[1] Doctoral of Nursing, Faculty of Nursing, Universitas Airlangga
Jl. Dr. Ir. H. Soekarno, Mulyorejo, Kec. Mulyorejo, Surabaya, East Java, Indonesia 60115
[2] Nursing Department, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya
Jl. SMEA No 57, East Java, Indonesia 60282

***Correspondence:**
Yurike Septianingrum
Doctoral of Nursing, Faculty of Nursing, Universitas Airlangga
Jl. Dr. Ir. H. Soekarno, Mulyorejo, Kec. Mulyorejo, Surabaya, East Java, Indonesia 60115
Mailing Address
Email: yurike.septianingrum-2021@fkp.unair.ac.id

Article Info:
Received: October 28, 2022
Revised: November 14, 2022
Accepted: December 03, 2022

DOI:
https://doi.org/10.36720/nhjk.v11i1.434

Abstract

Background: One strategy to reduce the hospital readmission rate of stroke patients is to implement transitional care.

Objective: The aim of this study was to identify the application of transitional care to the hospital readmission rate of stroke patients.

Design: Design of this literature review was A Systematic review.

Data Sources: We searched English articles in PubMed, CINAHL, SAGE, and Science Direct databases from January 2016 to September 28, 2021. Participants in the study were adults (17 years old or older) who had transitioned from hospital to home care. The included publications were mined for information on study features and research findings.

Review Methods: The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement was followed when conducting this review. The study question and search method were developed with the aid of the PICO framework, which provides descriptions of participants, interventions, comparisons, and results.

Results: Eight articles were reviewed regarding the outcomes of implementing transitional care on readmission rates and satisfaction in stroke patients. All reviewed articles showed decreased readmission rates and increased patient satisfaction. There were some differences in the transitional care process, team coordinator, duration of transition care follow-up, and service satisfaction.

Conclusion: Our findings show that the application of transitional care has a positive impact on decreasing readmission rates before 30 days and increasing patient satisfaction with nursing care. Transitional care policies need to be considered to reduce readmission rates in an effort to improve the quality of hospital services.

Keywords: *Continuity of Care, Post-Discharge, Readmission, Satisfaction, Stroke, Transitional Care*.

E-ISSN
2623-2448
P-ISSN
2088-9909

INTRODUCTION

Stroke is the greatest cause of chronic illness and mortality in the United States, affecting about 60% of the world's population, primarily in developing nations. (Duncan et al., 2017; Kusuma et al., 2009; Venketasubramanian et al., 2017). A stroke is expected to cause 795 000 illnesses and 137 000 fatalities each year in the United States (Fonarow et al., 2010). Stroke is a condition

that strikes elderly individuals frequently and can significantly affect every day functioning and quality of life (Vluggen et al., 2020). Every year, there are more people in Indonesia suffer from strokes. In 2018, there were 2.6 million stroke victims in Indonesia, making it the country with the most fatalities (Kemenkes RI, 2018). Nearly 20% of people with stroke experience recurrence, with ischemic stroke being the most frequent type (Misbach & Ali, 2001). Three times as many acute stroke patients end up in the hospital than non-stroke patients (Baldino et al., 2021). Up to 20% of adults experience readmissions to the hospital within 30 days of receiving a medical ward release; this is a significant indicator of the quality of treatment received (Lau et al., 2016).

The cost of treating stroke patients may rise as a result of readmission incidents (Russo et al., 2017). According to estimates, readmissions account for 17% of Medicare hospital expenditures in the United States and 11% of all inpatient care costs in Canada, excluding physician fees. Greater-than-anticipated hospital readmission rates in the US may now result in financial penalties from Medicare (Lau et al., 2016). During this transitional period, a primary care provider's (PCP) engagement may be crucial. A lack of prompt PCP follow-up (within 4 weeks after discharge) has been shown to be linked to an increased risk of hospital readmission for the same condition and is likely to lead to a longer hospital stay. Patients are more likely to experience unfavorable outcomes following discharge if prescription mistakes, inadequate follow-up on unfinished tests, or lost opportunities for advised testing or outpatient procedures are present (Farford et al., 2019; Misky et al., 2010).

Hospital readmissions are caused by a variety of factors, such as comorbidities, exposure to inpatient allostatic load, and residual illness burden. These elements combine to create a "post-discharge syndrome" that momentarily raises a patient's susceptibility to unfavorable incidents. The capacity of the transitional caring (TC) team to lessen this susceptibility is correlated with the probability of developing post-discharge syndrome (Baldino et al., 2021). The inability of families to care for patients, poor communication between patients, families, and service providers, non-adherence to medicine taking, missing control regimens, and difficulty accessing home care are all factors that lead to repeated readmissions (Prusaczyk et al., 2019; Puhr & Thompson, 2015).

Healthcare executives and providers have improved their understanding of how the care transition process can improve patient care and patient safety during the past ten years. A patient's sustained connectedness to the medical team is ensured via targeted interventions used throughout the hospital stay and continuing after discharge. It's interesting to note that research by specialists in health policy has revealed that bad transitions have a significant role in low quality and waste (Carr, 2017).

Transitional caring (TC) is one of the comprehensive and integrated nursing management that can reduce the readmission rate (Duncan et al., 2017; Nkemdirim Okere et al., 2020). Transitional care is expected to improve communication between health workers, patients, and their families during the transition from hospital to home (Geng et al., 2019; Puhr & Thompson, 2015). Some literature shows the effectiveness of TC in reducing the readmission (Baldino et al., 2021; Ballard et al., 2018; Condon et al., 2016; Lin et al., 2021), improving the patient outcome (Markle-Reid et al., 2020; Reeves et al., 2019; Santana et al., 2017), and increasing the service satisfaction (Duncan et al., 2020; Eichner et al., 2021). The review was conducted to see outcomes that focused on the management of health services in general, not on patient outcomes because the indications that had to be measured were numerous and complex. The purpose of this literature review is to identify the application of transitional care to reduce readmission rates and increase satisfaction in stroke patients.

METHODS

Design

This literature design is a systematic review, to identify the application of transitional care to hospital readmission and stroke patient satisfaction. PICO criteria (Population, Intervention, Comparison, and Outcome) were used to develop eligibility criteria for study inclusion and exclusion in quantitative reviews (Eriksen & Frandsen, 2018). The population in this study is stroke survivors, intervention is transitional care which is compared with usual care, and outcomes are hospital readmission

Search Methods

The phrases "discharge planning," "hospital discharge," "discharge care pathways," "discharge care protocols," "follow-up after discharge", "transitional care," "continuity of care", and "transitional care pathways" were used in a search for peer-reviewed journal papers. To create concept groups, these terms were added to the phrase "from the inpatient environment to the home." Additionally, these concept groups were coupled with stroke", "cerebrovascular accidents", "acute stroke", "readmission", and "re-hospitalization". Five databases were searched: CINAHL, Scopus, PubMed, Science Direct, and SAGE.

Inclusion criteria

1. Types of participants: Adults with stroke (over 17 years old) in all stages following stroke
2. Types of outcome measures: readmission and satisfaction
3. Types of interventions: transitional care intervention
4. Publication year: limited to the last five years from January 2016 to September 28, 2021
5. Language: articles published in English

Articles were added to a Mendeley database for screening, and duplicates were eliminated. To find studies that met the inclusion criteria, two reviewers independently skimmed each study's title and abstract. Records from the full-text journal article were filtered out if their relevance could not be determined just by their title and abstract. The consensus was reached by reviewers when there was disagreement over whether a piece was relevant enough to be included.

Search Outcome

The first 768 titles from the search results were filtered based on the title and abstract. The eligibility of the remaining 157 articles was determined after reading the entirety of each one. Nineteen articles were included in the review after duplicates were eliminated. The PRISMA diagram in the figure presents the article selection procedure and outcomes (Figure 1).

Quality Appraisal

The methodological quality of the obtained articles (n = 8) was evaluated independently by authors and observed using the Joanna Briggs Institute (JBI) Critical Assessment. The paper will be included for additional data synthesis if the final methodological quality assessment score reaches a minimum of 75%, it meets the crucial assessment criteria. all articles (n = 8) received scores of more than 75%, indicating that they were prepared for data synthesis.

Data Abstraction

On a data extraction form, the following details were recorded: the author's name, the year the study was conducted, the sample size, the facilitator, the intervention and control, method use, intervention duration, and the outcomes. The final dataset was examined in terms of 1) the transitional care process, 2) the team coordinator, 3) the duration of transition care follow-up, and 4) service satisfaction.

RESULTS

The initial search returned 768 titles from references in the review of the search. Of these 157 were entered for full-text review leading to

the inclusion of 19 papers (Table 1). Of the 19 papers, only 8 were reviewed based on the desired outcome. Of the eight papers, three of them used an RCT study design, one prospective, two retrospective, one quasi-experimental, and one clinical trial. The authors did not specify the study design used because the authors wanted to compare the application of transitional care in general.

DISCUSSION

Transitional Care Process

Transitional care is a structured set of nursing processes designed to prepare patients and their families after discharge from the hospital (Condon et al., 2016; Puhr & Thompson, 2015). Some of the transition care processes are described in the reviewed articles. Lin et al (2021) describe the transitional care process based on six components, namely (1) the setting of transitional care goals; (2) improvement and improve self-care skills; (3) modification of the home environment; (4) improving physical function; (5) drug management; and (6) the management and prevention of stroke side effects (Lin et al., 2021). Meanwhile, Condon et al. (2016) divided transitional care into two phases, namely: (1) implementing structured follow-up telephone calls by nurses for high-risk patients to be re-admitted within 7 days after discharge; phase (2) the nurse initiates a structured TC visit, which includes stroke education, secondary prevention, functional recovery, medication adherence, and evaluation for post-stroke complications (Condon et al., 2016).

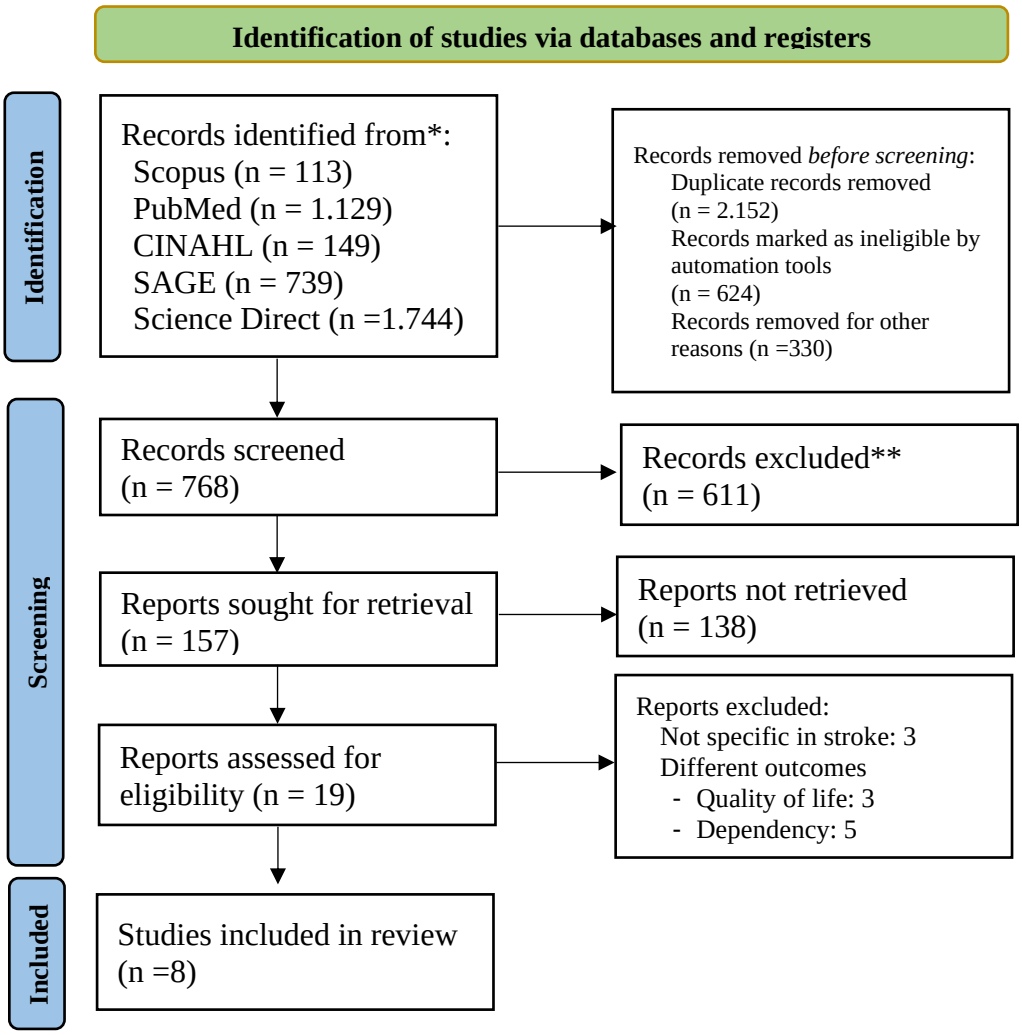

Figure 1. Flow diagram of the study

Table 1. Risk assessment of bias using the JBI critical assessment checklist

No	Author, year	Percentage	Quality
1	Lin *et al.* (2021)	92,31%	Good
2	Condon *et al.* (2016)	75%	Good
3	Ballard *et al.* (2018)	90,9%	Good
4	Duncan *et al.* (2020)	81,82%	Good
5	Leonhardt-Caprio *et al.* (2021)	77,78%	Good
6	Kitzman *et al.* (2017)	92,31%	Good
7	Eicner *et al.* (2021)	84,62%	Good
8	Okere *et al.* (2020)	90,9%	Good

Table 2. Characteristics of studies

Author, year, design	Sample size	Facilitator	Intervention	Control/usual care	Method and Duration	Outcome
(Lin et al., 2021), RCT	140 patients (dyad) and caregiver	Nurse	Health coaching program	Traditional discharge planning: verbal health education before discharge and two follow-up telephone calls after discharge	*Methods:* Establishing transitional care objectives, enhancing and strengthening self-care abilities, changing the home environment, enhancing physical function, managing medications, and managing and preventing stroke-related side effects. *Duration:* 12 weeks and 24 weeks follow-up.	During the 24-week follow-up, the intervention group showed a statistically significant reduced risk of unplanned hospital readmissions than the standard care group (5.7% vs. 20%, p = 0.01).
(Condon et al., 2016), a prospective pre- and post-study	510 stroke patients	Nurse practitioner	nurse practitioner (NP)–led Transitional Stroke Clinic (TSC)	Prior to TCM, stroke/TIA patients who were sent home after being treated in a clinic only had a clinic visit with a nurse practitioner (NP) every four to twelve weeks, and these NP appointments	*Methods:* Only high-risk patients who were sent home within a week and had an office visit between two to four weeks of discharge were called by nurse practitioners. All patients who were sent home under this phase received a follow-up phone call from a registered nurse within two days, as	Patients readmitted within 30 days were less likely to show for TSC visits (60.85% versus 76.3%; P=0.021). Multivariable modeling showed that TSC visit was associated with a 48% reduction in 30-day readmission (OR, 0.518; 95%

Author, year, design	Sample size	Facilitator	Intervention	Control/usual care	Method and Duration	Outcome
				were not scheduled.	well as a follow-up appointment with a nurse practitioner within seven to fourteen days. *Duration:* 2-4 weeks and 90 days follow-up.	confidence interval, 0.272–0.986), whereas multiple chronic conditions and previous stroke/transient ischemic attack increased the risk. TSC visit did not affect 90-day readmissions.
(Ballard et al., 2018), a retrospective cohort study	1884 stroke patients	a certified medical assistant	Transitional Care Management	-	*Methods:* Phase I: The NP began calling patients who were at high risk of readmission in a systematic manner. In Phase II, the structured follow-up phone calls were resumed, but TCM was performed by an RN within two business days after discharge as opposed to the RN who handled it in Phase I. *Duration:* 7-14 days.	Even in circumstances with low readmission rates from the admission index (less than 4% readmission), where it may be very difficult to discern differences related with TCM, TCM programs in primary care settings can lower readmission rates for patients.
(Duncan et al., 2020), a randomized pragmatic trial	A total of 6024 adult stroke patients	nurse	Comprehensive Post- Acute Stroke Services-Transitional Care (COMPASS-TC)	Usual care	*Methods:* After being released from the hospital, a call will be made within two business days, and a clinic visit is scheduled for seven to fourteen days afterwards. *Duration:* 7-14 days.	At 90 days after discharge, the intervention's impact on functional status was negligible.
(Leonhardt-Caprio et al., 2021), a quasi-experimental	25 stroke patients	nurse	Transition of care model	Usual care	*Methods:* The time for making a post-discharge phone call was reduced from seven to three days after discharge.	a large decrease in 30-day all-cause readmission rates for IS patients who were released

Author, year, design	Sample size	Facilitator	Intervention	Control/usual care	Method and Duration	Outcome
					Duration: 7 days.	home after receiving an evidence-based bundled process improvement intervention. Ratings of patient satisfaction increased during the project's duration.
(Kitzman et al., 2017), clinical trial	30 stroke survivors	nurse	The Kentucky Care Coordination for Community Transitions (KC3T)	Usual care	*Methods:* In order to support transitions from acute care to the community, it is important to first identify the types of resources used, such as healthcare plans, medication waiver programs, durable medical equipment (DME), and follow-up education. Next, you should identify the participants in the program's 30-day hospital readmission rates and ED visits, as well as their compliance with their medication regimens, doctor appointments, and outpatient rehabilitation visits. Finally, you should identify how well they are using their ED visits. *Duration:* 3 months.	There is no return to care for stroke patients, as demonstrated by the implementation of transitional care, which focuses on enhancing communication between patients and medical personnel.
(Eichner et al., 2021), cluster randomized controlled trial	30 clusters with 2790 patients (93 per cluster).	General Practitioners	'Strukturierte ambulante Nachsorge nach Schlaganfall' (SANO)	Usual care	*Methods:* Hospital visits one, three, six, and nine months following a stroke to offer additional	94 % overall expressed happiness or very pleased with the organization

Author, year, design	Sample size	Facilitator	Intervention	Control/usual care	Method and Duration	Outcome
					assistance in achieving the modification of cardio vascular risk factors. *Duration:* 14 days.	conducting the exam. Additionally, 95% of the patients thought the questionnaire was well-understood or extremely well-understood. The doctor who was contacted provided feedback that was mostly positive.
(Nkemdirim Okere et al., 2020a), a retrospective cohort study	356,134 acute ischemic stroke patients	clinicians	Continuity of Care (CoC)	Usual care	*Methods:* Unclear. *Duration:* 30 days.	Patients in CoC experienced significantly less all-cause re-admission as compared to the control group. Those on CoC experienced a statistically significant decrease in all-cause in-hospital mortality as compared to patients in the control group.

Ballard et al. (2018) describe the transitional care model (TCM) includes communication (phone calls) within 2 working days, follow-up scheduling, education, and assessment of medication adherence for patients after discharge from the hospital (Ballard et al., 2018). Leonhardt-Caprio et al. (2021) implemented a TC process by completing post-discharge telephone calls within 7 days changed to 3 days after discharge. The call was completed by the inpatient ACC in the nursing unit. Phone call content is standardized through the use of narrative scripts (Leonhardt-Caprio et al., 2021). The entire TC process starts from preparing the patient to leave the hospital, and then continues with follow-up care through phone calls and home visits, this process is comprehensive and integrated.

The term "transitional care" (TC) refers to a healthcare intervention that aims to ensure continuity of care for patients when they move from one place to another (Coleman & Berenson, 2004). Reducing unexpected readmissions and emergency visits is TC's main goal. The intervention of transitional care comprises resolving the issues brought on by system fragmentation and socioeconomic disadvantages by boosting cross-site and interdisciplinary communication, standardizing care protocol, and improving the transitional care training (Lang & Ang, 2016).

All participants in the care transition process, including the patient, are process owners. Team collaboration, communication, and coordination are recurring themes throughout the interdisciplinary process. A network of support is created for the time after release when patients and caregivers are included in the interdisciplinary team process during the stay. Engagement between the patient and caregiver may start at the emergency department (ED), depending on the patient's condition, but it should surely happen once the patient is admitted. Although a variety of practices based on the concepts of transitional care can lower the risk of both short- and long-term readmission, no single transitional care activity has been demonstrated to effectively minimize hospital admissions (Carr, 2017; Cobler et al., 2017).

Transitional Care Coordinator

Transitional care is an activity that involves many health workers related to patient care. Some articles mention that the team coordinator is led by a nurse (Ballard et al., 2018; Condon et al., 2016; Duncan et al., 2017; Leonhardt-Caprio et al., 2021; Lin et al., 2021). Nurses as team coordinators have an important role in maintaining communication with patients and families, as well as follow-up by telephone and home visits to see patient progress as a form of readmission prevention. Several articles mention that TC is led by another health worker who is called a community care worker (Kitzman et al., 2017), general practitioner (GP) (Eichner et al., 2021), and doctor (Baldino et al., 2021; Nkemdirim Okere et al., 2020).

Across the care continuum, registered nurses are successful in coordinating care for various populations in a number of settings. Adults with stroke, disabled people with functional limitations, adults residing in skilled nursing institutions, and adults with chronic or severe conditions are some of the populations. The important role played by Registered Nurses in delivering care coordination as an intervention for people, families, and communities is one of the essential elements of these effective models (Swan et al., 2019). The TC team was led by a registered nurse (RN) project manager, who was also entrusted with keeping track of results. The project manager played a key role in (a) setting up workflows, (b) producing reports, (c) organizing the team's tasks, and (d) forging connections with post-acute facilities and community providers (Dizon & Reinking, 2017).

A registered nurse outpatient case manager was hired for patients who were sent home, and she acquired training in and comprehension of the Coleman Model in order to support care continuity, communicate with community clinicians, and coach patients in

identifying and managing symptoms (Dizon & Reinking, 2017). The nurse's role as coordinator of transitional care is very important because it is nurses who understand the needs of stroke patients during the transition period. Nurses, patients and families who are directly involved in transitional care to improve patients' quality of life.

Readmission rate

After the application of TC there was a decrease in the readmission rate compared to the control group (Lin et al., 2021), or compared with usual care applied before TC (Condon et al., 2016; Leonhardt-Caprio et al., 2021). According to a study by Ballard (2018), even in situations with low readmission rates from index hospitalization (less than 4% readmitted), implementing a TCM program in a primary care context can lower readmission rates for patients (Ballard et al., 2018).

Even the research of Kitzman et al. (2017) showed that the application of transitional care by focusing on improving communication between patients and health workers showed that there was no return to care for stroke patients. Follow-up readmission was carried out before 30 days, 90 days, and 6 months. All articles show a decrease in the readmission rate before 30 days (Baldino et al., 2021; Ballard et al., 2018; Condon et al., 2016; Leonhardt-Caprio et al., 2021; Lin et al., 2021; Nkemdirim Okere et al., 2020), but not effective follow-up within 90 days (Condon et al., 2016).

Care satisfaction

Overall TC is proven to increase service satisfaction compared to the control group who did not receive TC (Duncan et al., 2017). Almost all patients and families (94%) stated that they were satisfied or very satisfied with TC and gave positive feedback.

CONCLUSION

Despite current evidence that transitional care can reduce readmission rates and improve stroke patient and family satisfaction, currently, transitional care has not been practiced in Indonesia. This study has several limitations, including some articles that do not explain the transitional care process clearly, and the role of the care coordinator in the transitional care process. Input from neurology nurses is very much needed in establishing transitional care guidelines for stroke patients because currently most of the transition care has never been implemented in Indonesia. So far, nurses carry out discharge planning when patients enter the hospital, during treatment, and before going home, but there has never been a continuation of care after the patient has gone home. Home care that is carried out is also not integrated with previous care, so not all stroke patients get home care because the cost of home care is quite large. With this data, hospitals, especially the Stroke Unit, can formulate policies regarding the implementation of transitional care.

ACKNOWLEDGMENT

The authors thank the Faculty of Nursing Universitas Airlangga and Universitas Nahdlatul Ulama Surabaya for the facilities in this study.

DECLARATION OF CONFLICTING INTEREST

The authors declare there is no conflict of interest in this study

FUNDING

This study does not receive funding from any party

AUTHOR CONTRIBUTION

Yurike Septianingrum: Searching for articles in electronic databases, filtering articles by title and abstract, reviewing full-text articles, compiling manuscripts.

Siti Nurjanah: Filtering articles by title and abstract, reviewing full-text articles, reviewing manuscripts.

Nursalam Nursalam: Decide which articles are included in the review, review full-text articles, review manuscripts.

ORCID
Yurike Septianingrum
https://orcid.org/0000-0002-7206-6389

Siti Nurjanah
https://orcid.org/0000-0001-6936-3713

Author 3
https://orcid.org/0000-0002-9052-6983

REFERENCES

Baldino, M., Bonaguro, A. M., Burgwardt, S., Lombardi, A., Cristancho, C., Mann, C., Wright, D., Jackson, C., & Seth, A. (2021). Impact of a Novel Post-Discharge Transitions of Care Clinic on Hospital Readmissions. *Journal of the National Medical Association*, *113*(2), 133–141. https://doi.org/10.1016/j.jnma.2020.07.018

Ballard, J., Rankin, W., Roper, K. L., Weatherford, S., & Cardarelli, R. (2018). Effect of Ambulatory Transitional Care Management on 30-Day Readmission Rates. *American Journal of Medical Quality*, *33*(6), 583–589. https://doi.org/10.1177/1062860618775528

Carr, D. D. (2017). High-Quality Care Transitions Promote Continuity of Care and Safer Discharges What Are Care Transitions ? *Journal of the New York State Nurses Association*, *46*(2), 4–11. https://doi.org/10.1093/geront/gnxl52.

Cobler, J., Wang, G., Stout, C., Piejak, J., & Rodts, M. F. (2017). Information Sharing: Best Practices That Support Transitions in Care. *Orthopaedic Nursing*, *36*(1), 36–44. https://doi.org/10.1097/NOR.0000000000000310

Coleman, E. A., & Berenson, R. A. (2004). Lost in transition: Challenges and opportunities for improving the quality of transitional care. *Annals of Internal Medicine*, *141*(7), 533–536. https://doi.org/10.7326/0003-4819-141-7-200410050-00009

Condon, C., Lycan, S., Duncan, P., & Bushnell, C. (2016). Reducing Readmissions after Stroke with a Structured Nurse Practitioner/Registered Nurse Transitional Stroke Program. *Stroke*, *47*(6), 1599–1604. https://doi.org/10.1161/STROKEAHA.115.012524

Dizon, M. L., & Reinking, C. (2017). Reducing Readmissions: Nurse-Driven Interventions in the Transition of Care From the Hospital. *Worldviews on Evidence-Based Nursing*, *14*(6), 432–439. https://doi.org/10.1111/wvn.12260

Duncan, P. W., Bushnell, C. D., Jones, S. B., Psioda, M. A., Gesell, S. B., D'Agostino, R. B., Sissine, M. E., Coleman, S. W., Johnson, A. M., Barton-Percival, B. F., Prvu-Bettger, J., Calhoun, A. G., Cummings, D. M., Freburger, J. K., Halladay, J. R., Kucharska-Newton, A. M., Lundy-Lamm, G., Lutz, B. J., Mettam, L. H., … Rosamond, W. D. (2020). Randomized Pragmatic Trial of Stroke Transitional Care: The COMPASS Study. *Circulation: Cardiovascular Quality and Outcomes*, *13*(June), 322–332. https://doi.org/10.1161/CIRCOUTCOMES.119.006285

Duncan, P. W., Bushnell, C. D., Rosamond, W. D., Jones Berkeley, S. B., Gesell, S. B., D'Agostino, R. B., Ambrosius, W. T., Barton-Percival, B., Bettger, J. P., Coleman, S. W., Cummings, D. M., Freburger, J. K., Halladay, J., Johnson, A. M., Kucharska-Newton, A. M., Lundy-Lamm, G., Lutz, B. J., Mettam, L. H., Pastva, A. M., … Vetter, B. (2017). The Comprehensive Post-Acute Stroke Services (COMPASS) study: Design and methods for a cluster-randomized pragmatic trial. *BMC Neurology*, *17*(1), 1–13. https://doi.org/10.1186/s12883-017-0907-1

Eichner, F. A., Schwarzbach, C. J., Keller, M., Haeusler, K. G., Hamann, G. F., Sander,

D., Audebert, H. J., Gröschel, K., Geis, D., von Bandemer, S., Rücker, V., Schutzmeier, M., Heuschmann, P. U., Grau, A., Bäzner, H., Binder, A., Eicke, M., Fassbender, K., Fink, G., … Wöhrle, J. (2021). Trial design and pilot phase results of a cluster-randomised intervention trial to improve stroke care after hospital discharge – The structured ambulatory post-stroke care program (SANO). *European Stroke Journal*, *6*(2), 213–221. https://doi.org/10.1177/2396987320910596

Eriksen, M. B., & Frandsen, T. F. (2018). The impact of PICO as a search strategy tool on literature search quality: A systematic review. *Journal of the Medical Library Association*, *106*(4), 420–431. https://jmla.pitt.edu/ojs/jmla/article/view/345/726

Farford, B., Pantin, S. A., Presutti, J., & Ball, C. S. (2019). Evaluation of a family medicine transitional care service line. *Journal of the American Board of Family Medicine*, *32*(4), 619–627. https://doi.org/10.3122/jabfm.2019.04.180272

Fonarow, G. C., Reeves, M. J., Zhao, X., Olson, D. M., Smith, E. E., Saver, J. L., & Schwamm, L. H. (2010). Age-related differences in characteristics, performance measures, treatment trends, and outcomes in patients with ischemic stroke. *Circulation*, *121*(7), 879–891. https://doi.org/10.1161/CIRCULATIONAHA.109.892497

Geng, G., He, W., Ding, L., Klug, D., & Xiao, Y. (2019). Impact of transitional care for discharged elderly stroke patients in China: an application of the Integrated Behavioral Model. *Topics in Stroke Rehabilitation*, *26*(8), 621–629. https://doi.org/10.1080/10749357.2019.1647650

Kemenkes RI. (2018). *Infodatin: Stroke Don't Be The One* (p. 10). Kementerian Kesehatan Republik Indonesia.

Kitzman, P., Hudson, K., Sylvia, V., Feltner, F., & Lovins, J. (2017). Care Coordination for Community Transitions for Individuals Post-stroke Returning to Low-Resource Rural Communities. *Journal of Community Health*, *42*(3), 565–572. https://doi.org/10.1007/s10900-016-0289-0

Kusuma, Y., Venketasubramanian, N., Kiemas, L. S., & Misbach, J. (2009). Burden of stroke in Indonesia. *International Journal of Stroke*, *4*(5), 379–380. https://doi.org/10.1111/j.1747-4949.2009.00326.x

Lang, D. S. P., & Ang, E. N. K. (2016). Transitional Care is Feasible and Safe for Adult Cancer. *Singapore Nursing Journal*, *43*(1), 2–6. http://search.ebscohost.com/login.aspx?direct=true&db=cin20&AN=119422608&site=ehost-live

Lau, D., Padwal, R. S., Majumdar, S. R., Pederson, J. L., Belga, S., Kahlon, S., Fradette, M., Boyko, D., & McAlister, F. A. (2016). Patient-Reported Discharge Readiness and 30-Day Risk of Readmission or Death: A Prospective Cohort Study. *American Journal of Medicine*, *129*(1), 89–95. https://doi.org/10.1016/j.amjmed.2015.08.018

Leonhardt-Caprio, A. M., Sellers, C. R., Palermo, E., Caprio, T. V., & Holloway, R. G. (2021). A Multi-Component Transition of Care Improvement Project to Reduce Hospital Readmissions Following Ischemic Stroke. *Neurohospitalist*. https://doi.org/10.1177/19418744211036632

Lin, S., Xiao, L. D., Chamberlain, D., Ullah, S., Wang, Y., Shen, Y., Chen, Z., & Wu, M. (2021). Nurse-led health coaching programme to improve hospital-to-home transitional care for stroke survivors: A randomised controlled trial. *Patient Education and Counseling*, *xxxx*, 1–9. https://doi.org/10.1016/j.pec.2021.07.020

Markle-Reid, M., Valaitis, R., Bartholomew,

A., Fisher, K., Fleck, R., Ploeg, J., & Salerno, J. (2020). An integrated hospital-to-home transitional care intervention for older adults with stroke and multimorbidity: A feasibility study. *Journal of Comorbidity*, *10*, 2235042X1990045. https://doi.org/10.1177/2235042x19900451

Misbach, J., & Ali, W. (2001). Stroke in Indonesia: A first large prospective hospital-based study of acute stroke in 28 hospitals in indonesia. *Journal of Clinical Neuroscience*, *8*(3), 245–249. https://doi.org/10.1054/jocn.1999.0667

Misky, G. J., Wald, H. L., & Coleman, E. A. (2010). Post-hospitalization transitions: Examining the effects of timing of primary care provider follow-up. *Journal of Hospital Medicine*, *5*(7), 392–397. https://doi.org/10.1002/jhm.666

Nkemdirim Okere, A., Sanogo, V., Balkrishnan, R., & Diaby, V. (2020). A quantitative analysis of the effect of continuity of care on 30-day readmission and in-hospital mortality among patients with acute ischemic stroke. *Journal of Stroke and Cerebrovascular Diseases*, *29*(9), 1–10. https://doi.org/10.1016/j.jstrokecerebrovasdis.2020.105053

Prusaczyk, B., Kripalani, S., & Dhand, A. (2019). Networks of hospital discharge planning teams and readmissions. *Journal of Interprofessional Care*, *33*(1), 85–92. https://doi.org/10.1080/13561820.2018.1515193

Puhr, M. I., & Thompson, H. J. (2015). The use of transitional care models in patients with stroke. *Journal of Neuroscience Nursing*, *47*(4), 223–234. https://doi.org/10.1097/JNN.0000000000000143

Reeves, M. J., Fritz, M. C., Woodward, A. T., Hughes, A. K., Coursaris, C. K., Swierenga, S. J., Nasiri, M., & Freddolino, P. P. (2019). Michigan stroke transitions trial: A clinical trial to improve stroke transitions. *Circulation: Cardiovascular Quality and Outcomes*, *12*(7), 1–12. https://doi.org/10.1161/CIRCOUTCOMES.119.005493

Russo, A. N., Sathiyamoorthy, G., Lau, C., Saygin, D., Han, X., Wang, X. F., Rice, R., Aboussouan, L. S., Stoller, J. K., & Hatipoğlu, U. (2017). Impact of a post-discharge integrated disease management program on COPD hospital readmissions. *Respiratory Care*, *62*(11), 1392–1402. https://doi.org/10.4187/respcare.05547

Santana, S., Rente, J., Neves, C., Redondo, P., Szczygiel, N., Larsen, T., Jepsen, B., & Langhorne, P. (2017). Early home-supported discharge for patients with stroke in Portugal: A randomised controlled trial. *Clinical Rehabilitation*, *31*(2), 197–206. https://doi.org/10.1177/0269215515627282

Swan, B. A., Haas, S., & Jessie, A. T. (2019). Care coordination: Roles of registered nurses across the care continuum. *Nursing Economic*, *37*(6), 317–323.

Venketasubramanian, N., Yoon, B. W., Pandian, J., & Navarro, J. C. (2017). Stroke epidemiology in south, east, and south-east asia: A review. *Journal of Stroke*, *19*(3), 286–294. https://doi.org/10.5853/jos.2017.00234

Vluggen, T. P. M. M., Van Haastregt, J. C. M., Tan, F. E. S., Kempen, G. I. J. M., Schols, J. M. G. A., & Verbunt, J. A. (2020). Factors associated with successful home discharge after inpatient rehabilitation in frail older stroke patients. *BMC Geriatrics*, *20*(1), 1–8. https://doi.org/10.1186/s12877-020-1422-6

Cite this article as: Septianingrum, Y., Nurjanah, S., Nursalam, N. (2022). Can transitional care decrease readmission in stroke patients?. Nurse and Health: Jurnal Keperawatan, 11 (2), 261-274. https://doi.org/10.36720/nhjk.v11i1.434