Nursing handover between secondary and primary care:

An integrative review

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Abstract

The purpose of this study is to conduct an integrative review of the handover process between secondary and primary care, and the impact this transition has on patient care. The handover process between health professionals is an essential factor in safe patient care. In current clinical practice, the patient handover process between secondary and primary care is suboptimal. Improvements in the handover process will result in a significant improvement in patient safety and reduction in readmissions. Background is provided in order to place the research within the context of the author's personal nursing practice.

Keyboard searches were performed across multiple electronic databases, the common topic being the handover process between secondary and primary care. Research articles retrieved were examined for commonality and included mixed methods studies, systematic reviews, dissertations and qualitative analysis studies. Fifteen studies were included in the integrative review, from which six broad themes relating to the handover process were extracted. These themes were patient centeredness, the information transfer process, communication between health professionals, the discharge letter as the sole handover tool, shared systems, records and processes, and finally the impact of professional relationships.

Lack of standardisation was consistently demonstrated in the handover process between secondary and primary healthcare. It was further identified from the research articles that the handover process was frequently sub-optimal. Recommendations include formal development and teaching of a standardised handover process across all healthcare disciplines, improving communication and processes inter-organisationally, the establishment of a single point of contact for a given handover and the embracing of technological advances.

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Chapter One

"Handovers are high-risk scenarios for patient safety. In the end, patients will be safer only when clinicians are engaged and leading the change required around handovers" (Johnson, Barack & Arora, 2011, p. S111).

The process of nursing handover[1] continues to be a topical subject amongst health professionals, and numerous processes, tools and guidelines have been and continue to be developed to assist nurses with the process of exchange of patient[2] information that is essential to provide seamless care between health providers (Bowles, Pham, O'Connor & Horowitz, 2010). This integrative review focuses on the handover process when the patient transfers from one level of care to another, such as from secondary to primary care. This study will use the integrative review methodology to select research articles that will identify themes in current clinical practice. Further analysis of these themes will be discussed, resulting in recommendations for improvement.

Chapter One outlines the aims and focus of this study and also sets out the integrative review process. Case scenarios are employed in order to highlight current practice and identify areas for improvement. Further background to the topic is provided along with self-positioning discussion that demonstrates the author's prompts and reasons for the research.

Purpose

This integrative review will examine the similarities and discrepancies currently occurring in clinical handover practice, identifying gaps in communication that impact

[1] Handover - the transfer of information occurring when the responsibility and accountability for the patient care shifts.

[2] Patient - an interchangeable term with client, consumer and customer.

in patient care, in order to provide methods to improve the patient's journey as they transition within the healthcare system between secondary and primary healthcare.

Aim

This integrative review aims to provide a comprehensive analysis of the communication and exchange of patient information between secondary and primary healthcare during patients' episodes of care,[3] answering the research question how can the clinical handover between secondary and primary healthcare nursing staff be improved with the goal being seamless transition of patient care?

This resulted in the central hypothesis for this integrative review, that there is little-to-no systematic handover process, either verbal or written, applied to discharge planning between secondary and primary services, and that a systematic approach to discharge planning would improve patient transition of care and ultimately, provide improved outcomes for the patient.

Inherent Assumptions

A recurring assumption in healthcare seems to be that the terms discharge planning and nursing handover are used interchangeably, and that there is a general assumption that performing just one of these is sufficient. However, optimal patient care requires, from the secondary care[4] team, both effective discharge planning and

[3] Episode of care - one health event for a patient, for example cardiac surgery, where the health care provided commences as an inpatient in a hospital and concludes once the wounds have healed, overseen or attended to by the district nurse.

[4] Secondary Healthcare - health professionals who work in an inpatient facility - for the purposes of this proposal, generally considered to be working in a hospital setting.

handover of care to the primary health care[5] professional.

It is further assumed that nurses want to establish effective communication avenues so patient care can be transferred safety and comprehensively (Smith & Alexander, 2012), and that one of the primary reasons that this is not occurring is that there is currently no consistent model for the transfer of information in place.

Background

"An accurate handover of clinical information is essential to ensure continuity of care and patients safety" (Smeulers, Lucas & Vermeulen, 2014, p. 2). Accuracy in handovers should be standard practice between health professionals intra or inter organisation, including both staff handover and discharge planning (Arora & Farnan, 2008; Boling, 2009). There are many styles and types of handover, each organisation and speciality adapting the process to best suit their specific needs. The handover of the patient care process is well established in nursing culture in the inpatient setting, and amongst nurses handover is seen as an essential part of optimal patient care (Scovell, 2010; Smeulers et al., 2014). One of the six priorities of the World Health Organisation in the field of patient safety is that of improving communication and co-ordination between health care organisations (World Health Organisation, 2009).

The three key personnel/persons involved in handover of care are the patient, the referrer and the referee (Groene, Orrego, Sunol, Barach & Groene, 2012). For the patient, their journey through the healthcare system can be perilous, often leaving them vulnerable, uncertain and confused (Berendsen, de Jong, Meyboom-de Jong, Dekker & Schuling, 2009; Bodenheimer, 2008). Whilst it is an expectation of the patient that an appropriate clinical handover has occurred and that all involved health

[5] Primary Healthcare - health professionals who work in the community - in terms of this proposal, this is the district nurse, however there are numerous other professionals who work in this area, such as practice nurses, aged care nurses.

professionals in their care have the necessary information, in reality this often is not the case (Flink, Öhlén, Hansagi, Barach & Olsson, 2012). Clinical handover of care ideally occurs any time there is a change in the main healthcare provider - whether that be between nurses on a ward, or from one organisation to another (Jefferies, Johnson & Nicholls, 2012). When considering the transition between secondary and primary care, such as a patient discharging from hospital and requiring district nursing care, it is important to note that the patient often does not see themselves as changing health care providers, as they have the same illness and needs whether they are in an inpatient facility or at home (Hesselink et al., 2012). This results in confusion for the patient when they encounter the expectation amongst health professionals that the patient will transfer information regarding their healthcare to their next healthcare provider (Groene et al., 2012, Kessels, 2003). Further complicating factors are that often one patient will be seen by multiple health care professionals at the secondary level, as healthcare becomes more specialised, compounding the complexity of correct and timely information being received by the patient's primary health care provider (Reid & Wagner, 2008).

The Health and Disability Commissioner has been involved in numerous cases where it has been determined that patient rights have been breached, in that communication or the lack thereof between health professionals was the primary cause of this breach (Health and Disability Commissioner, 2014). Yao et al. (2012) concluded that one third of adverse events that followed discharge from secondary care could be avoided if the handover process was improved.

Clinical handover in healthcare is vital both for patient care management and to ensure safe care is being delivered. However, as the handover process is rarely standardised, confusion, errors and misinformation are unfortunately commonplace (Pocklington & Al-Dhahir, 2011; Tucker & Fox, 2014). The question of how best to ensure a handover that meets all the necessary requirements is a discussion that is commonly held (Clarke & Persaud, 2011). Within inpatient health care facilities, the

handover process has been extensively researched and the topic can be described as saturated (Friesen, Herbst, Turner, Speroni & Robinson, 2013; Jefferies et al., 2012; Jorm, White & Kaneen, 2009; Manser & Foster, 2011; Ong & Coiera, 2011; Riesenberg, Leitzsch & Cunningham, 2010; Thomas, Schultz, Hannafors & Runciman, 2013; Yee, Wong & Turner, 2009). Inpatient clinical areas additionally have systems that work in their specific environments. By comparison, the handover and referral process from an inpatient facility to a primary healthcare provider is not well researched (Hesselink et al., 2012), and there have been few New Zealand research studies published directly related to the handover process between secondary and primary care. In my experience, this indicates that work being done New Zealand by health professionals is more of an operational nature versus scholarly research.

"Lack of hospital handover is making our jobs harder, say district nurses" (Osborne, 2014, p. 9). This statement is from an English team of nurses who overwhelmingly believed that community staff were not informed of complex discharges and unwell patients, despite ongoing technological advances in communication that should have streamlined the handover process. There are recurrent themes in literature regarding patient handover between secondary and primary care, unfortunately tending to be less than ideal in terms of patient outcomes (Göbel et al., 2012), in that the process is fragmented, with multiple persons involved, but in general no one individual assumes overall responsibility for an adequate and safe handover.

The Patient Experience - Case Scenarios

In the field of nursing handover, it has been shown that a case study approach brings realism and actual events into the research (Yin, 2011), and provides an opportunity for the issue to be explored from many different angles, allowing for multiple layers of the experience to be researched (Baxter & Jack, 2008). The case scenarios discussed in the following situations are real events but are generalised, and not that

of one specific instance or patient related event. These scenarios demonstrate the secondary to primary care handover process with a focus on efficient, timely and complete communication.

Scenario One - Lack of appropriate information on a written referral

A handwritten referral was received via facsimile to district nursing from an acute ward in a hospital. The request was for administration of intravenous antibiotics over a four week period for treatment of a deep tissue infection. The documentation as received was timely, sufficient and met requirements, such as a contactable address, a signed medication authority by a medical officer and details of the vascular access device, in this case a peripherally inserted central catheter. It was identified post discharge that the patient was a current intravenous drug user, and they stated that they had taken methamphetamine the day prior to hospitalisation. There were extensive discussions amongst clinicians and managers both at hospital and community level over several days. The end result was readmission to the ward for the patient to complete their entire antibiotic course, as the perceived risk regarding this patient in a community setting was deemed too great.

Discussion: Communication between providers was lacking in this case. Most large hospitals who provide secondary care have a structured, planned process for patients discharging into the community on long term intravenous antibiotics, primarily based on a pre-discharge face to face assessment by a designated health professional, using an eligibility checklist. In turn, the relevant primary healthcare providers are contacted pre-discharge to discuss what services they will be required to provide. This hospital had no designated systemic processes in place, hence eligibility assessment was left to the individual health professional. Should a process have existed where the district nurse had the information pre discharge, the patient

would not have been discharged in the first place, preventing multiple discussions, loss of clinicians' time and the ultimate readmission.

Scenario Two - Health professionals working collaboratively

A young child with aggressive cancer had exhausted all known treatments and their condition was deemed palliative. They were to be discharged from the inpatient facility. The patient's mother wished to seek alternative treatment options outside conventional medicine, this was with the full support of the hospital medical team. This treatment would require the child to have intravenous access. The district nurses were informed early in the decision making process and had full input into the decision making that was relevant to them regarding the case. A plan was developed whereby the child's implanted intravenous port was accessed by the district nurses and the alternative therapy medication was administered by the prescriber who had had some training in vascular management.

Discussion: Whilst outside the usual scope of a district nurse to be involved in alternative therapy delivery, extensive handover of this case occurred between the secondary care medical and senior nursing staff to the primary health care team prior to discharge. The three main points resolving from this case were the communication between secondary and primary care, the sharing of knowledge and background in both the child's health and proposed alternative treatment, and the united team that the family and child interacted with, resulting in a seamless transition of care between personnel and organisations. This demonstrates the impact communication and an effective handover process has on positive treatment outcomes.

Scenario Three - Interpretation of terminology

A patient in the terminal stage of illness was to be discharged to their family home. The patient's life expectancy was a matter of days. A meeting was held on the ward between medical/nursing staff, patient and family, and all were in agreement with the

discharge plan. The ward provided the district nurses with all relevant documentation, such as a typed discharge summary, written referrals asking for terminal cares in the community, the correct and necessary medication prescriptions and authorities. The patient was discharged home in the afternoon, with written documentation faxed to the district nurse base at 1700 hours, after the base had closed for the day. The following day, upon clearing the fax and reading the referral, the district nurse contacted the family to find they were very distraught. She visited to discover that at the ward discharge planning meeting, the family and patient had been informed district nurses were available 24/7, and took this to mean a district nurse would be at the house 24 hours a day. In reality, the district nursing service provides a 24/7 on-call service, not the 24/7 bedside service that the family believed would be provided. Discussion: Whilst on paper this discharge from the ward was sufficient and met requirements, the lack of a verbal or person to person handover had a devastating outcome for this patient and their family. If the district nurse had been involved at any stage of the discharge, or even been notified of its occurrence, the family would have been made aware of exactly and to what extent services were and were not available.

HANDOVER Project

Primary research that has been published by the HANDOVER project group warrants mention. Initiated in 2008, the HANDOVER project involved six countries in Europe researching the patient's journey from hospital into the community. The aim of the group was identification and analysis of current and best practice, assessing how standardisation of processes could be implemented and sustained, patient impacts - if any - both positive and negative, and finally cost effectiveness with regards to current and proposed systems (Philibert & Barach, 2012). As a consequence of this seminal work, researchers from this group are disproportionately represented in this integrative review.

Self Positioning

As a senior nurse, I recently changed roles from secondary to primary healthcare within my district health board. The change involved moving from a nursing resource role in a large inpatient facility, to a clinician working as a district nurse in small team within a rural community, and then as an associate charge nurse manager across the wider district nursing team. This experience highlighted factors that arise for both the patient and health care professionals when patients move from secondary to primary care. It has been shown (Drachsler et al., 2012), and I have experienced first-hand, the impact poorly conducted patient handovers between healthcare professionals has on delays in diagnosis, incorrect treatment, patient dissatisfaction, hospital readmission, and increased morbidity or even mortality. While my personal area of interest is within the district nursing scope, it is well researched that these same issues occur across all spectrums of primary health care such as general practitioners, aged residential care and midwifery (Göbel et al., 2012; Lyhne, Georgiou, Marks, Tariq & Westbrook, 2012; Maher, Drachsler, Kalz & Specht, 2012; Psaila, Kruske, Fowler, Homer & Schmied, 2014). In my current role I work with staff and patients, and on a daily basis issues arise with a management plan or process directly related to patient care - examples of these were highlighted in the clinical scenarios as presented. Reflecting on these issues, the majority could have been either minimised or completely avoided if the originating, complete handover information had been provided in a timely manner upon admission to the primary healthcare service (Hesselink et al., 2013).

I am well aware of how my past and current positions influence my thinking regarding handover between primary and secondary care, and throughout this integrative review was constantly aware that the themes, trends and discussions were that the secondary care facilities could vastly improve their practice. This is not intended as criticism for the staff who work in secondary care, and the identified themes and then

discussion is directed at organisational processes and systems, not that of any one individual. My commitment to improving the transition of care for patients through the health care system extends to my current role, and as I am in a senior nurse position, I have the ability, networks and influence to initiate change.

Scope

There are multiple factors and personnel involved in the secondary to primary handover process and this research question focuses on and aims to benchmark only one factor, that of the nurse-to-nurse handover. As the integrative review progressed, areas of further investigation appeared that were considered beyond the scope of this study, such as transfer to residential facilities from secondary care, handover between secondary care departments and handover from primary to secondary care - that is, the inverse of this study. These facets may well be worthy of future research but have been excluded from this study.

Chapter Summary

The ultimate objective of this integrative review is to improve the patients' experience in their health journey as they transition between secondary and primary care. Clinical case studies demonstrate where both effective and ineffective handover processes have occurred, along with the resulting outcomes for the patient. Of most concern is the expectation that the patient is the foremost information conduit between health professionals. This integrative review will focus on existing practices and limitations of the primarily nurse-to-nurse handover process between secondary and primary care.

The next chapter discusses methodology, ethics and cultural considerations together with the search strategy and selection criteria for the research articles.

Chapter Two

The methodological approach for this research is an integrative review. This approach uses a framework that identifies and defines the research question, reviews and presents the literature, collates and extracts relevant data, performs an analysis on that data and finally goes on to make recommendations. In this chapter the data selection criteria is discussed, together with the inclusion and exclusion criteria for the articles selected for the integrative review. The search strategy for relevant literature is implemented, and refined via iterative processes. Ethical and cultural considerations are discussed in context with the research question.

Methodology

Nursing research involves both philosophical traditions and distinct methods (Creswell, 2013). Methodologies used must be both consistent and articulate, whilst simultaneously offering flexibility in a given process and in some cases, may not result in a solution, but may instead present more questions to be researched, providing multiple opportunities as opposed to just one correct answer (Anthony & Jack, 2009; Fain, 2013). Nursing research can be either quantitative research, dominantly seen as randomised controlled trials, or qualitative research, that has grown from philosophical concepts (Brookes, 2007; Creswell, 2013). Nursing handover research using a qualitative approach is focussed on gaining and understanding human behaviours and experiences. The foundation of qualitative research relating to nursing has three interrelated criteria: interpretation of meaning, explanation of data collection and consideration of lay knowledge (Popay, Rogers & Williams, 1998).

The integrative review methodology is used to provide synthesis of all knowledge and to analyse and investigate the applicability of previous studies (de Souza, da Silva & de Carvalho, 2010; Staggers & Blaz, 2013). This specific methodology of integrative

review evaluates past findings that, once analysed, result in a deeper understanding of the question being asked (Broome, 1993). This methodology was selected for this study as it incorporates the analysis of findings from published research that have used diverse methodologies and is the broadest type of review (LoBiondo-Wood, 2013; Whittemore & Knafl, 2005). The integrative review methodology enables findings to be synthesised from both experimental and non-experimental studies (Whittemore & Knafl, 2005) and in addition this method allows inclusion of all relevant studies. An integrative review offers a more comprehensive approach and increases generalisability if the selected articles have different variables such as sample size, geographical location, and different methodologies (Russell, 2005). The use of multiple study methodologies results in added depth to the findings from the analysis in an integrative review (Creswell, 2003; Mackenzie & Knipe, 2006).

Russell (2005) identified that during an integrative review there are four questions: what is already known, what is the quality of what is known, what should be known and finally, what would the next step be in the research process or in clinical practice. Advantages and benefits of this research method are essentially the answers to the last two questions - the identification of gaps in existing research and of opportunities for future research (LoBiondo-Wood, 2013; Russell, 2005).

The integrative review is - together with the systematic review and meta-analysis - of importance in health care, in fields such as development of clinical guidelines, justifying ongoing or further research and in keeping clinicians current and up to date in their chosen field (Moher, Liberati, Tetzlaff & Altman, 2009). The framework for integrative review consists of the following steps: defining and identifying the issue, reviewing the literature, separating out the relevant data according to set criteria, analysing the data, presentation of findings and finally the making of recommendations (Blay, Duffield, Gallagher & Roache, 2014; Russell, 2005).

The articles were reviewed using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement tool (Moher et al., 2009). Both this

tool and the review table format or tabular summary, are supported by the Cochrane Collaboration as templates for all new reviews, who further encourage authors to adapt them when updating existing reviews within the Cochrane Collaboration (Stovold, Beecher, Foxlee, & Noel-Starr, 2014). The PRISMA statement tool was developed by an international team of authors, researchers and consumers in Canada in 2005, the primary objective being to standardise and assist researchers in the reporting of literature reviews, systematic reviews, meta-analysis and integrative reviews (Moher et al., 2009).

Ethical and Cultural Considerations

This study is an integrative review of existing literature and no participants were directly involved directly in this research, therefore formal ethics committee approval was not required or sought. However, as the work of other researchers is discussed, there are fundamental ethical principles that must be considered when proposing any type of research (Holloway & Wheeler, 2013). In this, as in any research, ensuring privacy and confidentially are of utmost importance, as the author concurs that it is a basic right that research subjects have respect and anonymity (Burns & Grove, 2010; Orb, Eisenhauer & Wynaden, 2001). It is for this reason that the case scenarios discussed in this paper are a compilation of cases that capture my own experience of handover in practice, not that of one specific instance or patient related event. Research using the work of other authors should critique not criticize their work (Wallis, 2010), and this will be a theme throughout this data analysis and discussion. In his ground breaking work, Durie (1998) stated the intention is that research and subsequent actions are carried out collaboratively - with people and not on or for people. This research will not target any one population or health issue, but there may, due to the random selection criteria, be Maori or participants of other ethnicities included in the data collection. The principles of partnership and sharing in the Treaty of Waitangi will be respected by this researcher (Health Research Council, 2010).

It is of note that none of the articles included in the integrative review are from New Zealand. The question must then be asked, is the information and learning from these articles directly transferable to a New Zealand context, or is adaptation and modification required, specifically to meet ethical and cultural standards? The countries where the primary research was performed have similar generalised democratic values and ideals to that of New Zealanders (Sibley & Liu, 2007). Whilst ethical considerations were not directly stated in many of the research articles selected for this integrative review, all of the countries involved have recognised ethical research principles and guidelines that uphold the individual participants' rights and protect them from harm. These countries also have established ethical approval processes and committees that balance humane and moral principles with the promotion of ethical research principles (Goodyear-Smith, Lobb, Davies, Nachson & Seelau, 2002; Hearnshaw, 2004).

Method Data Sources and Search Strategy

The search strategy sought to locate qualitative, quantitative and grey literature both published and unpublished (Whittemore & Knafl, 2005). An exhaustive search using the EBSCOhost reference system accessed electronic scholarly databases including PubMed, MEDLINE, CINAHL Plus (Cumulative Index to Nursing and Allied Health Literature), PsycInfo and the Cochrane Library, using a sort criteria of English language only studies from January 2010 to March 2015.

Initial search terms used were discharge planning, hospital and home, producing 1066 articles - replacing hospital and home with inpatient and community respectively, resulted in the return of 145 results. In order to define the actual doing of, not the planning of discharges, other identifying terms such as handover, handoff[6] and referral were used. These however made little difference to the search return

[6] Handoff - the Northern American term for handover.

numbers. The term discharge planning was then altered to transition of care, proving to be more defined and producing 121 results. This process resulted in the final search terms being handover or handoff, hospital and primary health care, enabling the review of articles directly related to the handover process. Having defined the initial area of review, Google Scholar was utilised with the search terms seamless transition of care hospital to home, handover, hospital nursing and community. This search engine's design is such that it provides rapid returns, allowing different word sequences and phrases such as clinical handover between district nurses and hospital staff that could not be accommodated within the library databases. This search tool was used in partnership with the traditional electronic databases with frequent cross referencing. The result was a total of 125 articles.

Inclusion/Exclusion Criteria

Inclusion/exclusion criteria were decided upon prior to data collection (Russell, 2005). Inclusion criteria specified that the handover must be from secondary to primary care, and that nursing staff were the key health professionals involved in the handover. All patient groups, ages and medical conditions were included. Only full text articles were eligible for inclusion. The selection process allowed reduction of the pool size to fifteen homogenous studies (noting that the study is inherently heterogeneous as it deals with two different clinical areas) regarding handover of care between secondary and primary care. These fifteen articles were qualitatively reviewed, with the data then arranged into thematic analyses.

Study Limitations

An integrative review search does have limitations. There are extensive published primary and secondary research on the topic of handover, therefore, the search is unlikely to have been exhaustive. The search was restricted to scholarly peer reviewed articles and grey literature from recognised academic organisations. This

has excluded some excellent work that was and is ongoing within health care facilities and organisations in the form of improvement projects, integrated pilots and development of policies, protocols and guidelines.

Chapter Summary

Use of the integrative review methodology resulted in fifteen scholarly articles with the common theme being the handover process between nurses in secondary and primary care. Ethical and cultural considerations have included the transferability of international research to the New Zealand context, and that all authors' research, findings and discussion have been critiqued not criticised. The search criteria has been clearly defined and articles appropriate for inclusion identified.

The following chapter summarises the research articles, going on to identify common themes.

Chapter Three

The fifteen empirical studies that met the inclusion criteria are summarised and formatted into the PRISMA statement tool. These studies use methodologies that are both qualitative and quantitative.

This data is presented as Table One, where each article's purpose, methodology and major findings are stated. From this analysis, six common and recurring themes and patterns are identified and discussed in detail, including both positive and negative themes that have emerged from the literature.

Table One: Summary of studies included in the integrative review

Authors	Purpose	Methodology	Major findings
Burton, 2012 Colorado, USA	Assessment of financial implications of improving coordination of patient care transitions	Statistical review	Primary care teams often are not aware their patient has even admitted let alone discharged, incompatible computer processes impede timely coordination of care, organisational policies and funding streams also can create barriers
Flink et al., 2012 Sweden	Exploring patient handovers between primary and secondary care	Qualitative content analysis of medical records	Poor processes re informing patient, lack of shared understanding of handover process between clinician and patient, nursing transfer of information lacking
Göbel et al., 2012 Netherlands	Analysing the challenges at the interface between hospital and primary care setting	Qualitative thematic analysis	Lack of adequate handover information, availability of healthcare staff to deliver/receive handover, education given to healthcare staff regarding handover, poor information technology systems and compatibility, lack of patient involvement
Groene et al., 2012 United Kingdom/Spain/ Norway	Focus on patients' role in handover Exploration of handover practices at discharge	Qualitative interviews of patients and health professionals	Little standardisation or commonly accepted standard, communication by referral or discharge letter, lack of personal contact. Patient's role seen as passive, and perceived as haphazard. Handovers focus on disease process and tasks vs. holistic patient information. Current practice not seen as safe
Hammad, 2014 United Kingdom	Evaluating adherence to standards regarding information communication upon hospital discharge	Qualitative data review of clinical notes using general linear model analysis	Over half of written discharge information received too late to be of use, requirements not consistently met, lack of progression to improve this issue a concern, errors in electronic process due to wrong data entry, 3 years after national standards introduced information communication still inadequate

Authors	Purpose	Methodology	Major findings
Hesselink et al., 2013 Norway	Identification of barriers experienced and perceived when discharging from secondary care	Mixed methods, quantitative data analysis, focus groups and questionnaires	Information is often unclear and incomplete, exchange of information poor, coordination of care affected by lack of handover from previous provider. Lack of understanding regarding expected responsibility
Hesselink et al., 2014 Norway	Reviewing interventions that aim to improve patient discharge from hospital	Systemic review of RCT	Efforts primarily aimed at facilitation of coordination of care. Reducing bed days seen as positive outcome of improved processes. Multiple factors, no one single intervention is sufficient. Organisations are developing best practice models. Rich topic for further research
Johnson et al., 2012 Australia/USA/Norway Netherlands	Illustrating current handover practices between care settings	Qualitative focus group interviews to facilitate a process mapping exercise	Processes comparable across all sites, showing similar barriers regarding information sharing, completeness of information. Identifies lack of time and prioritisation. Highlights opportunities for further improvement work
Kennedy, 2012 Chicago, USA	Assessment of how communication impacts on handover from acute to home care setting	Mixed methods dissertation using exploratory descriptive design	Content more effective when standardised processes used. Nursing documentation/care plans from secondary care rarely utilised in handover process, despite home care nurse repeating process. Medical model commonly used for transfer of information
King et al., 2013 Wisconsin, USA	Examination of barriers and variation in care transitions between primary and secondary care	Qualitative study using grounded dimensional analysis, focus groups and in-depth interviews.	Heavy reliance on written discharge information, often medically focussed, lack of patient psychosocial/functional history Multiple inadequacies in process. Care delays and staff stress with existing process
Laugaland et al., 2012 Norway/Netherlands	Effects of discharge interventions on patient safety	Systemic literature review	Patients benefit from accurate information transfer. Successful interventions include discharge protocols and procedures, standardisation, use of electronic tools. Multi component approach recommended

Authors	Purpose	Methodology	Major findings
Orley, 2013 Norway	Gaining a better understanding of the types, frequency, causes, and consequences of adverse events seen in relation to coordination of care between primary and secondary health care services	Exploratory case study using mixed methods of interviews and document analysis	Increased errors resulted from inadequate communication. Multiple causative factors. No one model suited for overall handover process. More research needed in this area
Philibert & Barach, 2012 Chicago USA	Demonstrating effectiveness of HANDOVER project	Literature review	Significant variation in practice in all six participating nations. Ideas for improving discharge identified. Standardised process provides best outcomes. Work this group has done sets stage for further research
Reilly et al., 2013 Philadelphia, USA	Review of handover process in group of patients with same chronic illness	Qualitative study using semi structured interviews	Assumption that communication does occur and care is handed over, quality of communication the prevailing theme and highly variable, lack of patient trust in current system, patients at risk of adverse events
Staggers & Blaz, 2012 Maryland, USA	Synthesizing outcomes from research on handovers	Integrative literature review	Verbal handover process still remains of utmost importance. Patient centeredness needs to be given greater consideration. Structure for contextually based handovers important

Themes

The following discussion is grouped into the six key themes identified from the analysis of the fifteen reviewed published studies, focussing on the handover process between secondary and primary care. These themes include patient centeredness and outcomes from the handover process; the information transfer process; communication between health professionals; the use of a discharge letter as the sole handover tool; the use, the advantages and also lack of shared systems, records and processes, with focus on an electronic shared patient file and finally the impact professional relationships have on the handover process.

1. Patient centeredness/outcomes

The patient needs to be the focus and at the centre of the handover process between secondary and primary healthcare. The patient is pivotal in a successful handover (Groene et al., 2012) and, additionally, the role the family plays in the handover process cannot be underestimated (Laugaland, Barach & Aase, 2012), as, with the family involved, the outcome for the patient is greatly improved. However, frequently patients and their families are not aware of what information has been shared between secondary and primary care, or when they ask, they are not provided this information (Groene et al., 2012). Patients have reported feeling unprepared for discharge and the post hospital care they went on to receive did not meet their needs or expectations (Philibert & Barach, 2012). In addition, a poor quality or lack of an adequate handover contributes to patients having adverse effects post hospitalisation. The patient themselves perceive the current handover practices as haphazard (Groene et al., 2012), and that they have not understood the diagnosis or ongoing management of their illness, therefore they experience a suboptimal discharge experience from secondary care (Groene et al., 2012). Patients perceive the handover of their care to be solely the responsibility of health care professionals

and not their own (Groene et al., 2012), and go on to report the current processes of handover between health professionals to be of low quality and not one they could trust to be correct and accurate (Reilly, Marcotte, Berns & Shea, 2013).

What patients expect is in direct contrast to the findings that, in a high percentage of cases - and in some clinical areas this appears to be the norm - patients are expected to transfer information between health professionals, a role they do not see as theirs to perform, especially so when they do not or cannot understand the technical terminology (Groene et al., 2012; Philibert & Barach, 2012). Hesselink, Schoonhoven, Plas, Wollersheim, and Vernooij-Dassen (2013), discussed a case where a patient had to inform the community nurse repeatedly during the visit what needed to be done, as the nurse had very poor written information from the hospital. In cases where the patient is too unwell or unable to transfer this information, families are frequently called upon to do so, adding an additional step in which errors and confusion can occur (Johnson et al., 2012). Discharge instructions from secondary care, which are usually verbal, to a patient, on average last for 76 seconds - retention and understanding of this information was only noted in 22% of these patients (Flink et al., 2012). Information that the patient received could be highly variable in content and there was little or no documentation in written handover records of the patient's knowledge or of their input into the management of their disease or illness (Flink et al., 2012). Should the written handover state instructions for the patient, mention was infrequently made that the patient had received this information, and no mention was found that they had understood the instructions (Flink et al., 2012; Hesselink et al., 2013). Additionally, patients reported they had no knowledge whether their primary health care providers had been notified of their recent hospitalisation.

The patients with the most positive outcomes post hospitalisation, are those that are proactive in their health care, and take on responsibility for the transfer of their health information between secondary and primary care (Flink et al., 2012). Groene et al. (2012) supports this finding, adding that the higher degree of health literacy and

language skills the patient has, the better they are capable of understanding and influencing their healthcare. Timely and relevant follow-up post hospitalisation occurs in approximately 50% of patients and, Flink et al. (2012) hypothesises that patients with personal and social resources, who proactively seek ongoing primary health care, are the patients who receive more timely and appropriate care. Flink et al. (2012) additionally stated that a handover process that was clear and with structured areas of responsibility was preferred by patients, irrespective of whether the healthcare professional was solely responsible or whether the patient chose to participate in the process.

Handovers that are inadequate impede the safety and quality of patient care and lead to rehospitalisation (Hesselink et al., 2014). In addition, inaccurate or missing information can contribute towards patient and family dissatisfaction with the primary health care provider, as they appear disorganised and unprepared to deliver the care required (King et al., 2013).

2. Information transfer

Whilst the handover process within organisations is challenging enough, these challenges are compounded when other organisations, agencies and personnel are involved (Göbel et al., 2012; Kennedy, 2012) with the transfer of care for patients as they move across organisations, presenting multiple opportunities for error (Hammad, 2014), as well as omission of information (Johnson et al., 2012). At each point of handover it is noted a loss of information occurs (Staggers & Blaz, 2013), and in some instances health professionals lose track of patients as they move from one health care provider to another (Göbel et al., 2012). Difficult transitions from secondary to primary health care are seen as the norm (King et al., 2013), and primary health care staff report an overwhelming trend towards less than optimal care transitions (Kennedy, 2012). Flink et al. (2012) found that in 98% of handover

records there was poor understanding of agreement of continuity of care between the referrer and the referee.

Secondary care has become so specialised that the primary focus during hospitalisation tends to be on the specific reason for admission, versus primary health care providers taking a more holistic patient approach (Groene et al., 2012). As the population ages, and patients live with multiple co-morbidities, the complexity of their healthcare increases and patients are often under the care of several specialists at any one time, therefore increasing the complexity of their management and increasing the potential for fragmentation and duplication of care (Orley, 2013). Given the inattention to secondary conditions during hospitalisation, errors or omissions in the transfer of care information are more likely to be about these versus the primary reason for hospitalisation (Hammad, 2014). Information to primary healthcare providers is often incomplete and/or not provided in a timely manner (Groene et al., 2012), with Hammad (2014) finding that 53% of handovers to primary healthcare were not received in a timely enough manner to be of benefit in post discharge management. Burton (2012) goes on to add only in 34% of cases did the primary health care provider have the handover information in time for when they first saw the patient. This is further evidenced by Hesselink et al. (2013) with figures of only 43% - 55% of primary health care providers having timely and necessary handover information. Johnson et al. (2012), agrees, going on to state primary health care professionals' time is wasted by trying to piece together incomplete data due to the fact they do not have any type of handover.

Nursing does not have a culture of handing over to the primary healthcare provider (Flink et al., 2014), and when handover information is received there is frequently important discharge information missing (Hesselink et al., 2013; Kennedy, 2012; Orley, 2013), or the handover is overly representative of the medical diagnosis, including at best minimal nursing or psychosocial detail (Kennedy, 2012). The identified handover issues focussed on missing, irrelevant or inaccurate information

(Kennedy, 2012) and much of that was missing or incomplete was nursing-related information (King et al., 2013). Even when discharge/handover information is provided by the secondary care provider, there are further challenges such as it not being received due to other factors, such as incorrect demographic information or failure of communication systems (Flink et al., 2012). Confusion and time wastage of primary care health professionals due to incomplete or incorrect information while attempting to find out the intended management plan was again highlighted as a common theme (Göbel et al., 2012; Hammad, 2014). Additionally, conflicting information is common, generally when there is more than one avenue of communication, for example the patient reporting differing information from that received via the written handover process (King et al., 2013).

There was an identified difference in standards of handover process between clinical specialities, with the general wards performing worse than the speciality/sub-specialty clinical areas (Hammad, 2014).

3. Communication

There is no consistent process of handover between secondary and primary care and often the process only occurs because of existing personal contacts between clinicians (Groene et al., 2012; Kennedy, 2012). The quality of handover communication received is highly variable (Reilly et al., 2013) but is usually defined as poor (Hesselink et al., 2013). In addition confusion frequently occurs regarding terminology and intention and then miscommunication often results (Kennedy, 2012). So variable is the communication, that there is often an assumption that the care has been handed over (Reilly et al., 2013), whereas in reality primary health care providers frequently do not know the patient has been discharged, or was even admitted to hospital in the first place (Burton, 2012).

Suboptimal communication puts the patient at risk for ongoing adverse events (Reilly et al., 2013) and it forms barriers to full coordination of care (Hesselink et al., 2013).

Both primary and secondary care health providers are busy, and even when intentions exist to directly communicate and perform a handover, speaking to a specific person can be notoriously difficult. Many primary care organisations have call centres, with the result that clinicians cannot be contacted directly. While these call centres are intended to reduce the amount of non-clinical tasks performed by clinicians, they are frequently detrimental in making the person very difficult to contact regarding clinical matters. Additional factors are also commonplace such as incorrect or outdated contact details, the intended person is on leave or unavailable, or the clinical notes have been removed from the clinician's immediate access (Göbel et al., 2012; Hesselink et al., 2014).

There is no evidence in any of the studies reviewed that health professionals receive training or coaching regarding transition of care (Göbel et al., 2012). There is evidence that one of the expectations across health disciplines is that transition of care is learnt on the job, and that commonly it is the most junior health professional on the team that is given the task of discharge planning and completing the handover (Göbel et al., 2012; Hesselink et al., 2013; King et al., 2013) as completing handover documentation and processes is seen as an administrative burden (Göbel et al., 2012). In addition, there is minimal evidence that secondary health care professionals have any direction regarding the content of handover from the secondary to the primary care setting (Kennedy, 2012). The lack of formal training, a supportive environment, adequate tools or resources impacts significantly on the handover process (Flink et al., 2012).

4. Discharge letters as handover tools

Flink et al. (2012), stated that in 68% of cases the primary healthcare provider received written or verbal notification of a recent hospitalisation. In contrast, there are cases where extensive information is received as part of a written handover. However, the majority of this information may be irrelevant with the referee having to

sieve through it for the relevant details (King et al., 2013). Written discharge letters are a standard form of handover, offering little opportunity for personal contact or discussion (Groene et al., 2012). Handwritten handover information has been found to have significant illegibility in up to 75% of cases, so the optimal option is considered to be that of an electronic format (Hammad, 2014). Human error however is still an issue, given incorrect field section or data entry (Hammad, 2014). While 100% legible, the disadvantage with electronic discharge summary templates is that they are structured and often do not have fields that prompt for or allow input of information on nursing or socio-economic related issues (Groene et al, 2012; Hammad, 2014). Of note, discharge summaries written by non medical staff, for example nursing or allied health have been shown to have a superior holistic content (Hammad, 2014).

5. Shared systems/records/processes

As noted, handwritten records can be incomplete, difficult to decipher and lacking in relevant content (Hammad, 2014; King et al., 2013). Electronic processes are seen as the gold standard, but have their own issues.

A lack of a shared electronic record between primary and secondary care is seen as a major issue (Flink et al., 2012). Even within some organisations the incompatibility and restrictions of computer programmes and processes contribute to difficulties in accessing relevant and timely health information (Burton, 2012), and primary care providers find they need to rely on the patient's recall of events during their hospitalisation (Kennedy, 2012). It can only be seen as a positive solution to have an inter-organisational shared electronic health care record (Groene et al., 2012), and this is the challenge on an international level that health organisations continue to strive towards.

Hospital nursing staff can be confused about what services are available in the community, stating they often are not aware of what can and cannot be provided, and

do not sufficiently anticipate the needs of the primary health care providers (Hesselink et al., 2013). Secondary care teams are frequently not aware of the correct processes to follow regarding transfer of care, especially in cases where complex management is transferred into the primary health care setting, such as daily intravenous therapy (Hesselink et al., 2013).

There is no set handover method or process within a specific clinical area. For example, a handover could be could be phoned, faxed or emailed (Reilly et al., 2013), and the consensus is that agreed standards would result in improved processes. Of note however, a study from the United Kingdom, performed three years after standards were developed, regarding necessary discharge information between secondary to primary care, highlighted that standards were not consistently being met (Hammad, 2014).

6. Professional relationships

To generalise, secondary health care professionals do not see discharge management as a priority (Flink et al., 2012; Philibert & Barach, 2012). Both medical and nursing staff working in primary healthcare feel they are underestimated and underappreciated by their colleagues working in secondary health care, and are viewed as being less competent (Hesselink et al., 2014; Philibert & Barach, 2012). The secondary care provider sees their responsibility as ending once the patient leaves the gate (Göbel et al., 2012; King et al., 2013), where the patient and primary healthcare providers see them as being very much involved. Although out of scope of this research, it is of note that secondary care providers report they too would appreciate handover of relevant patients (primarily those patients with chronic conditions) who were being managed in the primary health care setting, as they felt if they had been informed earlier it may have improved the patient's outcomes and/or prevented rehospitalisation for the patient (Reilly et al., 2013). Patients referred into a secondary facility may not always have accurate information with them regarding

their community based care, so the handover process from primary to secondary care is also fraught with issues (Johnson et al., 2012). Perceptions and meanings can often differ across organisations (Hesselink et al., 2014), and studies have shown that where there is a focus on communication between health professionals inter-organisationally, a documented significant improvement in the transition of care has resulted (Hesselink et al., 2013).

Chapter Summary

The integrative review analysed fifteen articles, the content from which was grouped into prominent themes. These themes highlight the effects of the handover process on both the patient and involved health professionals. The outcomes and interpretation of these themes indicate that within the current processes in everyday practice there is vast room for improvement, with significant lapses in primary health care providers being provided timely and necessary handover information. The final chapter provides further discussion and identifies recommendations.

Chapter Four

The themes identified from chapter three are discussed in detail, using additional literature as further evidence to support the discussion. This is contextualised with the author's personal experiences and opinions. As a result, seven recommendations for improvement in clinical practice are developed and presented.

Discussion

Six broad themes have been identified and the integrative review has demonstrated that seamless transition of care between secondary and primary care is a rarity, with direct communication or handover occurring infrequently. This statement is supported by the data from the reviewed articles.

Patient involvement is vital in any handover of care process, but patients need to be individually assessed and given the opportunity to choose the level of their interaction and involvement, be it active or passive (Chaboyer, McMurray & Wallis, 2010; Carroll & Dowling, 2007; McMurray, Chaboyer, Wallis, Johnson & Gehrke, 2011). Health literacy and cognitive ability are significant contributors in the amount of input a patient has in the handover process. Most patients report they want to be involved with and have knowledge of their health management, however overwhelmingly they additionally state they do not see it as their role to have overall responsibility for the handover process between secondary and primary care (Flink et al., 2012). Patients go on to report that at the time of discharge from a secondary healthcare facility, not only are they still recovering from their recent hospitalisation, but that they receive information from several different personnel, all of which they are expected to remember (Groene et al., 2012). Even when patients have the ability for active involvement, some choose not to, and this decision needs to be respected.

The process by which the information is transferred from one health professional to the next from secondary to primary care is complex (Christie & Robinson, 2008).

Reports from patients regarding incorrect or conflicting information during transition of care are unfortunately commonplace.

This is supported by the author's personal experience where, commonly, primary health care providers are given directives by secondary care personnel that can lead to patient distress should these directives not be possible or viable, such as a handover stating the patient requires continence products to be provided - in reality, there is a two month waiting list for the assessment to occur, and once this assessment is completed, the patient may not even be eligible for product supply.

District nurses frequently encounter responsibility of care issues, for example a treatment regime or specialist medication commenced during hospitalisation. Should there be queries or concerns regarding this treatment once the patient has been discharged to the community, the general practitioner will frequently be uncomfortable changing the treatment plan as it was not initiated under the general practitioner's care - resulting in secondary care personnel needing to be contacted, often with difficulty, to discuss the patient's plan of care. The result is the patient is in the centre of a confusing and poor management process between primary and secondary healthcare providers.

Patients and their families expect that the norm is that there are robust and standardised handover processes between primary and secondary care (Laugaland et al., 2012; Reilly et al., 2014) and are perplexed when they become aware that this is not standard or common practice. The author finds communication challenges a common occurrence in the New Zealand healthcare system, with experienced staff managing the handover process and achieving better outcomes for their patients, primarily due the networks they have established over their career - often obtaining the best patient outcomes is due to its not what you know its who you know being a significant contributing factor.

Speaking to the relevant person directly is standard and expected practice between secondary care clinical areas, such as a transfer of care from the emergency

department to a ward, but when handover occurs from a secondary care to a primary care provider, direct interpersonal contact is a rarity (Bell et al., 2009) often due to the logistics of being not able to make contact in a timely manner. An example is that secondary care nurses report that district nurses are notoriously difficult to contact as they drive for a large part of the working day.

A single point of contact in the handover between secondary and primary care is seen as advantageous for both health care professionals and patients alike (King et al., 2013; Reilly, 2013). Successful care transition models often have an identified contact person, traditionally that of a nursing role (Burton, 2012) with these persons working across both secondary and primary care towards a seamless transition of care. A commonly used indicator of effective handover and management by primary health care providers (Laugaland et al., 2012) is that of readmission reduction - and having a health professional working in a coordination role, championing the discharge process, has demonstrated statistically positive effects on reductions in readmission. It appears the role itself is the key rather than whether this person is based in secondary or primary care (Laugaland et al., 2012). In the author's experience, primary care health professionals are quick to complain about the lack of information they receive, but equally they need to respect the nature of secondary care and the difficulties associated with clinical specialities managing patients with multiple co-morbidities - an example being an elderly patient with a fractured neck of femur, who may also have respiratory, cardiac and ontological disease processes, all of which interact and require management during hospitalisation. Without clear direction to the patient’s primary care provider, the potential for an adverse event is significantly increased.

In some clinical areas the utilisation of senior nursing roles such as nurse practitioner and clinical nurse specialist have been developed in areas where patients have a chronic illness (King et al., 2013; Laugaland et al., 2012), such as Haematology, Paediatrics, Respiratory, Gerontology, to name but a few. These areas have

identified that patients frequently move between secondary and primary care and that they have ongoing and varied health needs. The role of the senior nurse in these positions is to ensure all relevant health care professionals, regardless of the organisation they work for, have sufficient, current and ongoing information to safely and optimally care for the patient (Johnson et al., 2012).

Attention should be given to the development of standardised measures regarding continuity of care (Hesselink et al., 2013; Kicken, Van der Klink, Barach & Boshuizen, 2012), proactively redesigning and planning care processes with the goal of the improvement of transition of care (Johnson et al., 2012). Flexibility is an important factor to consider, especially given patients with multiple co-morbidities and, as the population lives longer, each patient will have individualised specific needs and requirements (Reilly et al., 2013).

A combined electronic record across secondary and primary care is seen as being one of, if not the, primary solution to improving patient transition and handover of care (Flink et al., 2012). That this not easily achieved is multifactorial, and work continues internationally in an attempt to provide reliable, confidential and accessible electronic communication systems (Balaban, Weissman, Samuel & Woolhandler, 2009). Projects and pilots in an attempt to achieve this are ongoing, and a recent example was between a primary health organisation (PHO) and a district health board (DHB), where selected PHO practices enabled access to their computerised patient management system to DHB staff (Waikato District Health Board, 2014). There were benefits, but these were outweighed by challenges such as both organisations having stand-alone systems that could not communicate with each other, resulting in clinical data being double-entered, once into each system. This duplication significantly decreased patient contact time, increased the possibility of error due to multiple information inputs, and was ultimately considered unviable.

The lack of training at under graduate or post graduate level in the handover process across all professions is widespread (Göbel et al., 2012; Hesselink et al., 2012; King

et al., 2013) and secondary to primary care handovers are not seen as a priority with the result that they are generally poorly performed. Secondary healthcare staff are further challenged by the constant demand on their resources and abilities to meet the needs of all patients in a timely manner. An example is that of an inpatient bed being filled before the patient for discharge has left. The staff in the inpatient facility often have to prioritise, and when the options are the management of an admission who may be very unwell, versus the completion - or even initiation - of a handover to the primary care provider, naturally the handover (seen as a predominantly administrative function) is seen as less of a priority.

Recommendations

It is widely accepted that there is no one intervention that will improve the handover process and that a multi-component approach is required (Hesselink et al., 2013; Welsh, Flanagan & Ebright, 2010). Nurses are committed to improving the processes currently in place (Wood et al., 2009) and the following are recommendations based on themes that have been identified.

1. Patient trust and empowerment: The patient's perception that their health care needs are being met by the robust handover process between secondary and primary care is vital (Reilly et al., 2013). Whilst patient involvement in the discharge/handover practice is essential, the patient should at no time be considered the primary information conduit.
2. Communication: An efficient handover requires communication that is timely, co-ordinated, and with sufficient detail to include the management plan of the primary as well as secondary diagnoses, whilst encompassing other related matters such as socio-economic and nursing factors. This should be provided with a focus to the proactive planning of relevant resources be it equipment or personnel (King et al., 2013). Objectives and goals should be clearly stated

with the handover referee being able to contact the referrer in a timely manner to discuss issues or queries (Reilly et al., 2013).

3. Quality of information: The information received needs to have sufficient detail, be both viable and legible (Hesselink et al., 2012; Kennedy, 2012), as well as being relevant to the health professional it is intended for. Handover information received needs to be at once concise and yet contain all relevant detail - the challenge is noted in that these aims can be significantly at odds.
4. Staff training: Can only be improved. Staff in all disciplines do not at present undergo any formal handover training and in many/most cases, referees undervalue the importance of the handover process. Currently, the handover process is expected to be learnt on the job, however educational intervention is required to improve both the standards of handover and expectations of the staff from the process (Gordon & Findley, 2011). Training of staff in the handover process across all disciplines is recommended, beginning at undergraduate level with ongoing organisational support of that training from both academic institutions and employers.
5. One point of contact and coordination: A single point of contact in the handover between secondary and primary care is recommended. This has been demonstrated as being advantageous to health care professionals, their employers and patients alike (King et al., 2013; Reilly et al., 2013). Note it has been shown that the role itself is the key, rather than the location of role, whether based in secondary or primary care (Laugaland et al., 2012).
6. Standardisation with flexibility: A standardised handover process requires significant development before it can be taught as part of the health professional curriculum. The use of a mnemonic tool such as SBARR - Situation, Background, Assessment, Response, Recommendation (Beckett & Kipnis, 2009; Waikato District Health Board, 2015; Yee et al., 2009) can be advantageous in the patient handover, providing structure and direction for

both the referrer and referee. Within the standardised process, attention must be given to flexibility/additionally required information such as demographics and socio-economic inputs impacting the patient's episode of care.

7. Resources and Tools: The development of secure, shared, inter-organisational tools and resources is urgently needed (Hopcroft & Calveley, 2008; Philibert & Barach, 2012). The gold standard in effective healthcare across organisations is seen as a shared electronic handover tool with prompts, compulsory and optional fields including medical, nursing, allied health and psychosocial fields (Greenhalgh et al., 2010; Jefferies, Johnson, & Nicholls, 2012; Philibert & Barach, 2012). An auditing process will be required once the tools are established in order to ensure compliance and adherence. To compliment shared electronic records, utilisation of cloud-based resource(s) would enable access by health care professionals across organisations (Drachsler et al., 2012), possibly including written templates, platform(s) for discussion and feedback, and opportunities for the sharing of resources, templates and key performance indicators.

Conclusion

This integrative review set out to identify how clinical handover between secondary and primary healthcare nursing staff could be improved, with the goal being seamless transition of patient care, and identify the lack, if any, of a systematic handover process between secondary and primary healthcare, determining should such a lack exist, whether a systematic approach to discharge planning in this area would produce improved outcomes for the patient. Lack of standardisation has been consistently demonstrated in the handover process between secondary and primary healthcare - in many cases, the handover process has been found to be non-existent. It has been shown there is vast room for improvement in the field of

handover between secondary and primary care across all health care disciplines and organisations.

Recommendations for improvement include recognition and definition of the patient's role in the handover process, upskilling and the formal development and teaching of a standardised handover process across all healthcare disciplines, the establishment of personnel as a single point of contact for a given handover and relevant, accessible resources and communication processes inter-organisationally to enable ongoing improvements in handover performance.

Further research in this field is strongly recommended, as in organisations where these recommendations have been addressed, positive outcomes in terms of reduced re-admissions have occurred, proving to the author's satisfaction that this topic is of significance both to the patient, in order to improve their healthcare journey and to the healthcare organisation as a whole, in the quest for a better health outcome for the wider community.

References

Anthony, S., & Jack, S. (2009). Qualitative case study methodology in nursing research: an integrative review. *Journal of Advanced Nursing*, *65*(6), 1171-1181. doi:10.1111/j.1365-2648.2009.04998.x

Arora, V. M., & Farnan, J. M. (2008). Care transitions for hospitalized patients. *Medical Clinics of North America*, *92*(2), 315-324. http://dx.doi.org/10.1016/j.mcna.2007.11.002

Balaban, R. B., Weissman, J. S., Samuel, P. A., & Woolhandler, S. (2008). Redefining and redesigning hospital discharge to enhance patient care: a randomized controlled study. *Journal of General Internal Medicine*, *23*(8), 1228-1233. doi:10.1007/s11606-008-0618-9

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, *13*(4), 544-559. Retrieved from http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf

Beckett, C. D., & Kipnis, G. (2009). Collaborative communication: integrating SBAR to improve quality/patient safety outcomes. *Journal for Healthcare Quality*, *31*(5), 19-28. doi:10.1111/j.1945-1474.2009.00043.x

Bell, C. M., Schnipper, J. L., Auerbach, A. D., Kaboli, P. J., Wetterneck, T. B., Gonzales, D. V., ... & Meltzer, D. O. (2009). Association of communication between hospital-based physicians and primary care providers with patient outcomes. *Journal of General Internal Medicine*, *24*(3), 381-386. Retrieved from http://www.springer.com

Berendsen, A. J., de Jong, G. M., Meyboom-de Jong, B., Dekker, J. H., & Schuling, J. (2009). Transition of care: experiences and preferences of patients across the primary/secondary interface–a qualitative study. *BMC Health Services Research*, *9*(1), 62. doi:10.1186/1472-6963-9-62

Blay, N., Duffield, C. M., Gallagher, R., & Roche, M. (2014). Methodological integrative review of the work sampling technique used in nursing workload research. *Journal of Advanced Nursing*, *70*(11), 2434-2449. doi: 10.1111/jan.12466

Bodenheimer, T. (2008). Coordinating care-a perilous journey through the health care system. *New England Journal of Medicine*, *358*(10), 1064. Retrieved from http://www.pcpcc.net

Boling, P. A. (2009). Care transitions and home health care. *Clinics in Geriatric Medicine*, *25*(1), 135-148. http://dx.doi.org/10.1016/j.cger.2008.11.005

Bowles, K. H., Pham, J., O'Connor, M., & Horowitz, D. A. (2010). Information deficits in home care: A barrier to evidence-based disease management. *Home Health Care Management & Practice, 22*(4), 278-285. doi:10.1177/1084822309353145

Broome, M. (1993). Integrative literature reviews in the development of concepts. In B. Rodgers & E. Knafl (Eds.), *Concept Development in Nursing* (2nd ed., pp. 193–215). Philadelphia, PA: Saunders.

Brookes, D. (2007). Understanding the value of qualitative research in nursing. *Nursing Times*, *103*(8), 32-33. Retrieved from http://www.nursingtimes.net

Burns, N., & Grove, S. K. (2010). *Understanding nursing research: Building an evidence-based practice*. Maryland Heights, MO: Elsevier Health Sciences.

Burton, R. (2012). Health policy brief: improving care transitions. Retrieved from http://www.healthaffairs.org

Carroll, A., & Dowling, M. (2007). Discharge planning: communication, education and patient participation. *British Journal of Nursing*, *16*(14), 882-886. http://dx.doi.org/10.12968/bjon.2007.16.14.24328

Christie, P., & Robinson, H. (2008). Using a communication framework at handover to boost patient outcomes. *Nursing Times*, *105*(47), 13-15. Retrieved from EBSCOhost Database.

Clarke, C. M., & Persaud, D. D. (2011). Leading clinical handover improvement: a change strategy to implement best practices in the acute care setting. *Journal of Patient Safety*, *7*(1), 11-18. doi:10.1097/PTS.0b013e31820c98a8

Chaboyer, W., McMurray, A., & Wallis, M. (2010). Bedside nursing handover: a case study. *International Journal of Nursing Practice*, *16*(1), 27-34. doi:10.1111/j.1440-172X.2009.01809.x

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches.* (3rd ed.). Thousand Oaks, CA: Sage.

de Souza, M. T. D., Silva, M. D. D., & Carvalho, R. D. (2010). Integrative review: what is it? How to do it? *Einstein, 8*(1), 102-106. Retrieved from http://www.researchgate.net/publication/42637466_Integrative_review_what_is_it_How_to_do_it

Drachsler, H., Kicken, W., Van der Klink, M., Stoyanov, S., Boshuizen, H. P., & Barach, P. (2012). The Handover Toolbox: a knowledge exchange and training platform for improving patient care. *British Medical Journal Quality & Safety, 21*(Suppl. 1), i114-i120. doi:10.1136/bmjqs-2012-001176

Durie, M. H. (1998). *Te Mana, Te Kāwanatanga: The Politics of Self Determination*. Auckland, New Zealand: Oxford University Press.

Fain, J. A. (2013). *Reading, understanding, and applying nursing research* (4th ed.). Philadelphia, PA: FA Davis.

Flink, M., Öhlén, G., Hansagi, H., Barach, P., & Olsson, M. (2012). Beliefs and experiences can influence patient participation in handover between primary and secondary care—a qualitative study of patient perspectives. *British Medical Journal Quality & Safety*, *21*(Suppl. 1), i76-i83. doi:10.1136/bmjqs-2012-001179

Friesen, M. A., Herbst, A., Turner, J. W., Speroni, K. G., & Robinson, J. (2013). Developing a Patient-Centred ISHAPED Handoff with Patient/Family and Parent Advisory Councils. *Journal of Nursing Care Quality*, *28*(3), 208-216. doi:10.1097/NCQ.0b013e31828b8c9c

Göbel, B., Zwart, D., Hesselink, G., Pijnenborg, L., Barach, P., Kalkman, C., & Johnson, J. K. (2012). Stakeholder perspectives on handovers between hospital staff and general practitioners: an evaluation through the microsystems lens. *British Medical Journal Quality & Safety*, *21*(Suppl. 1), i106-i113. doi:10.1136/bmjqs-2012-001192

Goodyear-Smith, F., Lobb, B., Davies, G., Nachson, I., & Seelau, S. M. (2002). International variation in ethics committee requirements: comparisons across five Westernised nations. *BMC Medical Ethics, 3*(1), 2. doi:10.1186/1472-6939-3-2

Gordon, M., & Findley, R. (2011). Educational interventions to improve handover in health care: a systematic review. *Medical Education*, *45*(11), 1081-1089. doi:10.1111/j.1365-2923.2011.04049.x

Greenhalgh, T., Stramer, K., Bratan, T., Byrne, E., Russell, J., & Potts, H. W. (2010). Adoption and non-adoption of a shared electronic summary record in England: a mixed-method case study. *British Medical Journal*, *340*, c3111. doi:10.1136/bmj.c3111

Groene, R. O., Orrego, C., Suñol, R., Barach, P., & Groene, O. (2012). “It's like two worlds apart”: an analysis of vulnerable patient handover practices at discharge from hospital. *British Medical Journal Quality & Safety*, *21*(Suppl. 1), i67-i75. doi:10.1136/bmjqs-2012-001174

Hammad, E. A., Wright, D. J., Walton, C., Nunney, I., & Bhattacharya, D. (2014). Adherence to UK national guidance for discharge information: an audit in primary care. *British Journal of Clinical Pharmacology*, *78*(6), 1453-1464. doi:10.1111/bcp.12463

Health and Disability Commissioner. (2014). *Decisions & Case Notes, Case No.13HDC00259, 08HDC0399.* Retrieved from http://www.hdc.org.nz/decisions--case-notes/commissioner%27s-decisions/2014/13hdc00259

Health Research Council. (2010). Guidelines for Researchers on Health Research Involving Maori. Retrieved from http://www.hrc.govt.nz/sites/default/files/Guidelines%20for%20HR%20on%20Maori-%20Jul10%20revised%20for%20Te%20Ara%20Tika%20v2%20FINAL%5B1%5D.pdf

Hearnshaw, H. (2004). Comparison of requirements of research ethics committees in 11 European countries for a non-invasive interventional study. *British Medical Journal, 328*(7432), 140-141. doi:http://dx.doi.org/10.1136/bmj.328.7432.140

Hesselink, G., Schoonhoven, L., Barach, P., Spijker, A., Gademan, P., Kalkman, C., ... & Wollersheim, H. (2012). Improving Patient Handovers from Hospital to Primary Care: A Systematic Review. *Annals of Internal Medicine*, *157*(6), 417-428. doi:10.7326/0003-4819-157-6-201209180-00006

Hesselink, G., Schoonhoven, L., Plas, M., Wollersheim, H., & Vernooij-Dassen, M. (2013). Quality and safety of hospital discharge: a study on experiences and perceptions of patients, relatives and care providers. *International Journal for Quality in Health Care, 25*(1), 66-74. http://dx.doi.org/10.1093/intqhc/mzs066

Hesselink, G., Zegers, M., Vernooij-Dassen, M., Barach, P., Kalkman, C., Flink, M., ... & Wollersheim, H. (2014). Improving patient discharge and reducing hospital readmissions by using Intervention Mapping. *Biomedical Central Health Services Research, 14*(1), 389. doi:10.1186/1472-6963-14-389

Holloway, I., & Wheeler, S. (2013). *Qualitative research in nursing and healthcare* (4th ed*.).* Hoboken, NJ: John Wiley & Sons.

Hopcroft, D., & Calveley, J. (2008). What primary care wants from hospital electronic discharge summaries. *New Zealand Family Practitioner, 35*(2), 101-106. Retrieved from http://www.rnzcgp.org.nz

Jefferies, D., Johnson, M., & Nicholls, D. (2012). Comparing written and oral approaches to clinical reporting in nursing. *Contemporary Nurse*, *42*(1), 129-138. doi:10.5172/conu.2012.42.1.129

Johnson, J., Barach, P., & Arora, V. (2011, June). *Global challenges in communication strategies to ensure high reliability during patient handovers*. Paper presented at the 3rd Healthcare Systems Ergonomics and Patient Safety Conference, Oviedo, Spain. Retrieved from http://www.researchgate.net

Johnson, J. K., Farnan, J. M., Barach, P., Hesselink, G., Wollersheim, H., Pijnenborg, L., ... & Arora, V. M. (2012). Searching for the missing pieces between the hospital and primary care: mapping the patient process during care transitions. *British Medical Journal Quality & Safety*, *21*(Suppl. 1), i97-i105. doi:10.1136/bmjqs-2012-001215

Jorm, C. M., White, S., & Kaneen, T. (2009). Clinical handover: critical communications. *Medical Journal of Australia*, *190*(11), S108-S109. Retrieved from http://www.mja.com.au

Kennedy, R. (2012). *Acute-to-home care nursing handoffs: Distributed cognition across patterns of knowledge* (Doctoral Dissertation, Loyola University, Chicago, USA). Retrieved from http://www.umi.com

Kessels, R. P. (2003). Patients' memory for medical information. *Journal of the Royal Society of Medicine*, *96*(5), 219-222. Retrieved from http://jrs.sagepub.com/content/96/5/219.short

Kicken, W., Van der Klink, M., Barach, P., & Boshuizen, H. P. A. (2012). Handover training: does one size fit all? The merits of mass customisation. *British Medical Journal Quality & Safety*, *21*(Suppl. 1), i84-i88. doi:10.1136/bmjqs-2012-001164

King, B. J., Gilmore-Bykovskyi, A. L., Roiland, R. A., Polnaszek, B. E., Bowers, B. J., & Kind, A. J. (2013). The consequences of poor communication during transitions from hospital to skilled nursing facility: a qualitative study. *Journal of the American Geriatrics Society, 61*(7), 1095-1102. doi:10.1111/jgs.12328

Laugaland, K., Aase, K., & Barach, P. (2012). Interventions to improve patient safety in transitional care–a review of the evidence. *Work: A Journal of Prevention, Assessment and Rehabilitation, 41*, 2915-2924. doi:10.3233/WOR-2012-0544-2915

LoBiondo-Wood, G. (2013). Systematic Reviews and Clinical Practice Guidelines. In G. LoBiondo-Wood & J. Haber (Eds.), *Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice (*8th ed., pp 218-230). St Louis, MI: Elsevier Mosby.

Lyhne, S., Georgiou, A., Marks, A., Tariq, A., & Westbrook, J. I. (2012). Towards an understanding of the information dynamics of the handover process in aged care settings—A prerequisite for the safe and effective use of ICT. *International Journal of Medical Informatics*, *81*(7), 452-460. http://dx.doi.org/10.1016/j.ijmedinf.2012.01.013

Maher, B., Drachsler, H., Kalz, M., & Specht, M. (2012, October). The CLAS App A mobile training tool to improve handover procedures between hospital interface and family doctors. In M. Specht, J. Multisilta, & M. Sharples (Eds.), *11th World Conference on Mobile and Contextual Learning 2012 Helsinki, Finland: Proceedings, (pp. 38-45)*. Retrieved from http://hdl.handle.net/1820/4644

Manser, T., & Foster, S. (2011). Effective handover communication: an overview of research and improvement efforts. *Best Practice & Research Clinical* Anaesthesiology, 25(2), 181-191. doi:10.1016/j.bpa.2011.02.006

Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research*, *16*(2), 193-205. Retrieved from http://www.iier.org.au

McMurray, A., Chaboyer, W., Wallis, M., Johnson, J., & Gehrke, T. (2011). Patients' perspectives of bedside nursing handover. *Collegian*, *18*(1), 19-26. Retrieved from http://www.griffith.edu.com

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of Internal Medicine*, *151*(4), 264-269. doi:10.7326/0003-4819-151-4-200908180-00135

Olesen, K., & Myers, M. D. (1999). Trying to improve communication and collaboration with information technology: an action research project which failed. *Information Technology & People, 12*(4), 317-332. doi:10.1108/09593849910301621

Ong, M. S., & Coiera, E. (2011). A systematic review of failures in handoff communication during intrahospital transfers. *Joint Commission Journal on Quality and Patient Safety*, *37*(6), 274. Retrieved from http://www.mx.com

Orb, A., Eisenhauer, L., & Wynaden, D. (2001). Ethics in qualitative research. *Journal of Nursing Scholarship*, *33*(1), 93-96. Retrieved from http://www.columbia.edu

Orley, A. N. (2013). *Adverse events related to coordination between primary and secondary health care services in Norway* (Masters Thesis, University of Stavanger, Stavanger, Norway). Retrieved from http://www.bibsys.no

Osborne, K. (2014). Lack of hospital handover is making our jobs harder, say district nurses. *Nursing Standard*, *28*(40), 9. http://dx.doi.org/10.7748/ns.28.40.9.s7

Philibert, I., & Barach, P. (2012). The European HANDOVER Project: a multi-nation program to improve transitions at the primary care—inpatient interface. *British Medical Journal Quality & Safety, 21*(Suppl. 1), i1-i6. doi:10.1136/bmjqs-2012-001598

Pocklington, C., & Al-Dhahir, L. (2011). A Comparison of Methods of Producing a Discharge Summary: handwritten vs. electronic documentation. *British Journal of Medical Practitioners, 4*(3). Retrieved from http://www.bjmp.org

Popay, J., Rogers, A., & Williams, G. (1998). Rationale and standards for the systematic review of qualitative literature in health services research. *Qualitative Health Research*, *8*(3), 341-351. doi:10.1177/104973239800800305

Psaila, K., Kruske, S., Fowler, C., Homer, C., & Schmied, V. (2014). Smoothing out the transition of care between maternity and child and family health services: perspectives of child and family health nurses and midwives'. *BMC Pregnancy and Childbirth, 14*(1), 151. doi:10.1186/1471-2393-14-151

Reid, R. J., & Wagner, E. H. (2008). Strengthening primary care with better transfer of information. *Canadian Medical Association Journal*, *179*(10), 987-988. doi:10.1503/cmaj.081483

Reilly, J. B., Marcotte, L. M., Berns, J. S., & Shea, J. A. (2013). Handoff communication between hospital and outpatient dialysis units at patient discharge: a qualitative study. *Joint Commission Journal on Quality and Patient Safety, 39*(2), 70-76. Retrieved from EBSCOhost Database.

Riesenberg, L. A., Leisch, J., & Cunningham, J. M. (2010). Nursing handoffs: a systematic review of the literature. *The American Journal of Nursing*, *110*(4), 24-34. doi:10.1097/01.NAJ.0000370154.79857.09

Russell, C. L. (2005). An overview of the integrative research review. *Progress in Transplantation*, *15*(1), 8-13. Retrieved from http://www.nitiphong.com

Scovell, S. (2010). Role of the nurse-to-nurse handover in patient care. *Nursing Standard*, *24*(20), 35-39. http://dx.doi.org/10.7748/ns2010.01.24.20.35.c7453

Sibley, C. G., & Liu, J. H. (2007). New Zealand=bicultural? Implicit and explicit associations between ethnicity and nationhood in the New Zealand context. *European Journal of Social Psychology*, *37*(6), 1222-1243. doi: 10.1002/ejsp.459

Smeulers, M., Lucas, C., & Vermeulen, H. (2014). Effectiveness of different nursing handover styles for ensuring continuity of information in hospitalised patients. *The Cochrane Library*. doi:10.1002/14651858.CD009979.pub2.

Smith, S. B., & Alexander, J. W. (2012). Nursing perception of patient transitions from hospitals to home with home health. *Professional Case Management*, *17*(4), 175-185. doi:10.1097/NCM.0b013e31825297e8

Staggers, N., & Blaz, J. W. (2013). Research on nursing handoffs for medical and surgical settings: an integrative review. *Journal of Advanced Nursing, 69*(2), 247-262. doi:10.1111/j.1365-2648.2012.06087.x.

Stovold, E., Beecher, D., Foxlee, R., & Noel-Storr, A. (2014). Study flow diagrams in Cochrane systematic review updates: an adapted PRISMA flow diagram. *Systematic Reviews, 3(*54), 1-5*.* Retrieved from http://www.systematicreviewsjournal.com/content/3/1/54

Thomas, M. J., Schultz, T. J., Hannaford, N., & Runciman, W. B. (2013). Failures in transition: learning from incidents relating to clinical handover in acute care. *Journal for Healthcare Quality*, *35*(3), 49-56. doi:10.1111/j.1945-1474.2011.00189.x

Tucker, A., & Fox, P. (2014). Evaluating nursing handover: the REED model. *Nursing Standard*, *28*(20), 44-48. doi:10.7748/ns2014.01.28.20.44.e7992

Waikato District Health Board. (2014). *Midlands Health Network Nursing Pilot.* Retrieved from www.waikatodhb.health.nz/assets/about-us/agendas/Board/.../6.9.pdf

Waikato District Health Board. (2015). *SBARR*. Retrieved from http://www.waikatodhb.health.nz

Wallis, S. (2010). *Nursing handover research project: How is nursing handover talked about in the literature?* (Masters Thesis, Waikato Institute of Technology, Hamilton, New Zealand). Retrieved from http://www.wintec.ac.nz

Welsh, C. A., Flanagan, M. E., & Ebright, P. (2010). Barriers and facilitators to nursing handoffs: Recommendations for redesign. *Nursing Outlook*, *58*(3), 148-154. http://dx.doi.org/10.1016/j.outlook.2009.10.005

Whittemore, R., & Knafl, K. (2005). The integrative review: updated methodology. *Journal of Advanced Nursing*, *52*(5), 546-553. Retrieved from http://www.ufl.edu

World Health Organization. (2009). *Global priorities for patient safety research: Better knowledge for safer care. World Health Organization: Switzerland.* Retrieved from http://www.who.int/patientsafety/research/priority_setting/en/

Wood, S. K., Campbell, A. K., Marden, J. D., Schmidtman, L., Blundell, G. H., Sheerin, N. J., & Davidson, P. M. (2009). Inpatient care to community care: improving clinical handover in the private mental health setting. *Medical Journal of Australia*, *190*(11), S144-S149. Retrieved from http://www.mja.com.au

Yao, G. L., Novielli, N., Manaseki-Holland, S., Chen, Y. F., van der Klink, M., Barach, P., ... & Lilford, R. J. (2012). Evaluation of a predevelopment service delivery intervention: an application to improve clinical handovers. *British Medical Journal Quality & Safety, 21*(Suppl. 1)*,* i29-i38. doi:10.1136/bmjqs-2012-001210

Yee, K. C., Wong, M. C., & Turner, P. (2009). HAND ME AN ISOBAR": A pilot study of an evidence-based approach to improving shift-to-shift clinical handover. *Medical Journal of Australia, 90(11),* S121-S124. Retrieved from http;//www.mjainsight.com.au

Yin, R. K. (2011). *Applications of case study research*. Thousand Oaks, CA: Sage Publications.