**Collaboration between hospital and primary care nurses: a literature review**

**Background:** Nurses play an important role in the treatment and care of adults in both hospital and primary health care working within complex and fragmented organizational systems. As the nature of health care changes and hospital and primary care sectors become more closely associated, nurses in both sectors have an obligation to increase their collaboration.

**Aim:** To increase the understanding of collaboration between nurses working with adults in hospital and primary health care and to facilitate the future measurement of this collaboration.

**Methods:** A literature review was undertaken in July and August 2013 using CINAHL and MEDLINE databases from the earliest to August 2013. The searches produced 4951 citations which were reduced to 22 articles for review using a four-step inclusion strategy. Inductive content analysis was used to analyze the data.

**Results:** It is suggested that collaboration is a process which contains: (1) collaboration precursors: the opportunity to participate, knowledge and shared objectives, (2) elements of collaboration: competency, awareness and understanding of work roles and interaction, and (3) processes and outcomes: the events or behaviours that are the consequences of the collaboration between hospital and primary health care nurses.

**Conclusions:** The results indicate that collaboration between hospital and primary health care nurses is an important and integral part of the work of nurses and a process consisting of several predictable issues leading to useful care outcomes*.*

**Implications for nursing and health policy:**  Current health care changes make it a requirement for hospital and primary health care nurses to collaborate when working with adults to continue to meet the needs of patients. The findings of this study can be used to improve collaboration in practice and to devise research to improve collaboration between hospital and primary health care nurses.

**Keywords**: collaboration, content analysis, hospital, literature review, nursing, primary health care

**INTRODUCTION**

Primary health care teams collaborate with hospital and other partners to provide care for a population. The balance of leadership between hospital and primary health care teams has changed recently. These changes mean that care is led more through matrices of intra-professional, collaborative working in the community than by the treatment and care delivered in hospital (World Health Organization (WHO) 2008). The changes require the development of stronger, intra-professional, collegial collaboration (International Council of Nurses 2012a). This collegial collaboration is important because there are over 19 million nurses and midwives working worldwide (WHO 2011) and many more patients who require their care.

The verb "to collaborate" is derived from the Latin collaborare which means to work with another or others (Oxford English Dictionary 2012). Collaboration is a complex (D'Amour et al. 2005, Henneman et al. 1995), voluntary and dynamic process requiring a number of skills (D'Amour et al. 2005). Significant to nursing, collaboration has a positive impact on patient outcomes (AACN 2012, Henneman et al. 1995). In the literature, collaboration is equated with words like bond, union and partnership (Henneman et al. 1995) and is demonstrated through shared goals and commitments (Henneman et al. 1995). D'Amour et al. (2005) defined collaboration as a process related to

"…sharing, partnership, interdependency and power". p. 118.

Over many years authors have reported the benefits of collaboration. From an individual perspective Qaseem et al. (2007) reported that team collaboration, active communication and respect emanating from good working relationships with co-workers, improve job satisfaction among health care professionals.

Collaboration takes effort. The need for effort in the delivery of high quality and safe patient care using collaboration may be demonstrated when communication failures cause unintentional patient harm (Leonard et al. 2004). A more recent study has pointed out that the process of developing a care pathway across hospital and primary health care continuum needs good communication channels and collaboration (van Houdt et al 2013).

In the 1960's it was reported that little was known about collaboration between hospital and primary health care patients (Brocklehurst & Shergold 1968). A more recent study indicates that there is still a need to improve collaboration, communication and coordination (Kirsebom et al. 2013) to bridge the information gap (Satzinger et al. 2005) between hospital and primary health care nurses.

Collaboration in health care is frequently used with reference to the relationship between nurses and physicians (Henneman et al. 1995). Most of the research about collaboration, conducted in nursing is focused on this relationship (Dougherty & Larson 2005). In this time of ongoing health care change in nursing (International Council of Nurses 2012a) and health policies (WHO 2008) and the ICN Code of Ethics for nurses (International Council of Nurses 2012b) require nurses working in different organizations to collaborate with each other. However, there is lack of information about collaboration between nurses working in different types of health care organizations such as hospitals and primary health care, to respond to these requirements.

**AIMS**

The aim of this literature review was twofold. Firstly, to review the nursing literature about collaboration between hospital and primary health care nurses caring for adults. Secondly, to identify relevant nursing practice issues around collaboration between the same two groups.

The questions guiding the review were:

1. What is known about collaboration between nurses working with adults in hospital and primary health care?

2. What are the relevant practice issues around collaboration between nurses working with adults in hospital and primary health care?

**METHODS**

**Search methods**

CINAHL and MEDLINE databases are recommended for bibliographical searches within nursing (Subirana et al. 2005). The search using CINAHL (earliest to July 2013) and MEDLINE (earliest to August 2013) was performed between July and August 2013 and was focused on collaboration between hospital and primary health care nurses. Time limits, which would have eliminated the earliest studies, were not set because more than half of the studies reviewed were more than five years old. The search terms were 'Nurses' [Mesh] AND 'patient care management' OR 'collegial' OR 'interaction' OR 'communication' OR 'collaboration' OR 'collaborate' OR 'cooperation' OR 'nurse to nurse' OR 'liaison' OR 'consultation' OR 'teamwork' OR 'transitional care' OR 'transmural care' and 'Nurses' [Mesh] AND 'coordination' OR 'cooperation' OR 'collegial' OR 'practice development'. The search was limited to empirical studies in English and studies that included adult patients or clients. Also included in the review were relevant references found by hand-searching the reference lists of the included articles.

**Inclusion and exclusion criteria**

The empirical studies included in the review: (1) focused on the issues that describe collaboration between nurses, (2) presented the nursing context in hospital and primary health care units, (3) focused on the care of adult patients, (4) considered references published earliest to August 2013 and (5) considered empirical research studies written in English. The studies excluded from the review: (1) dealt with collaboration between professionals other than nurses (2) dealt with nurse or patient satisfaction, or leadership and (3) were literature reviews.

**Retrieval of the studies for review and their critical appraisal**

The eligibility of an empirical study into the review was determined in four steps (Figure 1). Firstly, from the initial search 4951 citations were found (2903 from CINAHL and 2048 from MEDLINE). Secondly, references were matched to the inclusion criteria at the level of the title and abstract, leaving 64 full texts to be read independently by two reviewers. Thirdly, the two reviewers removed the duplicates (n=11) and reviewed the remaining references (n=53) for inclusion using the inclusion and exclusion criteria and guiding questions described earlier. This work removed a further 33 articles leaving 20. The reference lists of the 20 articles were then hand-searched and two citations were added making the total 22 (Figure 1).

Lastly, the full text of the 22 selected articles was critically appraised by two reviewers independently. These appraisals used the inclusion and exclusion criteria and the COREQ (Tong et al. 2007) and STROBE (von Elm et al. 2007) checklists. The checklists were chosen for critical appraisal because they were developed to provide guidelines about how to critically evaluate published articles (von Elm et al. 2007, Tong et al. 2007). The COREQ checklist (Tong et al. 2007) was used to appraise case studies (n=2), the action research study (n=1) and the qualitative studies (n=12). The STROBE Statement checklist (von Elm et al. 2007) was used to evaluate studies using quantitative methods (n=7).

The critical appraisals were discussed between the authors and by consensus all 22 articles were accepted into the review. Those studies with high COREQ or STROBE scores, (ranges 1-32 and 1-22 respectively) were relied on more heavily in the review than those with lower scores.

The trustworthiness of this qualitative study is demonstrated by describing the data selection process in detail and by the involvement of four researchers in the selection and appraisal process. Two of these researchers worked independently on article selection and similarly, two researchers worked independently on the appraisals. Additionally, the critical appraisal of the selected articles was based within a framework of relevant, validated tools.

Insert Figure 1 about here

**Analysis of the data**

One author performed an inductive content analysis on each chosen study using open coding, category creation and abstraction (Hsieh & Shannon 2005). After this independent analysis, the constructions were discussed with all the authors and a consensus about how the data were interpreted was reached. Three categories were constructed describing the collaboration between hospital and primary health care nurses working with adults: collaboration precursors, the elements of collaboration and collaboration processes and outcomes.

**RESULTS**

**Description of the studies reviewed**

The 22 studies (Table 1) were conducted in the USA (n=6), Australia (n=3), Sweden (n=3), the United Kingdom (n=2), Canada (n=2), Finland (n=2), Ireland (n=2) and the Netherlands (n=2). The design and methods of the studies used a variety of data collection methods: questionnaires, interviews, patient records, focus group discussions, interactive forums, observations and a combination of these. The studies were conducted in hospital, community health care or home health care contexts. The sample size varied from 1 participant, a case study, (Hull & O'Rourke 2007) to 1183 participants, a descriptive study (Grönroos & Perälä 2005).

Insert Table 1 about here

The search produced much information about collaboration between nurses working with adults in hospital and primary health care. Using content analysis this information was used to reveal the relevant practice issues around collaboration. These practice issues were: collaboration precursors, the elements of collaboration and collaboration processes and outcomes (Table 2).

Insert Table 2 about here

**Collaboration precursors**

The collaboration precursors are the opportunity to participate, knowledge and shared objectives. Without these precursors collaboration is unlikely to flourish.

The opportunity to participate

The opportunity to participate in collaboration is a necessary precursor of collaboration (Bjuresäter et al. 2008, Buckley et al. 2009, Hull & O'Rourke 2007, Lundqvist & Axelsson 2007, Osborn & Townsend 1997, Simonsen-Rehn et al. 2009). The support of the organization towards the provision of the opportunity to collaborate was also highlighted in some studies (Gillespie et al. 2010, Hull & O'Rourke 2007, Simonsen-Rehn et al. 2009). For example, a lack of qualified nurses in the organization and negative attitudes towards of collaboration was found to reduce collaboration (Gillespie et al. 2010).

Osborn and Townsend (1997) suggest that healthcare leaders should acquire more knowledge about workload and staffing demands to provide the opportunity for collaboration. These opportunities include the provision of time and expertise, for giving and taking instructions, for giving advice and for providing information over the telephone. More recent studies support this emphasizing the importance of opportunities for staff to meet and have the time for collaboration (Bjuresäter et al. 2008, Hull & O'Rourke 2007, Robinson & Street 2004). Communication tools that can be used to enhance opportunities for collaboration include teleconferencing (Hull & O'Rourke 2007), face-to-face meetings (Hull & O'Rourke 2007, Kirsebom et al. 2013), telephone provision (Dunnion & Kelly 2005, Kirsebom et al. 2013, Osborn & Townsend 1997), letters, follow-up forms, fax and e-mail (Dunnion & Kelly 2005), voice mail, and digital images (Buckley et al. 2009). However, to obtain the best use of these tools, especially the electronic information systems, clearer guidelines and more training in using these systems are required (Kirsebom et al. 2013).

Knowledge

Many of the reviewed studies suggest that the level of knowledge is a significant factor in collaboration between hospital and primary health care nurses (Apker et al. 2006, Arnaert & Wainwright 2009, Austin et al. 2006, Bjuresäter et al. 2008, Buckley et al. 2009, Chaboyer et al. 2005, Dunnion & Kelly 2005, Grönroos & Perälä 2005, Hull & O'Rourke 2007, Jowett & Armitage 1988, Kirsebom et al. 2013, Lundqvist & Axelsson 2007, Robinson & Street 2004, Simonsen-Rehn et al. 2009). Bjuresäter et al. (2008) reported that nurses' knowledge is one of the factors that make it possible to plan, anticipate and implement nursing care in hospital and primary health care units. The transfer of knowledge from one sector to another is considered important for safe, individual and high-quality patient care (Bjuresäter et al. 2008).

Continuing education and practical training are considered to be effective measures helping to improve and transfer nurses' knowledge required in collaboration. Education may be provided within both general nursing and specialized care areas and arranged for groups or individuals (Austin et al. 2006, Chaboyer et al. 2005, Hull & O'Rourke 2007, Kirsebom et al. 2013, Robinson & Street 2004). Arnaert & Wainwright (2009) suggest that nurses' knowledge could be increased through attending conferences and workshops. Robinson and Street (2004) suggest that more general educational opportunities should be provided for nurses leading to opportunities to participate in research.

Buckley et al. (2009) found that knowledge transfer occurs in mutual consultation and in the narration of past experiences. In their study of home care nurse consultations with a wound care specialist nurse during a wound care episode, increased collaboration occurred through the use of e-mail messages, voice messages and digital pictures (Buckley et al. 2009). Lundqvist and Axelsson (2007) support these findings reporting that an important part of collaboration is learning from each other through knowledge transfer that occurs during the giving and receiving of information about the patient. These findings are further supported by Arnaert & Wainwright (2009) who found that nurses' knowledge is improved during discussion of day-to-day experiences and communication with patients, families, their team and other health care providers.

Professional nurses have been found to be skilled in knowledge transfer and reporting has been perceived to be prompt, up-to-date and comprehensive (Apker et al. 2006). Nurses also have the ability to ask specific questions to support and develop arguments around the information they receive to improve their knowledge (Apker et al. 2006). Dukkers van Emden et al. (1999) reported that discharge liaison nurses, often responsible for patients' discharge from hospital, are useful in the transfer of knowledge from the hospital to the primary health care sector. In their study, Arts et al. (2000) found that 85% of the participant hospital nurses considered the liaison nurse a useful source of knowledge about hospital, for nurses working in home care organizations. Nursing home nurses have also reported that they often have valuable knowledge about patients that hospital nurses can use when patients are admitted to the hospital from a care home (Kirsebom et al. 2013). However, documentation has been found to be variably useful. McKenna et al. (2000) reported that hospital nurses find the documentation between hospital and primary health care sector is very good 19% (n=11), good 41.4% (n=24) and satisfactory 31% (n=18). In the same study primary health care nurses 56% (n=25) were dissatisfied with the documentation and 36.4% (n=16) found the documentation satisfactory.

The use of written documents, verbal reports (Apker et al. 2006, Austin et al. 2006, McKenna et al. 2000, Robinson & Street 2004)and nurses' meetings affect the transfer of knowledge (Austin et al. 2006, McKenna et al. 2000, Robinson & Street 2004). Austin et al. 2006 suggest that documentation and verbal reporting play an important role in the transfer of knowledge between sectors where it could be used for in-patient care. Documentation and verbal reporting also have an important role in the follow-up of the results and the demonstration of outcomes of nursing care (Austin et al. 2006).

Shared objectives

The possession of shared objectives was one of the factors reported to unite nurses during collaborative action (Arnaert & Wainwright 2009, Austin et al. 2006, Bjuresäter et al. 2008, Hull & O'Rourke 2007, Kirsebom et al. 2013, Lundqvist & Axelsson 2007). To enhance collaboration it is important to demonstrate, a commitment to achieve shared goals within a system which allows for the provision of time for planning, preparation and the good coordination of events (Brujesäter et al. 2008).

Robinson and Street (2004) suggest that it is useful to have discussions between collaborators to set shared objectives and highlight important issues, concerns and shared interests. The achievement of shared objectives also requires clear guidelines (Austin et al. 2006) and mutually determined objectives managed through a process of shared decision making (Arnaert & Wainwright 2009).

**Elements of collaboration**

The elements of collaboration identified were competency, awareness and understanding of roles and interaction.

Competency

The competency of nurses is an important element within collaboration (Bjuresäter et al. 2008, Gillespie et al. 2010, Osborn & Townsend 1997, Simonsen-Rehn et al. 2009). Bjuresäter et al. (2008) reported that nurses' competence and skills affect their commitment and motivation to collaborate. This notion was supported by Antoniazzi (2011) who pointed out that a characteristic of competent nurses was that they take into account the views of others and so help each other in decision-making. Gillespie et al. (2010) reported that once collaborating, competent nurses can improve levels of collaboration in the absence of verbal discussion.

Nurses are required to have the skills of leadership when they coordinate patient care in collaboration with others (Apker et al. 2006, Gillespie et al. 2010) especially in acute situations (Apker et al. 2006, Gillespie et al. 2010). Nurse's skills of leadership and decision-making are emphasized when they carry out duties related to collaboration and when responding to others' expectations (Apker et al. 2006, Gillespie et al. 2010).

Osborn and Townsend (1997) reported that nurse practitioners have unique skills and prescriptive abilities that are important when responding to telephone calls from hospice nurses. Apker et al. (2006) found that it was expected that nurses should manage conflict competently and remain objective and self-confident whilst avoiding unnecessary defensive positions. In these conflict situations problem-solving skills are considered important (Apker et al. 2006). However, although nurses have this expertise, it is important that they acknowledge their own limitations and humanness, that is achieve a balance between an acknowledged level of expertise, objectivity and empathy (Arnaert & Wainwright 2009).

Awareness and understanding of the roles

Awareness and understanding of the different collaborating roles is necessary for successful collaboration between nurses (Antoniazzi 2011, Apker et al. 2006, Arnaert & Wainwright 2009, Austin et al. 2006, Bjuresäter et al. 2008, Gillespie et al. 2010, Gooden & Jackson 2004, Hull & O'Rourke 2007, Jowett & Armitage 1988, Kirsebom et al. 2013, McKenna et al. 2000, Robinson & Street 2004). Collaboration becomes stronger and more effective when each nurse understands their own roles. Gillespie et al. (2010) and Antoniazzi (2011) reported that the mutual respect of nurses and expressions which demonstrate that the roles of others are useful and valued, are important aspects of collaboration between nurses.

Support, back up and encouragement in the performance of roles are also factors that promote collaboration (Antoniazzi 2011, Arnaert & Wainwright 2009). However, collaborating nurses do not always understand each others' work situation (Bjuresäter et al. 2008, Kirsebom et al. 2013) causing nurses to feel under pressure in their work (Bjuresäter et al. 2008). Not understanding the work of others is exemplified by hospital nurses who thought that they gave adequate information to primary health care nurses about patients while the primary health care nurses who received the information felt it was inadequate (Bjuresäter et al. 2008).

Jowett & Armitage (1988) point out that amongst hospital nurses, poor awareness of primary health care roles and unrealistic beliefs about the continuity of care between hospital and primary health care nurses affect collaboration. McKenna *et al*. (2000) emphasized this point when they reported that 77% (n=34) of primary health care nurses stated that hospital nurses required up-to-date education about primary health care nurses roles. Conversely, Gooden and Jackson (2004) reported that primary health care nurses' roles were respected and valued.

Gooden & Jackson (2004) also showed that hospital nurses roles were clearly understood by primary health care nurses who thought that they provided high-quality care. However, primary health care nurses felt that their role did not allow opportunities for the same kind of expertise as the hospital nurses role (Austin et al. 2006). This notion is supported by Austin et al. (2006) who reported that primary health care nurses' roles in patient care are seen as much broader than those who work in hospital. This broader role makes, the centralization of knowledge into areas of ​​expertise is more difficult for primary health care nurses.

The different roles and perceived levels of expertise, valued or not, have been reported as power imbalances (Arnaert & Wainwright 2009, Chaboyer et al. 2005) facilitating feelings of incompetence, too much interference (Chaboyer et al. 2005) and a lack of appropriate knowledge (Arnaert & Wainwright 2009). These causes of perceived power imbalance could reduce collaboration. Adopting a non-judgmental approach to communication (Arnaert & Wainwright 2009) and job rotation (Kirsebom et al. 2013) could promote more successful collaboration by reducing perceived power imbalances.

Awareness of roles includes an awareness of the level of responsibility required at work. (Austin et al. 2006, Bjuresäter et al. 2008, Robinson & Street 2004). For example nurses should know which organization provides the services (Robinson & Street 2004) and who is in charge of the patient care and the follow-up treatment once discharged from hospital (Bjuresäter et al. 2008). To exemplify this, Kirsebom et al. (2013) found that collaboration between nurses working in a nursing home and those working in hospital could be increased if the hospital nurses took more responsibility within the discharge process. This may lead to a more careful discharge of patients to nursing homes, reducing the number of times patients are discharged from hospital prematurely. Additionally, unclear responsibilities have been found to hinder collaboration (Bjuresäter et al. 2008).

Awareness and understanding of appropriate work roles facilitates the exchange of views and the use of mentoring within collaboration between nurses (Apker et al. 2006). Within a collaborative relationship more experienced nurses are able to share their skills with novice nurses to introduce different procedures (Apker et al. 2006). Sharing skills includes the giving and receiving of feedback about nursing situations which is facilitated when groups have mutual respect for each other (Antoniazzi 2011). In particular, the positive feedback received by nurses from their colleagues may make them feel more comfortable and open to collaboration (Antoniazzi 2011).

Interaction

Interaction is reported to be a key element of collaboration in many studies (Antoniazzi 2011, Apker et al. 2006, Bjuresäter et al. 2008, Buckley et al. 2009, Chaboyer et al. 2005, Dunnion & Kelly 2005, Gillespie et al. 2010, Grönroos & Perälä 2005, Hull & O'Rourke 2007, Jowett & Armitage 1988, Kirsebom et al. 2013, McKenna et al. 2000, Robinson & Street 2004, Simonsen-Rehn et al. 2009). Good interaction in collaboration requires good dialogue (Kirsebom et al. 2013), mutual honesty (Antoniazzi 2011) and openness and trust in, for example confidential communication about professional and patient care issues (Apker et al. 2006, Chaboyer et al. 2005, Gillespie et al. 2010, Robinson & Street 2004). In their study McKenna et al. (2000) reported that 5.2% of hospital nurses found communication between hospital and primary health care sectors was unsatisfactory and 68% of primary health care nurses found this same communication unsatisfactory.

Collaborative interaction is enhanced when nurses demonstrate shared values, positive attitudes (Gillespie et al. 2010) and engender a pleasant atmosphere by avoiding the use of difficult terminology unnecessarily (Apker et al. 2006, Chaboyer et al. 2005, Gillespie et al. 2010). Additionally, collaboration is improved when compassion for one another is reflected in the interaction between nurses (Apker et al. 2006). This compassion may be demonstrated in greetings, the level of eye contact and when smiling and truly listening. Saying thank you appropriately, also seems to improve collaboration in interaction (Apker et al. 2006). These verbal and non-verbal salutations also promote the development of a positive and confidential interactive relationship (Apker et al. 2006).

**Collaboration processes and outcomes**

Opportunities for collaboration do not rest entirely on structural issues such as the provision of time. Process issues, such as how information is passed to and shared by colleagues is important (Arnaert & Wainwright 2009). Equally important are the social relationships, including the attitudes towards collaboration, which occur between collaborating members (Gillespie et al. 2010).

Successful collaborative partnerships between nurses use mutually inclusive and reciprocal relationships to improve care (Arnaert & Wainwright 2009). Within these mutually inclusive relationships nurses create and share information, guide each other, are non-judgmental and provide evidence of their own knowledge skills and attitudes to aid the collaboration process. Collaboration between hospital and primary health care nurses is conceived to be crucial to the quality of care (Bjuresäter et al. 2008) and nurses' perceptions of collaboration is one of the categories used to describe the quality of care (Lundqvist & Axelsson 2007). Also those nurses who are more likely to collaborate with others from outside the organization are also more likely to be committed to health promotion than those reported as less likely to collaborate (Simonsen-Rehn et al. 2009). In terms of care processes and outcomes, collaboration between nurses promotes the acquisition of appropriate knowledge, care planning, awareness of responsibilities and patient commitment to care (Bjuresäter et al. 2008). Also collaboration has been reported to assist in the smooth transfer of patients from hospital to home care (Arts et al. 2000) and promotes the continuity of patient care (Arnaert & Wainwright 2009, Dunnion & Kelly 2005, Grönroos & Perälä 2005, Hull & O'Rourke 2007).

One instrument for measuring nurse-to-nurse collaboration was identified: The Nurse-Nurse Collaboration (NNC) Scale. The NNC scale measures collaboration between nurses to decrease medical errors and improve patient care and nurses' job satisfaction. The instrument requires further psychometric testing and factor analysis (Dougherty & Larson 2010).

**DISCUSSION**

This literature review has identified that nurse-to-nurse collaboration is an essential part of a nurse’s work and that there is still a need for the improvement of collaboration between hospital and primary health care nurses (Kirsebom et al. 2013). Before the practice of collaboration can be improved, there is a need to know more about the nature of the collaboration between hospital and primary health care nurses and how the component parts operate together. This literature review suggests that the component parts of collaboration between hospital and primary health care nurses are characterized by: the opportunity to participate, knowledge and competency, shared objectives, awareness and understanding of the roles and interaction. The characteristics of collaboration with the strongest evidence are concerned with knowledge, awareness of work roles and interaction. Over half of the studies analyzed reported that these aforementioned characteristics are key issues present when useful collaboration between hospital and primary health care nurses occurs.

To improve collaboration managers, should facilitate collaborative opportunities (Gillespie et al. 2010, Hull & O'Rourke 2007, Simonsen-Rehn et al. 2009) so that nurses have enough time and equipment to collaborate in the planning, preparation and practice of patient care. These opportunities should be used by nurses to create and increase knowledge and facilitate knowledge transfer through for example, education (Austin et al. 2006, Chaboyer et al. 2005, Hull & O'Rourke 2007, Kirsebom et al. 2013, Robinson & Street 2004), meetings (Austin et al. 2006, McKenna et al. 2000, Robinson & Street 2004), practice, conferences, workshops (Arnaert & Wainwright 2009) and research (Robinson & Street 2004). Nurses should be committed to the development of shared objectives (Arnaert & Wainwright 2009, Austin et al. 2006, Bjuresäter et al. 2008, Hull & O'Rourke 2007, Kirsebom et al. 2013, Lundqvist & Axelsson 2007) and become aware and understand the roles of their collaborators in the management of care delivery (Antoniazzi 2011, Apker et al. 2006, Arnaert & Wainwright 2009, Austin et al. 2006, Bjuresäter et al. 2008, Gillespie et al. 2010, Gooden & Jackson 2004, Hull & O'Rourke 2007, Jowett & Armitage 1988, Kirsebom et al. 2013, McKenna et al. 2000, Robinson & Street 2004).

The different roles and perceived levels of expertise can lead to power imbalances which could affect collaboration opportunities negatively (Arnaert & Wainwright 2009, Chaboyer et al. 2005). Adopting a non-judgmental approach to communication nurses could promote collaboration more successfully (Arnaert & Wainwright 2009). In addition to knowledge, collaboration requires a level of competence which includes professionalism, leadership and decision making skills (Apker et al. 2006, Gillespie et al. 2010), conflict management and problem-solving skills (Apker et al. 2006). When collaborating, nurses should take account of the views of other nurses developing interactive relationships based on mutual honesty (Antoniazzi 2011)and trust and openness (Apker et al. 2006, Chaboyer et al. 2005, Gillespie et al. 2010, Robinson & Street 2004). It is also important to be aware that although nurses may have expertise, they should acknowledge their personal limitations and humanness (Arnaert & Wainwright 2009).

Nursing policies (International Council of Nurses 2012a), health policies (WHO 2008) and the ICN Code of Ethics for nurses (International Council of Nurses 2012b) require nurses to collaborate across different organizations. However, most of the studies that were included in this review were published more than five years ago. This suggests that there is lack of relevant, recent studies about nurse collaboration. However, due to the limitations of this review discussed in the next section, some studies may not have been captured in the review.

Overall, this current review sheds light on the important issues of collaboration but more research is required to further define collaboration so that the evidence can be used to improve patient care.

**Limitations**

The breadth of the review was limited to empirical research studies written in English in only two electronic databases and so some relevant publications may have been overlooked. The review included studies that were conducted in different countries so all the findings may not apply in all the study settings. Also, the data analysis used inductive content analysis and the synthesis was based on interpretations of other researchers' interpretations which may have lost information. Lastly, this review focused on nurse-to-nurse collaboration only. There may have been other useful studies on multi-professional collaboration which were excluded from the review.

**CONCLUSION**

There is a lack of information regarding collaboration between nurses working in different health care organizations and there is a paucity of recent research. Nurses play an important role in patient care in both hospital and primary care sectors and are expected to collaborate in a respectful relationship with fellow health professionals. However, the current level of analysis in the literature about the details of nurse-to-nurse collaboration and how collaboration operates is weak. This review strengthens that analysis highlighting, with some strong empirical evidence, that competence, awareness and understanding of roles and effective interaction improve collaboration between hospital and primary care nurses working with adults. Further, this evidence suggests that collaboration can enhance patient care and care outcomes. The development of these elements in individual nurses, groups of nurses within nursing practice requires the opportunity to participate in collaborative events and these opportunities should be used to share knowledge within shared objectives. Collaboration between hospital and primary care nurses could operate in a virtuous circle to further increase knowledge and respect (Antoniazzi 2011). In turn, improved collaboration could help in the development of open, honest and trusting reciprocal relationships between collaborating nurses (Arnaert & Wainwright 2009). Overall this review suggests that successful collaboration will improve the process of health care provision, as nurses work together more usefully to promote the continuity of patient care (Arnaert & Wainwright 2009, Dunnion & Kelly 2005, Grönroos & Perälä 2005, Hull & O'Rourke 2007).

The quest to understand collaboration between hospital and primary care nurses further, requires a wider search for more recent studies that capture collaborative practices and further research. Future research studies should include empirical studies that further define collaboration in measurable ways.

**IMPLICATIONS FOR NURSING AND HEALTH POLICY**

There is a requirement to improve collaboration between hospital and primary health care nurses. This collaboration is needed to meet the needs of patients through care planning and delivery, quality management, safety and the continuity of care within complex health care systems. The analysis of the collaboration between hospital and primary health care nurses working with adults presented here, can be used to understand and facilitate activities that will improve collaboration. The findings of this literature review can also be used to formulate research into improved collaboration between hospital and primary health care nurses.

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**Subject headings** (various combinations)**:** nurses, patient care management, collegial, interaction, communication, collaboration, collaborate, cooperation, nurse to nurse, liaison, consultation, teamwork, transitional care, transmural care, coordination, practice development

**Limits**: adult patients, English language

**Databases**: CINAHL (2903), MEDLINE (2048)

Database

4951 references

**Step 1**

Exclusion of 4561 references based on the topic

390 references for further analysis

Exclusion of 326 references based on the abstract

**Step 2**

64 references for analysis

Exclusion of references duplicated (n = 11) and based on the full text (n = 33)

20 references accepted based on inclusion and exclusion criteria

**Step 3**

2 references added from the manual search of reference lists of selected studies

Second reviewer independently reviewed and two reviewers critically appraised all the 22 selected references

**Step 4**

**Retrieval of 22 references to review**

**Figure 1** Database search and selection process.

**Table 1** Characteristics of the studies reviewed.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Jowett & Armitages (1988), UK | \* Qualitative evaluation study  \* Focused interviews  \* Content analysis | District general hospital, community hospital, home health care | General, paediatric and geriatric liaison nurses (n = 45), senior nurses (n = 27), hospital sisters, community sisters and health visitors (n = 124), 100 interviews were analyzed | \* Knowledge and communication, awareness and understanding of the roles were reported to be an significant facts of the collaboration between nurses, the role of the liaison nurse is effective in enhancing continuity of care  \* Nurses enable to easier contact, would help improve collaboration  \* Amongst hospital nurses, weak community awareness and un realistic beliefs about continuity of care affected collaboration | \* Tested with a pilot sample  \* Randomization was carried out by hospital sisters, community sisters and health visitors  \* Only 100 from 196 interviews was analyzed | COREQ scores 12/32 |
| Osborn & Townsend (1997), USA | \*Retrospective, exploratory chart review and cardsort study  \* Thematic analysis | Medical center and hospice agencies | Nurse practitioner (n = 3) and hospice nurses (n = 2), 114 telephone calls from hospice nurses were analyzed | \*143 different patient problem were identified and grouped into categories: 1) clinical problems, 2) medication and supply, 3) admission, discharge, and placement problems, and 4) miscellaneous problems  \* 53.1 % were clinical problems, 31.6 % clinical problems concerned pain management, also gastrointestinal, pulmonary, cardiovascular, skin, neurology/psychology, genitourinary and endocrine  \* Nurse practitioners gave clinical and non-clinical information and advices: ordering medications, treatments, supplies, equipment, and changes in home services  \* Nurse practitioners have unique skills and prescriptive ability that are important in responding to telephone calls from hospice nurses  \* Health care leaders need more knowledge about workload demands and staffing demands for telephone care | \* Generalisability discussed  \* Limitations section  \* Convenience sample of notes documenting telephone calls | COREQ scores 14/32 |
| Dukkers van Emden et al. (1999), Netherland | \* Descriptive study and critical review of evaluation studies  \*semi-structured interviews  \* Content analysis | General and academic hospitals | Discharge liaison/transfer nurses (n = 82) | \* In the Netherlands 48% of hospitals had a special discharge professional who were responsible for the discharge process to promote transfer of knowledge from hospital to primary health care sector, in most cases the discharge professional is discharge liaison nurse | \* Generalisability discussed  \* Limitations section  \* High response rate (96%) | COREQ scores 21/32 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Arts et al. (2000), Netherland | \* Evaluation study  \* Questionnaire and interviews (questionnaire), the process-orientated questions were answered by using a post-test design and the outcome-orientated questions were addressed in a pre-test/post-test design  \* The records of patients were also studied with respect to background and duration of hospital stay  \* Statistical analysis | General hospitals | Hospital nurses (n = 22, questionnaire)  and discharged stroke patients (n = 62, interviews) | \* 85% of the nurses considered the liaison nurse as a permanent source of information in the hospital for home care organization  \* Especially collaboration between hospital and home care experienced improved  \* The nurses indicated that the home care had more prompt information and the transfer of care was smoother | \* Patients interview was conducted by using a validated questionnaire  \* Generalisability discussed  \* Limitation section | STROBE scores 14/22 |
| McKenna et al. (2000) Ireland | \* Exploratory study  \* Questionnaires and semi-structured interviews (n = 11)  \* Statistical analysis and content analysis | Hospital and community health care | Hospital-based nurses (n = 115) and community-based nurses (n = 73) | \* 5.2% of hospital nurses found communication between hospital and primary health care sector unsatisfactory and 68% of primary health care nurses found it unsatisfactory  \* 41.4% of hospital nurses found documentation good between hospital and primary health care sector and 4.5% of primary health care nurses found it good  \* Hospital nurses 19% (n = 11), 41.4% (n = 24) and 31% (n = 18) find the documentation between hospital and primary health care sector very good, good and satisfactory, primary health care nurses 56% (n = 25) were dissatisfied with the documentation and 36.4% (n = 16) find it satisfactory  \* 77.3% (n = 34) of primary health care nurses pointed out that hospital nurses need education of primary health care nurses roles of the "present day"  \* Hospital nurses experienced that the addition of oral contact, friendly interaction and primary health care nurses around the clock to provide the opportunity to contact hospital contribute to collaboration  \*Primary health care nurses in the other hand felt that the mutual guidelines, the prompt knowledge and naming liaison nurse would promote collaboration | \* Face and content validity were tested with a pilot sample and checked with UK colleagues  \* Randomization was carried out  \* Low response rate (55.3%)  \* Generalisability discussed  \* Limitation section | STROBE scores 15/22 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Gooden & Jackson (2004), USA | \* Quantitative and descriptive study  \* Questionnaire  \* Statistical analysis | Private physician's office and hospital | Registered nurses and nurse practitioners (n = 264) | \* 78.8% of registered nurses experienced that they collaborate with nurse practitioners and 76.4% experienced that nurse practitioners respect them and 88.9% that they support them  \* 84.1% experienced that they were comfortable contacting nurse practitioners for questions or advice  \* 86% nurse practitioners roles were clearly understood by the registered nurses and 88.5% viewed that they provided high-quality care | \* Randomization was carried out  \* Low response rate (52.8%)  \* Content validity of the instrument was established earlier studies  \* Internal consistency reliability of the instrument was determined (Crohnbach α 0.93)  \* Generalisability discussed  \* Limitation section | STROBE scores 15/22 |
| Robinson & Street (2004), Australia | \* Action research  \* Interactive forums  \* Content analysis | Hospitals | Nurses (n = 27) | \* It was important to provide an opportunity for meetings, communication tools and the time for collaboration which increased knowledge and opportunities to collaboration  \* Education, mutual meetings, documentation, reporting and participating to the research were effective way increased the knowledge and networking  \* Mutual meetings enabled to set shared objectives  \* It was important to establish a collaboration based on trust and openness and to be aware of the roles and responsibilities of different sectors | \* This paper reports one action research from a larger project  \* Field notes  \* Data analysis carried out by two researchers | COREQ scores 21/32 |
| Chaboyer et al. (2005), Australia | \* Case study  \* Semi-structured interviews  \* Thematic analysis | Hospital | Ward nurses (n = 10) | \*Communication, acknowledges of the roles and support to nurse to nurse was important  \* Communication should be open  \*Acknowledges of the roles could pointed out another failure to appreciate the expertise  \* Collaboration and education increased the knowledge  \* To collaborate and education nurse needed the knowledge | \* Purposive sampling  \* Co-researcher reviewed the analysis  \* Generalisability discussed  \* Limitation discussed  \* Data analysis carried out by three researchers | COREQ scores 23/32 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Dunnion & Kelly (2005), Ireland | \*Survey study  \* Questionnaire (open and closed questioning style)  \* Statistical analysis and thematic content analysis | General hospital and the primary care area | Hospital nurses (n = 27), doctors (n = 95), public health nurses (n = 59) and practice nurses (n = 34) | \*Tools that can be used in collaboration may include letters, telephone, e-mail, fax, follow-up forms and new technologies  \* Knowledge, documentation and reporting was important in collaboration between hospital and primary nurses  \* Knowledge should transfer between sectors  \* To enhance effective interaction flexibility and mutual respect is required between the two sectors | \* Purposive sampling  \* Validated questionnaire  \* Changes were made in questionnaire, to ensure content validity the questionnaire were considered by an expert group  \*Low response rate (60.81%)  \* Generalisability discussed  \* Limitation section | STROBE scores 14/22 |
| Grönroos & Perälä (2005), Finland | \* Descriptive study  \* Questionnaire  \* Statistical analysis | Home health care | Home care personnel's (n = 1183) included practical nurses (n = 229), specialized nurse (n = 92) and public health nurse (n = 60) | \*Adequate knowledge was important in collaboration  \* The collaboration between hospital and primary health care sectors was functional, if they had shared clear and uniform practices and collaboration was effective | \*Low response rate (63%)  \* Factor analysis was performed for the variables belonging to the previously tested scale  \* Internal consistency reliability of the instrument was determined (Crohnbach α 0.52-0.93)  \* Discussed weakness of the study: the dependent variable was measured by only one statement | STROBE scores 16/22 |
| Apker et al. (2006), USA | \* Comparative study  \* Semi-structured interview (individual and focus groups) and observation  \* Constant comparative analysis | Hospital | Health care team members (n = 50) including staff nurses (n = 25), clinical nurse specialists (n = 3), physicians (n = 7), patient care assistants (n =6), unit clerks (n = 4) and unit coordinators/charge nurses (n = 5) | \* In interaction it was important avoid jargon or vague terminology, show respect and cohesion verbally and non-verbally  \* Mentor's and encouragement were important in collaboration  \* In collaboration nurses needed accurate, concise and timely knowledge  \* Reports and documentation transfer the knowledge  \* Collaboration required decision-making, problem-solving, leadership and conflict management skills  \* Nurses were compassion and caring in interaction verbally or non-verbally with other nurses especially with novice nurses  \* In collaboration each member had clear roles | \* Field notes  \* Observation and member checks refined data | COREQ scores 23/32 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Austin et al. (2006), UK | \* Qualitative study, ethnographic approach  \* Interview and observation  \* Content analysis | Community health care | Clinical nurse specialists, observation (n = 22)  Clinical nurse specialists, interviews (n = 22) and community nurses (n = 19) | \* Clinical nurse specialists organized education and training to update community nurses and share the knowledge  \*Documentation, reports and meetings were transfer also the knowledge  \* Community nurses were supported by clinical nurse specialists  \* Clinical nurse specialists tend to provide clear guidelines for nurses in primary health care to achieve shared objectives  \* Primary health care nurses experienced that their role did not allow the same kind of expertise as hospital nurses role enabled | \* Purposive sampling (observation)  \* Theoretical sampling (interviews)  \* Individual participants were selected by service managers  \* Field notes  \* Constant comparison between incoming data and those already collected  \* "Data collection continued until theoretical saturation was achieved"  \* The rigour (credibility, auditability and trasferability) was enhanced  \* Generalisability discussed | COREQ scores 22/32 |
| Hull & O'Rourke (2007), USA | \* Case study | Hospital | Patient (n = 1) | \* Sharing knowledge, education, communication and understanding the roles of nurses were important in collaboration and caring patients  \* Building relationships, trust and mutual goals were important in collaboration  \* Tools that can be used in collaboration may include meeting or teleconferences  \*Opportunity to participate collaboration should be supported | \* Validity and reliability of the study not reported in details | COREQ scores 11/32 |
| Lundqvist & Axelsson (2007), Sweden | \*Qualitative study, phenomenography approach  \* Open and semi-structured interviews  \* Content analysis | Hospital | Nurses  (n = 10) | \* In collaboration should work together as a team and find a mutual standpoint  \* Knowledge, skills and to enable to participate were important in collaboration  \* One of the categories that describe quality assurance was collaboration by nurses' perceptions | \* Ward managers were asked to select suitable participants based on the strategic sample  \*The questions were tested in a pilot interview  \* Data analysis carried out by two researchers and the results were compared  \* Saturation was reached after five interviews  \* Generalisability discussed | COREQ scores 26/32 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Bjuresäter et al. (2008), Sweden | \*Qualitative study, phenomenography approach  \* Interviews (open-ended questions)  \* Content analysis | Hospital and community health care | Hospital nurses  (n = 6) and community care  (n = 4) | \* Collaboration required knowledge, view of responsibility, mutual understanding, professional awareness, commitment and enough time for planning and preparation along with co-workers  \* Collaborating nurses did not always understood each other's work situation and the caused pressure on their work  \* Collaboration between hospital and primary health care nurses were conceived as being decisive to the quality of care, nurses' should be enable to participate collaboration  \* Nurses' competence and skills affected their commitment and their will to collaborate | \* Participants were reached through contact with the ward nurse managers and medical responsible nurse  \* Two test interviews were performed  \* Data analysis carried out by four researchers  \* Trustworthiness discussed  \* Generalisability discussed  \* Limitation section | COREQ scores 24/32 |
| Arnaert & Wainwright (2009), Canada | \* Qualitative explorative study  \* Semi-structured interviews  \* Content analysis (constant comparative method) | Community health care | Nurse-specialists  (n = 5) | \* To provide care and share expertise there is need to acknowledge own limitations and humanness, build a collaboration partnership and implement a teamwork  \* Passing and sharing the information, being non-judgmental, support and back up colleague was important in collaboration  \* It is important to nurses keep themselves informed by attending conferences and workshops on health care and own meetings  \* Collaborative partnership has reciprocal relationship between the nurses  \* Achieved mutually determined objectives it had to done through a shared process of communication and decision making  \* Fear of being perceived as incompetent or as lacking knowledge | \* Purposive sampling  \* The data were collected in French and were translated into English by the authors  \* Informal member checking with participants was performed to enhance data credibility  \* Generalisability discussed | COREQ scores 22/32 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Buckley et al. (2009), USA | \* Descriptive comparative study  \* Home care nurses collected the data and data obtained through the initial and secondary assessment by the certified wound, ostomy and continence (WOC) nurse  \* Statistical analysis and content analysis | Home health care | Home care nurses (n = 7), WOC nurse (n = 1) and patients (n = 43) | \* Tools that can be used in collaboration may include telephone, e-mail, voice mail, digital images  \* Consultation improved knowledge  \* Collaboration should support and tools to collaborate should provided | \* Purposive sampling  \* Nurses equipped with digital cameras and trained to use this technology before data collection began (competency was based on a minimum score 90% on a proficiency examination)  \* Limitation section  \* Only one WOC nurse, whose judgments formed the basis for all of the wound assessments and recommendations  \* Second certificated WOC nurse was used to rate the level of agreement or disagreement assessments and recommendations  \* Nurses photography skills were concerned  \* Generalisability discussed | COREQ scores 15/32 |
| Simonsen-Rehn et al. (2009), Finland | \*Survey study  \* Questionnaire  \* Statistical analysis | Inpatient care, home care and ambulatory care | Health care professionals (n = 417) including physician (5%), head nurse/nurse manager (7%), public health nurse (12%), registered nurse or equivalent (26%), practical nurse or equivalent (38%) and home help staff (12%) | \* Those collaborating outside the organization more were also more likely to be committed to in health promotion than those reported have a less collaboration \* It is significant that organization supported collaboration outside the organization  \* Health care personnel's needed possibilities to collaborate  \* Knowledge and competence were important in collaboration | \* Low response rate (57%)  \* Study was part of larger evaluation  \* One reminder were sent to all health care professionals  \* Internal consistency reliability of the instrument was determined from each section (Crohnbach α 0.62-0.89)  \* Non-response bias cannot be ruled out, there were not able to carry out non-response analysis due to lack of background information  \* Multivariate analysis  \* Generalisability discussed  \* Limitation section | STROBE scores 18/22 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Dougherty & Larson (2010), USA | \* A comprehensive literature review, pilot testing, field testing  \* Psychometric tests | Hospital | Nurses (n = 76), 4 nursing faculty member, 3 doctoral student | \* Instrument that measure nurse-to-nurse collaboration: The Nurse-Nurse Collaboration (NNC) Scale  \* The NNC measures collaboration between nurses to decrease medical errors and improve patient care and nurses' job satisfaction | \* Content, construct and convergent correlation validity were reviewed by expert group, by doctoral students and by field tests  \* Internal consistency were reviewed by Crohnbach α, overall scale it was 0.89  \* New instrument that requires further psychometric testing and factor analysis  \* Scale reviewed to have acceptable validity and reliability | STROBE scores 14/22 |
| Gillespie et al. (2010), Australia | \* Qualitative study, grounded theory approach  \* Semi-structured interviews (individual and group)  \* Thematic analysis | Hospital | Surgery room team members including surgeons (n = 2), anaesthetists (n = 2), nurse managers (n = 2) and staff nurses (n = 10) | \* Communication was verbal and non-verbal  \* Competence, values and attitudes was important in good communication and collaboration  \* Nurses required leadership, decision-making skills, conflict management skills and acknowledges of the roles in collaboration  \* A lack of adequate nursing staff and support from organization influenced team cohesion and collaboration  \* Education improved knowledge, professional understanding and communication and increased collaboration | \* Purposive sampling  \* Surgeons and anaesthetists were interviewed individual and nurse managers and staff nurses were interviewed in groups  \* Saturation was reached  \* Data were cross-checked between researchers  \* Preliminary findings were taken back to participants to clarify and confirm  \* Generalisability discussed  \* Limitation section | COREQ scores 21/32 |
| Antoniazzi (2011), Canada | \* Qualitative study, hermeneutic phenomenological approach  \* Interviews  \* "The hermeneutic circle forms the structure for data analysis"  Content analysis | Community health care | Nurses (n = 5) | \* Nurses should support and help each other in the decision-making  \* Nurses were encouraging, supportive, respective, praising each other and valuing collegial input  \* Nurses took the time to listen to colleagues and provided opportunity for ongoing dialogue  \* Interaction was honest  \* Nurses asked colleagues their opinions, expressing value for individual knowledge and past experiences  \* Lack of time and understanding the roles was barriers to conveying respect and collaboration  \* Positive feedback that nurses received made colleague feel more comfortable in collaboration between nurses | \* The staffing clerk selected participants who met the criteria  \* The results were returned to the participants to assess validity, authenticity and reliability, participants comments and suggestions are reflected in the final data analysis  \* Participants recounted past experiences leaving the results open to recall bias  \* Generalisability discussed | COREQ scores 22/32 |

**Table 1** (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Design/method** | **Context** | **Participants** | **Main findings** | **Comments** | **Critical appraisal** |
| Kirsebom et al. (2013), Sweden | \* Descriptive study, qualitative approach  \*Focus group discussions  \*Content analysis | Hospital and nursing homes | Hospital nurses (n = 14) and nursing home nurses (n = 6) | \* Nursing home nurses reported that they want to contact with hospital nurses when the older patient has been transferred to the hospital because they have valuable information about the patient  \* Communication takes place through the electronic information system but the hospital nurses did not feel secure that the information transfer unless they discussed with the nursing home nurses  \* Especially the electronic information systems, clearer guidelines and more training in using these systems are required  \* They highlighted the importance of a good dialogue  \* Hospital nurses suggested that they could help educate nursing home nurses  \* Nursing home nurses suggested that hospital nurses could take more responsibility in the patient discharge process and give better information from the discharging patient  \* Both nurses wished that communication, collaboration and understanding of each other's work situation between nurses from both settings would increase  \* Both nurses suggested job rotation, meetings and discussion platforms | \* Department directors from university hospital and community nursing homes recruit the participants  \* To achieve homogeneous groups as possible nursing home nurses and hospital nurses were not included in the same focus group discussions  \* Saturation was reached  \* Rigour discussed  \* Limitation section | COREQ scores 26/32 |

**Table 2** Relevant practice issues around collaboration between nurses working with adults in hospital and primary health care.

|  |  |  |
| --- | --- | --- |
| *Collaboration precursors* | *Elements of collaboration* | *Collaboration processes and outcomes* |
| **Opportunity to participate:**   * Qualified nurses in the organization and positive attitudes towards of collaboration * Opportunities for staff to meet and have the time for collaboration * Communication tools for collaboration   **Knowledge:**   * Factor that made it possible to plan, anticipate and implement nursing care * Important for safe, individual and high-quality patient care * Mutual consultation and in the narration of past experiences * Learning from each other * Prompt, up-to-date and comprehensive reporting * Asking specific questions to support and develop argument around the information * Liaison nurses are useful in the transfer of knowledge * The use of written documents, verbal reports and nurses' meetings   **Shared objectives:**   * Allows for the provision of time for planning, preparation and the good coordination of events * Requires clear guidelines (Austin et al. 2006) and mutually determined objectives managed through a process of shared decision making | **Competency:**   * Affected their commitment and motivation to collaborate * Lead to take into account the views of others and so help each other in decision-making * Improve levels of collaboration in the absence of verbal discussion * Skills of leadership, decision-making, manage conflict competently, remain objective, self-confident, problem-solving * Acknowledge own limitations and humanness   **Awareness and understanding of the roles:**   * Collaboration became stronger and more effective * The mutual respect of nurses and expressions demonstrating that the roles of others were useful and valued * Support, back up and encouragement in the performance of roles * To understand each others' work situation * Adopting a non-judgmental approach to communication and job rotation to reduce power imbalances in collaboration * An awareness of the level of responsibility * The exchange of views and the use of mentoring * Sharing skills   **Interaction:**   * Good dialogue, mutual honesty, openness and trust * Shared values, positive attitudes and engender a pleasant atmosphere by avoiding the use of difficult terminology unnecessarily * Compassion for one another | * In mutually inclusive relationships nurses created and shared information, guided each other, were non-judgmental and provided evidence of their own knowledge skills and attitudes to aid the collaboration process * Collaboration between hospital and primary health care nurses was conceived to be crucial to the quality of care * Those nurses who were more likely to collaborate with others from outside the organization were also more likely to be committed to in health promotion * Collaboration promoted the acquisition of appropriate knowledge, care planning, awareness of responsibilities and patient commitment to care * Collaboration assisted the smooth transfer of patients from hospital to home care and promote the continuity of patient care * One instrument for measuring nurse-to-nurse collaboration was identified: The Nurse-Nurse Collaboration (NNC) Scale |