

## **Identifying and Meeting the Needs of Older People with Surgical Wounds. A Holistic Perspective.**

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### **Introduction**

This paper focuses on the experiences of professionals when identifying and meeting the holistic needs of older people with surgical wounds. Identifying patient needs through applying one's professional perspective and expertise is unproblematic. Identifying patients' holistic needs and/or interconnected complex needs is still, however, a challenge. Professionals should see beyond their own professional caring interest to the care process as a whole (Hagen & Johnsen, 2013). Older people's needs before, during and after surgery are complex and require coherent and consistent interventions in the community, hospitals and the nursing homes. Professionals' abilities to identify and meet patient needs are therefore a crucial part of their everyday clinical practice. There is, however, a lack of awareness of how professionals determine and meet the holistic needs of older people with surgical wounds, in particular in collaborative work processes. Previous research shows professionals' conceptualizations of holistic patient needs differ with disciplinary background, this leading to differences in focus and approach when identifying and meeting the holistic needs of patients (Princeton, Edwards, Finlayson, 2023). This affects the quality of the patient care they provide (ibid). This qualitative research endeavours to understand and theorise the world view of healthcare professionals as they perceive and live holistic professional practice. Theory, as a common ground for a coherent understanding of holistic patients' needs, may improve interdisciplinary collaboration (Princeton et al, 2023) and the quality of holistic care.

### **Background**

The process of aging has an impact on wound healing (Rioux et al, 2006 in Widgerow, 2013), advancing age decreasing epidermal turnover, so reducing the ability to repair damage to the epidermis (Langøen, 2013). Advances in surgery and anaesthesia have resulted in greater numbers of older people with a high risk of surgical site infections and other complications being considered for surgery (NICE, 2009). Surgery aims to relieve suffering and maintain the older person's independence and dignity. Postoperative complications related to surgical wounds can, however, be hazardous or even fatal (Preston, Southall, Nel & Das, 2008). The number of older people with surgical wounds who will need personalised integrative care is therefore rising.

Chronological and physiological age do not necessarily correlate. Ageing is usually associated with gradual loss of physical health capacity, even in individuals who do not have any existing comorbidities (Hiranyakas et al, 2011). Older people can experience confusion following surgery (Andersson, Gustavsson, & Hallberg, 2001). Surgery patient confusion has also been shown to be linked to increased complications, prolonged hospitalization and a higher post-operative mortality rate (Galanki, Bickel, Gradinger, von Gummenberg & Förstl, 2001). It was recommended that community health professionals and hospital nurses need to be alert to the overall health issues of the older patient, to prevent postoperative complications. This can be achieved, for example, through assessments of cognitive impairment, and nutritional, blood and electrolyte status prior to and after surgery (Stewart, 2011). The management of surgical wounds should be holistic (Murphy, 2006). However, identifying and meeting the individual holistic needs of older patients with surgical wounds can, despite all the knowledge and resources available to healthcare professionals, be challenging. Patients still experience unnecessary disappointments due to needless delays and complications (White Paper, Nr.47, 2008 -2009).

### **Aim**

The aim of this study is to understand how professionals identify and meet the holistic needs of older people with surgical wounds, and to develop a common ground for understanding holistic care.

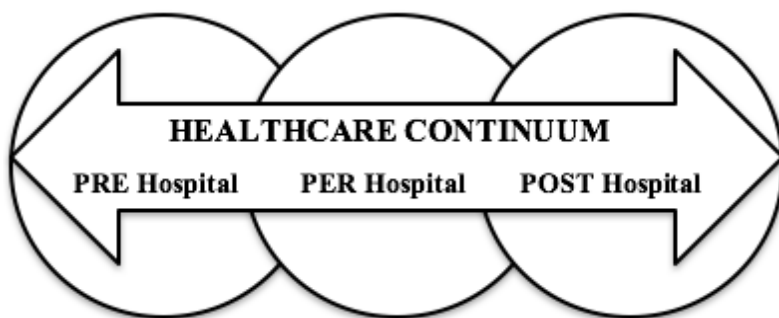
**Conceptual framework**

Older people referred to in this study are males and females aged over 65 years with varied diagnoses, who have undergone minor or major surgery, and who have a range of surgical wounds. A surgical wound is an incision through the skin or a wound made during surgery. Variables such as complications, size, location and the nature of the wound itself can be controlled in surgery (Wound Care Centers, 2013).

Holistic professional practice signifies viewing the patient as a human being made up of the inherent pandimensional parts of mind, body, soul, time, space, energy fields and as being at one with their environment (Rogers, 1970; Rogers, 1990; Rogers 1992). This principle unifies the integrated aim, intervention and/or processes of professionals who acknowledge and protect human value by providing an appropriate, timely, complete and safe care of the patient within a given healthcare continuum (Princeton et al, 2023).

The surgical health care continuum consists of three geographical phases: pre hospital, per hospital and post hospital. Each phase involves team members who are responsible for their own distinct disciplinary area related to older people with surgicalwounds.

FIGURE 1: Scope of the surgical healthcare continuum



**The study**

**Design**

An ethnographic approach and content analysis is used in this qualitative research. Content analysis has been used in nursing research and education to describe a research topic of interest (Graneheim&Lundman, 2004; Haydarpour et al., 2017).

**Participants**

Ethnographic samples are usually 25 to 50 (Polit & Beck, 2006). The 50 participants of this study were healthcare professionals with varied roles in four different hospitals, four nursing homes and three community healthcare centres in different regions. The inclusion criteria were at least two years of clinical experience and a role or responsibility for older people with surgical wounds.

Table1: Sample Characteristics

Table 1					
Total Number	Disciplines	Informants Role	Institution	Gender	Years of clinical practice
7	Nursing	Registered nurse	Community	Female	5-25 years
2	Nursing	R&D	Community	Female	9-20 years
2	Nursing	Manager	Community	Female	8-25 years
2	Nursing	Wound nurse	Community	Female	8n/6wn; 8n/4wn
1	Physiotherapy	Physiotherapist	Community/ Private	Female	6 years

7	Nursing	Registered nurse	Hospital	Female	5-25 years
2	Nursing	OR nurse	Hospital	Female	5-15 years
3	Nursing	R&D	Hospital	Female	6 – 25 years
2	Nursing	Unit Manager	Hospital	Female; Male	10-25 years
2	Nursing	Wound nurse	Hospital	Female	10n/2wn 16/3wn
1	Medicine	Surgeon	Hospital	Male	13 years
1	Nutrition	Nutritionist	Hospital	Female	23 years
1	Physiotherapy	Physiotherapist	Hospital	Female	4 years
7	Nursing	Registered nurse	Nursing Home	Female	3-36 years
1	Nursing	R&D	Nursing Home	Female	16 years
3	Nursing	Managers	Nursing Home	Female; 2Male	16-35 years
3	Nursing	Wound nurse	Nursing Home	Female	8n/3wn - 10/4wn
1	Medicine	Doctor	Nursing Home	Female	5 years
2	Physiotherapy	Physiotherapist	Nursing Home	Female	4 - 10 years
<b>Total 50</b>					

\*n means as a nurse; \*wn means as a wound nurse

## Data collection

Purposive and snowball sampling was used in this study. Observations and semi-structured interviews were conducted by the first author in 2015-2016. Professionals were recruited via unit managers and institutional leaders. Wound nurses and nurses with leader roles were referred by interviewees and were personally recruited later, the importance of their role becoming apparent after a number of interviews.

### Observation

Non-participatory observations were conducted between 30 minutes and one hour before or after the interviews. Total observation time was 30 hours. Important facts that are relevant to the identification of needs and the provision of intervention were noted during observations, including communication, organizational structure, facilities and written documents.

### Interviews

The interviews were conducted using a semi-structured guide and digital recorder. The interviews were mostly one to one. Two group interviews were, for practical reasons, carried out, the first with a group of 3 registered nurses, 1 wound nurse and 1 physiotherapist, and the other with 3 clinical nurses. The participants in these groups are included as singular informants in the participants list (see Table 1). All interview sessions started with a summary of the project's background and significance. The main question was: "What is your professional role, functions and responsibilities for older people from the time it is decided that the patient will undergo surgery until the time the patient goes back to the nursing home or community where the wound is to heal?"

Follow up questions were constructed ad hoc based on responses, responses revealing interviewees' collaborative partners and their activities in the healthcare processes. Each interview lasted 45 to 60 minutes.

### Ethical considerations

A research ethics committee approval(2015/129), institution permissions and informant consent were obtained prior to data collection. Informants were informed about confidentiality/anonymity and that they had the right to withdraw at any time. The data collected from observations and interviews was stored in a locked safe, separate from the demographical data. Steps were taken to protect the privacy of research subjects and the confidentiality of their information (Helsinki Declaration, 2017).

### Data analysis

The data was analysed using manifest and latent content analysis (Graneheim&Lundman,2004). Data was transcribed verbatim. It was read repeatedly to obtain an overview of its content, then analysed based on the key attributes of holistic professional practice: Appropriate, Timely, Complete and Continuous. This is considered to be a deductive-inductive approach. Data analysis was conducted in line with Heydarpour et al. (2017), starting with the first observation and interview, findings of subsequent observations and interviews being added to the previous. The analytic process continued cyclically as data reduction and synthesis were performed.

### Rigour

The criteria of credibility, transferability, dependability and confirmability were used to ensure the trustworthiness of qualitative data (Polit & Beck, 2012). The manuscript was sent to eighteen participants to verify the correct description and interpretation of the findings. The confirmability of the inquiry was reflected by repetitive data from the interviews and by the congruence of information derived from interviewees working in different healthcare settings. The transferability of the data may, however, be limited by institutional systems around the world developing at different points in time and rates. Substantial quotes, thick data description and theoretical reflections were applied to ensure dependability and allow synthesis of the findings at a higher abstraction level, new knowledge through this arising(see table2).

### Findings

Participants were registered nurses, medical doctors, surgeons, physiotherapists and nutritionists, all having 3-36 years of clinical experience (Table1). The data showed five holistic common denominators of the needs of older people with surgical wounds, these encompassing the patient's inherent existential dimensions of mind, body, soul, time, space, energy fields and/or environment. The data also revealed the facilitation of and barriers to identifying and meeting the holistic needs of older people with surgical wounds (Table2).

Table2: Holistic patient needs and the facilitating factors and barriers in identifying and meeting them.

Holistic patient needs	Facilitation	Barriers
Appropriateness of disciplinary care	Expertise	Missing or lack of expertise
	Latest evidence-based procedures	Obsolete procedures due to the delayed validation process
	Direct contact with patients	Indirect or no patient contact

<p><b>Appropriateness of interdisciplinary care</b></p>	<p>Involvement of all experts concerned</p> <p>Collaboration that integrates necessary knowledge and produces appropriate intervention</p> <p>Communication</p> <p>Sense of collective responsibilities</p>	<p>Institutional organization and management (no standardized recruitment procedure for missing expertise)</p> <p>Inappropriate resource allocation and distribution</p> <p>Undefined roles, functions and responsibilities</p>
<p><b>Synchronic delivery of care</b></p>	<p>Direct contact or close proximity between patient and disciplinary experts for immediate recognition and delivery of care</p> <p>Timely interdisciplinary referrals and collaboration for immediate recognition and delivery of integrated care</p> <p>Universal indicator for appropriate intervention and agreement on role, responsibility and decision-making</p>	<p>Institutional organization and management (questionable allocation or distribution of expert resources)</p> <p>Trans-institutional organization and collaboration</p> <p>Experts' indirect or no patient contact, causing unrecognized or delayed recognition of needs, untimely referrals or delayed response to referrals</p>
<p><b>Entirety of care</b></p>	<p>Expertise of all team members required</p> <p>Transcending roles, functions and responsibilities throughout the scope of a healthcare continuum</p>	<p>Limited leader's disciplinary perspective</p> <p>Missing expertise</p> <p>Limiting structure or institutional segregation of expert role, functions and responsibilities</p> <p>Unaccomplished transcending responsibilities due to geographical location of experts and lack of opportunity to evaluate delivered care</p>

<b>Continuity of care</b>	Engagement of all concerned experts throughout the pre, per and post hospital patient care situation, processes and evaluation, including cross-institutional transfers	Absence of expertise in the team  Lack or absence of communication due to institutional organization and structure
	Due communication through proper documentation, telephone calls and meetings across the whole healthcare continuum	Ineffective communication medium and processes  Lack of facilitation for concerned experts to accomplish transcending responsibilities due to their geographical location or segregation
	Consistency of care in aiming for and in providing promotional, preventive and rehabilitative care in the whole continuum	Lack of opportunity to evaluate delivered care

## Synthesis

### *Appropriateness of disciplinary care*

Successful surgical wound care is primarily dependent on the knowledge and understanding of normal wound healing held by the professionals involved, the type of surgery performed, the method of closure and optimal management of the surgical wound (Vuolo, 2006). The empirical investigation shows that professionals have different levels of competence, and that non-experts are aware of their limitations. Professionals are also self-critical and resourceful, so allowing them to provide the best possible care within their disciplinary role, function and responsibility.

Nurse(Hospital):“I wouldn’t say I am very competent in wound care, I would say that I simply change the wound dressing. We are not wound experts, but as nurses we know what to observe to detect complications and we can follow written procedures”.

Nurse (Nursing Home): “Wound nurses know what they are doing. We refer the older people to them when surgical wound and dressing procedures are complicated. Some patients have vacuum or more technical dressings”.

Nurse(Hospital):“We ask the company that sends us supplies. Sometimes they give courses”.  
The appropriateness of disciplinary care was, on the other hand, dependent on the procedures provided by professionals. These professionals perform, however, different roles and functions and hold different responsibilities, these differences affecting the appropriateness of the care provided.

NurseHospital(R&D):“My responsibility is to provide training to new employees and to disseminate the most up-to-date procedures. But it can be both challenging and frustrating. I am required to use the procedures approved by the hospital. But sometimes the procedures we use are obsolete. Even so, I was not allowed to use the most current procedures suggested by the College or the Nurses Association. I have to wait until the hospital releases the approved procedures, which can take time”.

Surgeon(Hospital):“We expect that nurses can handle the wound care of surgical wounds that are not complicated. We otherwise write the wound care procedure in the patient’s Critical Health Report (epicrisis). Epicrisis are usually written by the assistant surgeons”.

Nurse (Nursing Home): “The wound care procedure should be in the epicrisis, but often isn’t. It depends on which hospital unit they came from and which doctor wrote the epicrisis. We are two wound nurses here, and we write the wound care procedure for patients referred to us. It can be frustrating when I get back after a few days off to find the dressing procedure has been changed”.

Appropriateness of disciplinary care is dependent on the expertise of the professionals who carry out the wound care intervention. It is also dependent on the instructions given by other expert professionals situated at a

different level in the hierarchical organization. Novices are dependent on procedures (Benner in Benner et al., 1996) and may, in the above case, render interventions that are based on obsolete procedures. Expert nurses are, however, likely to have the disciplinary confidence to arrive at more critical and rational assessments and decisions. This confidence and experience gives them some degree of freedom to follow the latest evidence-based wound care procedure regardless of institutional regulations. Expertise is respected by other team members, so creating mutual trust.

Med. Doctor (Nursing Home): “It is great to have wound nurses. I am sure they are more competent in that area than me”.

Nurse (Community Health): “The doctors are not fully confident in wound care, so they let me decide and prepare wound care procedures. We have a complicated case of a postsurgical wound right now. The patient responded positively to the wound care procedure I prepared. His wound is healing”.

Med. Doctor (Nursing Home): “I let the wound nurses decide procedures and treatment, then they can come to me if they need to discuss anything”.

The appropriateness of disciplinary care has an impact on the direct intervention rendered on the wound, the care being provided by professionals in direct contact with the patient. Care provision includes expert assessment, time valuation, decision-making and the evaluation of wound care by specialists such as surgeons and operating room nurses.

Surgeon (Hospital): “We select the appropriate type of sutures, dressings and management suitable for the patient case”.

ORNurse (Hospital): “We share responsibility with the surgeons. It is important that the right kind of sutures are used for the different layers of tissues. The wound may otherwise not heal and become infected. Sutures that are non-absorbable must be removed at the right point in time”.

### ***Appropriateness of interdisciplinary care***

The appropriateness of inter-professional care is an evaluation of the extent to which intervention meets the interrelated needs of the older patient. This requires professional collaboration, successful care requiring the involvement of doctors, nurses, pharmacologists, dietitians (or nutritionist), and physiotherapists. (Gouvas et al., 2009). Collaborative effectiveness aspires to integrate the activities that are focussed on the patient. This should achieve results such as improved health and good service accessibility (Ahgren&Axelsson, 2005). The following data and literature show examples of the collaborative issues and processes involved in achieving the most appropriate fusion of knowledge, assessment, decision-making and intervention.

#### *Interrelated Medical - Surgical Diagnosis*

Surgeon (Hospital): “We (orthopedic surgeons) collaborate with cardiologists and other medical and/or surgical specialists, which specialists depending on the patient case. Many older patients have cardiovascular problems and diabetes”

The National Institute for Health and Clinical Excellence proposed guidelines for the use of thromboprophylaxis for patients over 60 undergoing surgery for fractures, general, vascular and thoracic surgery (Hill & Treasure, 2007). Older people undergoing surgical repairs of hip fractures represent a high-risk group due to prolonged immobility (Baumgarten, Rich, Shardell, Hawkes, Margolis, et al, 2012). Prolonged immobility impedes blood circulation, which has an impact on the process of wound healing, and predisposes older patients to pressure ulcers and arterial or venous thromboembolism. Venous thromboembolism is associated with significant morbidity and mortality (ibid). Research, however, suggests that older people receive inadequate treatment for thromboprophylaxis prior to surgery, because of the bleeding risk (Chaggar& Channer, 2008).

#### *Indications, contraindications and interactions of medications*

Nurse (Hospital): “Pain relief is important. Patients require mobilization to promote blood circulation. Some patients have low pain thresholds, and are anxious about moving if in pain”. Physiotherapist (Hospital): “Pain reliever should be regulated, because it can interfere with my assessment. Sometimes patients are overly medicated, are a bit drowsy and unable to cooperate when training. We also use pain during training as an assessment tool”.

It was unclear, in the above case, how nurses and physiotherapists work together with medication. It also raises the question of why pharmacologists are not involved in the scenario. Their expertise can contribute to the best possible decision and outcome. Pharmacologists were, in the interviews, not mentioned as being regular members of healthcare teams responsible for older people with surgical wounds. It seems that some professionals view the pharmacy as being an independent business institution whose services are separate from the community

health, nursing home or hospital team. Some hospitals in Australia have, however, begun involving pharmacologists in doctors' and nurses' rounds.

#### *Lack of expertise in identifying and meeting nutrition needs*

Nurse (Community Health): "There are no nutritionists in the team. But we can refer patients to them if they need nutritional assessment and evaluation".

Nutritionist(Hospital):"We are, due to lack of resources, not able to visit wards on a regular basis. So, I don't know whether the routines are completed or what happens in the wards. We have few opportunities to meet patients and personnel. It's a pity".

Taylor (2008) asserts that the alleviation of malnutrition is shown to affect wound healing, length of hospital stay, morbidity and mortality. There is a questionable routine in hospitals on the appropriate interdisciplinary practice for the nutritional care of older people.

Nutritionist (Hospital): "Patients who need special diets can receive this after being assessed and this being decided upon by the nurses, doctors, ergotherapist or the clinical nutritionist. All patients are screened using the Patient Safety Form upon admission and weekly thereafter, to identify patients at risk of malnutrition. Nurses should initiate measures if there is any risk of nutritional failure such as weight and poor appetite prior to admission. I don't know what measures they implement. But it varies from ward to ward. We are not included for every patient in that process. But we regularly give lectures and instructions about screening and proper measures".

A previous study shows that nurses lack sufficient knowledge and skills in identifying undernourished older patients. Nurses were uncertain about the nutritional status and needs of older people. They also lack competencies in measuring energy and nutrient intake (Eide, Halvorsen & Almendingen, 2014). This study also showed that nurses were frustrated because they were expecting greater involvement of physicians, who tended to just agree to the nutritional care nurses suggested. Nutritional care is not designated a nurse responsibility. Nurses, however, take primary responsibility for this, as no one else does (ibid). The key expertise of nutritionists is absent and is instead expected to be a part of doctors' and nurses' disciplinary competencies. Nutritionists provide lectures to nurses. It is, however, doubtful whether the nutritionists' expertise can be fully applied when provided indirectly in this way to older patients.

#### ***Synchronic delivery of care***

Team members have an irrefutable individual and collective responsibility to identify and meet the needs of patients. This, if it is to be useful, must be in accord with time and space factors. Achieving timely intervention is dependent on the professional's knowledge, direct contact with older patients, and their efficient collaboration with colleagues.

#### *Availability of resources and efficiency of referrals*

Nutritionist (Hospital): "We have no capacity to regularly take part in the assessment of patients who eat inadequately or are at risk to inadequate nutrition. We are contacted in severe cases, referrals received via the electronic patient journal. We then visit the patient as soon as possible. I have no overview of referral routines on the wards. My experience is that there is no standard routine. Some wards frequently contact us, others not. Sometimes a patient requests a consultation".

Nurse (Nursing Home, Unit Manager): "Nutritionists usually become involved very late. They should be involved much earlier".

Identifying needs does not necessarily mean that an immediate intervention is implemented. Needs recognition can alternatively be sustained until the truly skilled team member can intervene.

A number of patterns of patient-need recognition were identified during observations in the clinical area:

1. Patient directly presents and verbalizes needs, information received face-to-face and reverse information between patient and professional provided by the professional who can implement the appropriate disciplinary care intervention.
2. Patient verbalizes but indirectly presents needs, patients verbalizing their needs to any professional other than the one who can implement the needed service. Recognized needs must then be referred efficiently to the correct colleague for appropriate and timely intervention. Effective referrals require an underlying knowledge of other disciplines and the services they provide, so that appropriate interdisciplinary care can be arranged;
3. Patient directly presents but non-verbalizes needs, the patient's unspoken needs being observed and identified through direct contact with the patient. A patient's lack of knowledge of care and



treatment options could be why needs are unspoken (Grimen, 2010). This could result in a situation where an expert is required for immediate, timely or synchronic delivery of care. 4. Patient indirectly presents non-verbalized needs, the needs being presented indirectly through colleagues or through documentation. Collaborative team members are, in this situation, dependent on each other's knowledge and a common sense of responsibility in effective referral, collaboration, coordination, continuity and consistency of care. Managing continuity of care is complex and challenging. This places older patients in a vulnerable position (Rustad, 2015). Care coordination demands professionals' solidarity if complete interdependent care is to be achieved. Collective responsibility plays an important role in our legal and moral judgment (Arendt, 2003).

#### *Agreement in shared function, responsibility and decision-making*

Nurse (Nursing Home): "Some nurses are not patient enough to allow the wound to improve. They change the procedure right away. I am glad that there are now wound nurses. But they are not easily accessible when we need them".

Some nursing homes currently have no wound nurses. Older people with complicated wounds are therefore referred to wound nurses at community centres. Referrals may take time, and the nurses in direct contact with patients must in the meantime manage the situation based on their limited knowledge and skills. There is a lack of agreement on shared function, responsibility and decision-making. It is also unclear who should decide on changes in wound care and treatment in the absence of a universal indicator for appropriate intervention at different phases of wound healing. Wound healing and corresponding intervention are coerced over time. There, therefore must be a clarity and agreement on the sharing of functions, responsibilities and decision-making in the surgical wound care practices for older people.

#### ***Entirety of care***

Entirety of care means that the needs of older people with surgical wounds are fully identified and addressed by the integral team members at every institution where the older patient is situated, and that the team possesses the disciplinary expertise required for the three phases of surgical continuum the patient passes through. Nursing home, hospital and community care team members are not essentially the same nor are they essentially complete. This can make achieving entirety of care challenging. Teams that are made up of professionals with the disciplinary perspectives required throughout the healthcare continuum can, however, be physically segregated within the institution due to their roles and functions. This deprives them of responsibilities that transcend their institution.

#### *Transcending responsibilities*

Nurse (Hospital): "I wish I knew what happened to my patients. I sometimes wonder if the wound care procedure actually worked".

Nurse (Hospital): "I sometimes think about calling the nursing home to hear how the patient is doing. This is probably not a usual thing to do".

Nurse OR: "It would have been great to know how the patients are doing after surgery. I sometimes wonder if they have been re-operated or if they have recovered".

Surgeon (Hospital): "It was better before. Today, we no longer have automatic follow up of patients after discharge. GPs must refer patients to us. This is a financial strategy decided by managers at the upper level of the hierarchy".

Entirety of care was understood to include the evaluation of care rendered. Geographical barriers prevent professionals from evaluating their own interventions or appraising and regulating their own competencies. Surgeons and nurses want to know the impact of their analysis and decisions and/or to know whether alternative techniques or procedures would have been more appropriate.

#### *Recruitment strategies for missing expertise*

The rapid advances in medical, surgical and technical knowledge, treatment and procedures are not in sync with the production of educational knowledge and expertise. Special competencies such as wound care expertise were produced to address the clinical setting demand. Employing a newly established specialty was often a coincidence, and not standardized.

Nurse (Hospital): "I applied for a nursing position. It was a coincidence that I have a postgraduate degree in woundcare".

Wound nurses are assertive and they initiate projects to make full use of their potential.

Nurse (Community Health): “I suggested forming a wound care team, and established our group. We now have a clinic at the nursing home, and we are developing the wound care service for the community. We sent proposals to the government and are waiting for a decision”.

#### *Leader's disciplinary perspective*

Nurse (Community): “Our manager is a physiotherapist and has a different perspective. Nurses probably place more emphasis on the importance of nutrition in wound care. We have had meetings, and we hope to have a nutritionist on our team soon”.

One barrier to providing complete care is the lack of a systematic strategy for recruiting missing expertise. The optimal utility some of the well-established disciplines such as pharmacology and nutritional science can provide, is furthermore hindered by the system. Nutritionists are, as mentioned previously, mostly indirectly and haphazardly involved in care, pharmacologists usually being completely excluded. There is an ongoing project on this.

#### ***Continuity of care***

Continuity of care concerns the degree of continuous flow and consistency of appropriate disciplinary/interdisciplinary care rendered by the team. This transcends beyond the institution in which the team is physically situated.

Impediments to surgical wound healing must be identified and closely observed (Whitney, 2012) perioperatively. It is generally expected that the measures implemented before, during and after any type of surgery must be in sequence to enhance older patients' recovery (Hiranyakas, Bashankaev, Seo, Khaikin & Wexner, 2011).

The interplay of professional roles, functions and responsibilities determines the effectiveness of identifying and meeting the disciplinary/inter-disciplinary care needs of older people with surgical wounds in the perioperative scope. This interplay reflects the interdependent relationship between promotional, preventive and rehabilitative healthcare provided to older patients.

#### *Perioperative Nutrition and Normothermia*

Older people are, due to their vulnerability to falls, potential surgical patients. Promotional and preventative healthcare is therefore a crucial strategy for improving older peoples' tolerance of possible future surgical indication, and therefore the enhancement of wound healing. Nutrition and normothermia are two important perioperative healthcare strategies for achieving continuity of care. The nutritional status and body temperature of older people who are to undergo planned surgery at a hospital, can be a determining factor in delaying a surgical procedure and its success. It can also be a crucial factor in emergency cases, not only for wound healing *per se*, but also for older people's recovery or survival.

Nurse (Community Health): “We have many patients who need nutritional surveillance, I wish we had at least one nutritionist in our team”.

Nurse (Hospital): “Nurses and surgeons assess and decide nutritional status”.

Surgeon (Hospital): “It is important to differentiate between older patients who need immediate surgery and patients undergoing planned surgery. We have more time to correct their nutritional status before planned surgery. In emergency cases, however, we need to consider complex factors in decision-making. We should start building up the nutritional status as soon as possible, and then continue treatment during and after surgery until the desired outcome is achieved”.

Older people are prone to accidental and inadvertent hypothermia. Accidental hypothermia is heat loss outside the hospital due to climatic or traumatic situations. Inadvertent hypothermia is the unintended heat loss in vulnerable patients in their home or institutional settings (Hotzlclaw, 2005). A widely held social value in some countries with cold weather such as Norway, is that older people should live in their own homes as long as possible (Conger, 2001). It is therefore important that older people are well informed about the weather, such as wind chill factor and storm warnings, so that they can prepare for this (Halvorson, Givens, Helgerson, Johnson, 2007). Older people in the community can, during cold weather, reduce the risk of hypothermia by wearing appropriate clothing, avoiding cardiac stress and sweating, by staying dry and avoiding cold substances (ibid). Hypothermia causes vasoconstriction and poorer blood circulation. Wound healing and tissue repair is, however, dependent on optimizing wound perfusion. Increased blood supply and providing oxygen perioperatively improves wound closure and reduces the incidence of postoperative infections (Chandar, 2009).

Nurse (Operating Room): “Preventing hypothermia is very challenging, especially in older people. I think we can just assume hypothermia if we have no knowledge, due to its serious consequences. It’s not just about wound healing, but also because some older people are thin with poor nutrition and blood circulation”.

#### *Perioperative Medication*

Nurse: (Nursing Home Unit Manager): “There has been a problem for years with medication documentation. Medicines are recorded in many places. It takes time to figure out what medicines are actually taken by patients returning to us from hospital”.

Nurse (Nursing Home Unit Manager): “I call the hospital if something is unclear about the medication in the data recording system. This is not an ideal way of doing this. It’s time consuming”.

Continuity of medication is impeded by the defective communication and collaboration system. This also affects the synchronic delivery of care, a patient’s regular medication being through this interrupted.

#### **Limitations**

Bias risks were identified during interviews. Literature studies and results of previous interviews may have distorted inferences through alignment with previous knowledge (Polit & Beck, 2006). Other interviewees were referred to, to provide information that can confirm the information provided by a referent. Lack of knowledge meant that sample imbalance was not avoided. For example, a pharmacologist was not included in the sampling.

A pilot study could have uncovered all the stakeholders involved in the care of older people with surgical wounds in the three phases of the continuum. Suitable focus group interviews could then have been conducted. Nonetheless, this study revealed the common denominators of holistic needs and care for older people with surgical wounds. Further interdisciplinary research on this is required. More studies are also needed to develop a universal indicator for appropriate assessment and intervention in relation to time within the healing process. Parallel related studies are ongoing in Australia, in collaboration with Vietnam, Norway and the UK.

#### **Conclusion**

Identifying and meeting the needs of older people with surgical wounds is difficult due to lack of holistic approach. It showed that necessary team members who have the competencies/expertise to identify the needs are not at the right time and place when needed by the older people. Pharmacists and nutritionists are part of the caring team; unfortunately, the present institutional structures have not given them their necessary space at the clinical area. This hinders them to make use of their competencies that will benefit the older people with surgical wounds.

The indicators of holistic care are dynamic and interrelated. Each must be met for the remainder to be optimally accomplished in the three geographical phases. Professionals are physically situated in the institution in which they perform their role and execute their functions. Their responsibility, however, transcends beyond the institution in which they have direct or indirect contact with patients. Rendering holistic care to older people with surgical wounds can therefore be very challenging, suggesting that today’s healthcare system needs structural and organizational change so that improvement may start taking place and overall quality and safe health care may be achieved.

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