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Common core content in education for nurses in ambulance care in Sweden, Finland and Belgium

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ABSTRACT

There is no consensus regarding the required education content and competence needed for professionals working in the emergency medical services and only a few countries in Europe staff ambulances with registered nurses. This study aimed to identify common core content in Swedish, Finnish and Belgian university curricula in the education on advanced level for registered nurses in ambulance care and to describe the teachers' perception of the necessary content for the profession as a registered nurse in ambulance care.

A deductive research design was used. Three Universities, one from each country; Sweden, Finland and Belgium, participated. Data was generated from curricula and interviews with teachers and analyzed with different approaches of qualitative content analysis.

The results showed commonness with respect to core content; the emphasis was mainly on medical knowledge but the content concerning contextual subjects differed between the three universities.

The teachers, however, aimed for the students' to acquire a broad competence in clinical reasoning by implementing theory into practice, as well as developing the students' personal aptitude and instilling a scientific awareness. The results suggest that it is possible to create a common curriculum for training of RNs for working in ambulance care.

1. Introduction

There is no consensus regarding the required educational content and the competence needed for working in ambulances and emergency medical services (EMS), neither is there any specialty organization or other professional organization that has established standards for ambulance nursing. In most countries in Europe ambulances are staffed with emergency medical technicians and paramedics (WHO, 2008). Higher medical competence, broad clinical experience and understanding underlying pathophysiology correlate with health benefits for patients with chest pain and dyspnea (Fischer et al., 2011) and in some countries, physicians and/or registered nurses (RNs) are present to reinforce the medical competence in patient assignments in the most acute emergency conditions (Langhelle et al., 2004; Lindström et al., 2015; Pozner et al., 2004). Only a few countries staff emergency ambulances with RNs. This study focuses on Sweden, Finland and Belgium which have similar system for staffing in emergency ambulances with specialist nurses. These RNs' education includes a minimum of three years of university studies in nursing at the bachelor level and in some countries, there is an opportunity for one year of further advanced level training in prehospital, emergency, and/or intensive care nursing (Dib et al., 2006, The Swedish National Association of Ambulance Nurses and The Swedish Society of Nursing, 2012). In ambulance care RNs commonly perform advanced medical assessment and treatment independently of physicians in acute conditions (Lindström et al., 2015). Therefore, there are high expectations with respect to the competence of the RNs in ambulance care as they possess the highest-ranking medical responsibility for patient care in this setting (Wihlborg et al., 2014, Ahl and Nystrom, 2012).

The universities educating RNs for prehospital emergency care have a responsibility to guide them through the transition from being a nurse with basic training to being specialist nurses (Nilsson and Lindström.,

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2015). Nurse develops from being a novice without experience and with an obvious need of structure and rules into an advanced beginner formulating principles on acting, yet without enough experience to understand the entirety (Benner, 1984). Extensive experience transforms the nurse to an expert, signified by having acquired an intuition and understanding (ibid.). Advanced RN competence increases the quality of assessment able to be performed, such as in severe traumatic brain-injured patients (Falk et al., 2014). The Swedish educational content for RNs in ambulance care has been described as medical, nursing and contextual knowledge with the main focus on medical knowledge (Sjölin et al., 2015). There is, however, no general agreement regarding the required education and necessary competence for professionals working in the ambulance care setting. It is therefore of interest to explore the training among the three countries staffing ambulances with RNs. This can be seen as the first step in mapping training standards which is necessary before a consensus regarding educational content for RN's in ambulance care can be reached.

2. Aim

The aim of the study was to identify core content in Swedish, Finnish and Belgian university curricula in education on advanced level for RNs in ambulance care. The study also aimed to describe teachers' perception of the content that is required for the profession as a nurse in ambulance care.

3. Material and method

3.1. Study design

The study was conducted using a deductive multiple-case-study research design, inspired by Yin (2009). A multiple-case design allows a comparison of data from multiple cases and describes, explains and illustrates similarities and differences between the cases. The method is also suitable when there is a need to combine information on numerical and qualitative data (Yin, 2009). Different approaches of content analysis according to Hsieh and Shannon (2005) were used to analyze the data. Patricia Benner's "From Novice to Expert" (1984) and her following work were used to underpin theory in the area of expertise, aspects of practical knowledge and strategies for maintaining and developing expertise after training.

3.2. Setting and participants

Three European countries staffing ambulances with RNs were selected; Sweden, Finland and Belgium. Inclusion criteria for participating universities were offering an education for RNs in ambulance care at the advanced level. One university from each country was convenience sampled, forming three cases. Faculty interviewees were referred after initial e-mail invitations were sent to the dean or an equivalent educational manager in each university, so called snowball sampling (Patton, 2002).

Case A, *Sweden:* Sweden has exclusively advanced level emergency ambulances staffed with at least one RN (Lindström et al., 2015), most commonly with specialist education in prehospital emergency care. The other member of the staff can be an assistant nurse with one year of prehospital training and basic life support skills or an RN without specialist training. Physicians are present in advanced rapid response vehicles in a few counties (ibid.). The education for RNs in universities requires 180 credits in the European Credit Transfer System, ECTS, corresponding to three years of university study on a Bachelor level. The specialist nursing program in prehospital emergency care requires an additional 60 ECTS (1 year) at the one-year Master's degree level, and leads to the protected professional title of "Ambulance Nurse". The education focuses on skills and competencies for clinical practice in the ambulance care setting and in the selected university in Sweden clinical placements are carried out in ambulance services and the anesthesia ward (15 ECTS).

Case B, *Finland*: There are two levels of ambulances: basic and advanced level. At the basic level, the staff is professionally trained in health care, such as being an assistant nurse or firemen, as well as RNs without specialist training. The advanced level staff is a minimum of one emergency care nurse (Ensihoitala) or an RN with specialist training in emergency care (30 ECTS). The other member of the team has training in basic life support. Physicians are present in advanced rapid response units and helicopters. In Finland, the emergency care degree program is integrated into a four-year program for registered nurses at a university of applied science. It comprises 240 ECTS (4 years) in total and provides a bachelor's degree as well as competence to work in ambulance care, an emergency department (ED) or an intensive care unit (ICU). Clinical placements are performed in ambulance services, with additional rotations in the ED and ICU (23 ECTS).

Case C, *Belgium:* There is an ongoing change of moving towards a more uniform organization in the prehospital care in Belgium. At the participating study site, basic level ambulances are staffed with two Emergency Medical Technicians (EMT) with basic training in prehospital care. The advanced level unit; the "Paramedic Intervention Team", is staffed with one specialist RN in emergency and intensive care and one EMT with extended prehospital training. Physicians are present in advanced rapid response units together with an RN. Universities offer education for RNs providing 180 ECTS (3 years) at the bachelor level. Further specialist training takes place in the Advanced Bachelor's Program of Intensive and Emergency Care, 60 ECTS (1 year) providing competence to work in ambulance care services, the ED and ICU. Clinical placement is in ICU, ED and Emergency units (22 ECTS). There is no organized placement in ambulance care, but students typically work in the ambulance services and can spread the education over four years.

3.3. Data collection

Data were generated from curricula and interviews. Curricula were collected during the spring of 2015. The curricula were available on the universities websites and were identified in collaboration with teachers from the universities to ensure that all necessary data were accessed. Inclusion criteria were all course curricula concerning advanced level professional practice in the training for RNs in ambulance care. Content concerning scientific theory and methods and degree projects were excluded since these topics or subjects were described only in general words in the curricula, and not in structured fashion with the same information as other content.

Semi-structured interviews with teachers were conducted between December 2014 and – November 2015. The main questions targeted the teachers' perceptions of important knowledge or skills the students need to obtain during their education as well as how to prepare for clinical work in ambulance care. Four interviews were conducted with six respondents in total. Two teachers from each university were interviewed simultaneously from Swedish and Finnish universities. In Belgium, one teacher was interviewed in person, and one interview was performed by written correspondence as per request by the interviewee. All interviewed teachers were RN's and responsible for the training in ambulance care, except one. In Belgium one interviewee was an anesthesiologist responsible for the Paramedic Intervention Team but also teacher and lecturer in the program. The other teacher from Belgium were specialist nurse in ICU and emergency care with experience from ICU and ED. In Sweden both teachers were ambulance nurses with doctoral degree having clinical experience from ambulance care. The Finnish teachers were nurses with specialization in anesthesia- and theater care and x-ray. One of them had clinical experience from ambulance care. The same questions were processed in both the spoken and written interviews. Supplementary questions were asked in direct connection to individual responses during the interviews. In the written

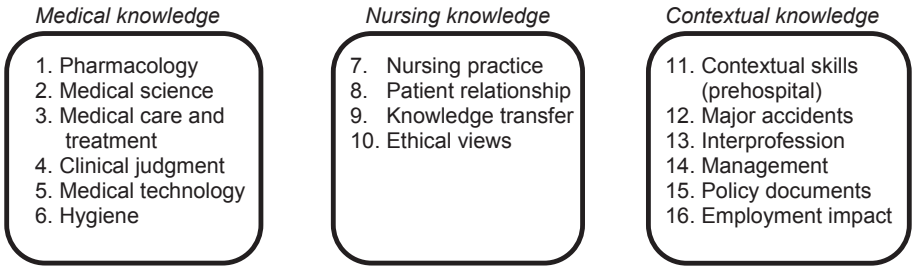

Fig. 1. Analytical framework, Categories and subcategories.

correspondence, follow-up questions were put – and answered by e-mail conversation in real time.

3.4. Data analysis

3.4.1. Process of analysis, curricula

The curricula were analyzed from each case separately with inspiration from directed content analysis as described by Hsieh and Shannon (2005). Subcategories and categories from the study by Sjölin et al. (2015) served as a template in analyzing the content (Fig. 1). In the first part of the analysis, all curricula were read carefully several times to understand the appearance and structure. Course content was extracted and transferred to spreadsheets, one for each case. Each sentence, piece of text, or group of bulleted words constituted a unit of analysis; they were then read through again, and keywords were identified. The keywords were placed under a suitable subcategory according to Fig. 1, template of the study by Sjölin et al. (2015). Keywords unable to be placed in these pre-existing subcategories formed a new subcategory called "No. 17: Unplaced keywords." The keywords in each case were then compiled by category and counted to identify the distribution and enable comparability.

In the second analysis, the keywords from each single subcategory were transferred into new custom spreadsheets with the three cases placed separately and next to each other. The keywords were interpreted and sorted after affiliation within each case, and similar content was placed beside each other. Finally, a summary of descriptions of similar content was formulated, dividing the data into three sets, one for each case. The content was put into a Venn diagram (Fig. 2) visualizing the distribution of common content in all cases, the union of content in combination of cases, and specific content separately (Wahlin, 2011). A member-check with recurrent discussions within the research group was held by placing keywords in the predetermined subcategories with the objective to achieve credibility in the process and ensure that the results become neutral or unbiased. When uncertainties arose, teachers were contacted to clarify and to understand the meaning of a keyword. This means that a researcher confirms their findings with experts in the same, or similar field of competence (Hsieh and Shannon, 2005; Lincoln and Guba, 1985).

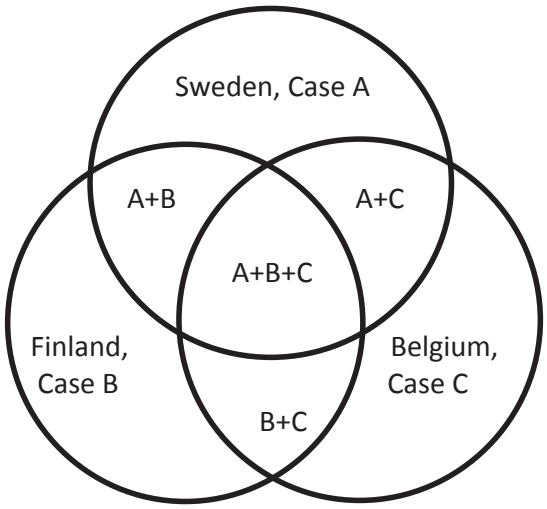

Fig. 2. Venn diagram, Content in predetermined subcategories.

3.4.2. Process of analysis, Interviews

The interviews were recorded and transcribed in direct connection to the interview in accordance with Hsieh and Shannon (2005). Data was read several times to acquire a sense of the wholeness, and then word by word to identify units of analysis, condensed and interpreted into codes reflecting the content in the sentences. After affiliation, the codes were sorted into meaningful clusters and interpreted into four arising categories. The main analysis was performed by HS. During the process of validation of placement in the categories and naming the new descriptions, a continuous process of member checking and peer review in the research group was performed (VL and LK). To increase credibility and accuracy of the findings, triangulation of the results was performed. The results were merged and interpreted in relation to each other and the predetermined categories to test for consistency (Patton 2001).

3.5. Ethical considerations

The study does not deal with personal data covered by the Ethics Act of Sweden, and therefore an ethical review was not required by the Ethical Board in Stockholm (Diary number 2013/1164 31/5). Additionally, no ethical permission was needed from ethical boards in Finland and Belgium; the interviews were approved by the management at corresponding universities.

4. Findings

4.1. Curricula

Twenty-eight course curricula were included; four from Sweden (Case A), 12 from Finland (Case B) and 12 from Belgium (Case C). There was a total of 405 keywords generated from the curricula which described the content. Altogether, 238 (59%) keywords were placed in the category "medical knowledge". "Nursing knowledge" is described in 82 (20%) keywords and "contextual knowledge" (prehospital) in 57 (14%). 28 (7%) keywords were without affinity to any of the 16 subcategories. Analyzing the prevalence and placement of keywords in the predetermined categories in the cases one by one showed that the distribution was similar within the categories (Table 1).

The Venn diagram visualized the common and separate content for each case (Fig. 2). In the overlap of all three cases (A + B + C), content from eleven of the sixteen predetermined subcategories was represented. These were: pharmacology, medical science, medical care and treatment, clinical judgement, nursing practice, patient relationship, knowledge transfer, ethical views, contextual skills, management and employment impact. Content from the subcategories for medical technology, hygiene, major accidents, interprofession and policy

Table 1
Distribution of keywords in each case.

	Medical	Nursing	Contextual	Unplaced	Total
	Knowledge *n (%)*	Knowledge *n (%)*	Knowledge *n (%)*	Keywords *n (%)*	*n*
Case A	29 (57)	10 (20)	12 (24)	0 (0)	51
Case B	102 (57)	39 (22)	24 (13)	13 (7)	178
Case C	107 (60)	33 (18)	21 (13)	15 (8)	176
Total *n (%)*	238 (59)	82 (20)	57 (14)	28 (7)	405

Case A = Sweden, Case B = Finland, Case C = Belgium n = number of keywords % = percent of total n for the specific case.

documents, was represented in only one or two of the cases.

Keywords placed in the category "medical knowledge" in the intersection between all three cases mainly described theoretical knowledge needed in medical care and treatment of time critical medical conditions in all ages. Content concerning assessment and decision making relating to medical needs and treatment were present, as well as content relating to evaluating performed care.

Focus on the common content regarding "nursing knowledge" was seen in prehospital nursing models and methods, as well as in nursing plans and documentation in specific conditions outside the hospital and during transportation. Ethical values and stance in nursing, approaches, behavior, interaction and partnership with the patient and his/her relatives was highlighted.

Concerning "contextual knowledge (prehospital)" Sweden (Case A) differed from Finland and Belgium (Case B and C) by having a higher proportion of keywords in the category contextual knowledge - twelve keywords (24%) compared to Finland and Belgium (Case B and C) who had 21 keywords (13%) in both. The common content contained only keywords from the subcategory of contextual skills and leadership. Different rescue techniques such as extrication and immobilization of the trauma patient, safe ambulance transport and ergonomics, together with leadership and organization in emergency nursing, and prehospital safety and risks in the environment, were all present.

The keywords not able to be placed in the preexisting subcategories described prevention and professional development but also learning activities for example simulation.

4.2. Interviews

The analysis of the interviews revealed four main categories: clinical reasoning, application of knowledge, personal abilities and scientific awareness (Table 2). All teachers agreed on the need of knowledge in clinical reasoning and application of knowledge. Teachers in Finland and Belgium (Case B and C) mentioned personal abilities, while scientific awareness was emphasized in Sweden and Belgium (Case A and C).

Table 2
Categorization of interviews.

Subcategories	Category
Assessment knowledge	Clinical reasoning
Draw conclusions	
Decision making	
Theory and practice	Application of knowledge
Skills	
Progression	
Contextual ambulance care	
Independence	Personal abilities
Multitasking	
Preparedness for incidents	
Team work	
Approach	
Understand research process	Scientific awareness
Produce research	
Implement research	

Clinical reasoning contained knowledge in safe assessment of the patient, drawing conclusions and decision making in different emergency conditions, as well as understanding consequences of treatment. The teachers agreed in all cases that the students need knowledge concerning clinical reasoning. Assessment tools and assessing the patients' condition in different situations in a correct and safe way were essential. All teachers also discussed that they wanted the student to understand difficulties in assessing the patient and to learn the best technique for this. Drawing conclusions from information and assessment results, as well as understanding consequences of treatment and making decisions concerning healthcare interventions were also described as important. One of the teachers concluded what all the teachers had discussed by saying, "In the training of an emergency nurse, we need to offer a specific path to detecting problems and then solving them" (Belgium, Case C).

Application of knowledge represents the transition of theory into practice, and training of contextual skills. The interviews revealed that the development and progression of knowledge of certain skills, specific contextual equipment, and special ambulance care situations and current guidelines, were of great importance. One teacher said: "We actually give them some kind of hands-on knowledge […] because otherwise it's very difficult to assimilate the theoretical knowledge as well" (Sweden, Case A). One teacher illuminated aspects of difficulties when caring and nursing collide with technique: "And what they have to learn is that in their profession of caring for a patient … or nursing a patient, they have to switch to a more technical approach" (Belgium, Case C).

The category *personal abilities* involve the capacity to develop skills in multitasking and to work independently. Training of personal abilities such as team work and communication and leadership skills were also expressed to be important; "[…] nowadays it's very important how the teamwork is […]. Are they thinking how they can avoid crises with solid teamwork […] and communication?" (Finland, Case B). The teachers in Belgium (Case C) also believed that other personal characteristics were needed to be developed and trained, describing it as "making decisions independently" and "multitasking," in other words, doing and noting several things at the same time and being prepared for emergency incidents. "Outside the hospital, they have to make their own decisions; they don't have backup from physicians ready and available on the floor." Additionally, "Using monitoring equipment, interpreting monitoring equipment without losing contact with the patient, that is something they especially have to learn" (Belgium, Case C).

Having *scientific awareness*, in other words, teaching according to the scientific process as well as discussing how to implement and use new research findings, were underlined by the teachers in Sweden (Case A): "[…] they can bring in a clear scientific view that in some way can both make use of research findings, and produce results accordingly, or at least to understand how the research was produced." Giving the students the ability to understand the benefits of working according to current evidence based care had a high priority in Belgium (Case C): "[they must] Know how to act, why to act, and this according to the most recent evidence based knowledge."

5. Discussion

5.1. Discussion of findings

The core content of the three European countries; Sweden, Finland and Belgium, staffing ambulances with RNs, was similar and emphasized medical knowledge and content concerning medical science, medical care and treatment and clinical judgment. The teachers' perception of the content required for profession competence as a nurse in ambulance care could be categorized as clinical reasoning, application of knowledge, personal abilities and scientific awareness. There is no

consensus concerning the knowledge and skills required for these RNs. The current study illustrates the tools required for the expert nurse in prehospital emergency care. Patricia Benner explained that within the practical discipline of nursing one must undertake knowledge development over time by studying the underlying theory, and then practicing the intended discipline (Benner, 1984). This develops the nurse in receiving a holistic view and facilitates the ability to perform qualified assessments and decision making in caring situations.

The common content in all three cases indicates a focus on medical knowledge as well as several of the corresponding competencies in the category of medical knowledge; they were all highly ranked by an expert panel with a predominant representation of clinically active ambulance nurses, confirming the need of medical knowledge (Wihlborg et al., 2014). The interviewed teachers were also in complete agreement that clinical reasoning including having assessment knowledge and being able to make decisions as well as applying theory as practical knowledge, are all essential. Knowledge concerning the medical sciences together with nurses' skills, bring a higher professional level to ambulance care, and competence in these disciplines is therefore required (Melby and Ryan, 2005; Wireklint Sundström and Dahlberg, 2011; Holmberg and Fagerberg, 2010).

Nursing knowledge is present in only approximately 20 percent of all cases, a similar proportion as the previous study by Sjölin et al. (2015). This could be related to the fact that the basic program for RNs contains more knowledge in nursing, applicable in every nursing situation. The similar content relating to nursing knowledge from the cases in the current study focused on nursing models, methods and approach, as well as descriptions of prehospital nursing and interaction with relatives which can all be seen as knowledge that strengthens the RNs' skills which is necessary in caring relationships (Ahl and Nystrom, 2012). However, it has been pointed out that a new nursing situation is needed in order to train the ability to discern important factors in caring situations which suggests an increased need of contextual nursing knowledge (Benner et al., 2010). The RNs in specialist education in prehospital care are considered to be experienced nurses in a new context rather than students (Nilsson and Lindström, 2015), which is the case in Sweden and Belgium, but not in Finland, where specialization is embedded in the education. Some ethical values were mentioned in general but nothing specific concerning cultural competence. Today's situation of increased mobility between European countries and the influx of asylum seekers and refugees' places considerable demands on RNs' knowledge of cultural diversity. Swedish nursing education has failed in implementing existing research concerning work in a multiethnic society, thus confirming the need of illuminating the subject (Momeni et al., 2008).

The content of contextual knowledge differed markedly and the university from Sweden (Case A) had more prehospital subjects than the other two universities. However, the Venn diagram showed that the same contextual content was clearly represented in both Finland and Belgium (Case B and C). The education in Sweden (Case A) aims to train for working in the ambulance care setting, while Finland and Belgium (Cases B and C) provide competence for working in ambulances, the ED and ICU, which can explain the skewed distribution. Several of the teachers mentioned that knowledge and ability to handle situations according to standing orders and guidelines was important. In the current study, common content concerning major incidents and interprofessional content were lacking. Working as an RN in the ambulance care setting includes being first on the scene and medically responsible in major incidents and disasters. The degree of difficulty in the situation and external factors such as collaboration with a number of different operators, for example, makes decision making in such situations more complex to master (Gunnarsson and Warrén Stomberg, 2009). Leadership and management must also be trained to develop preparedness for terror attacks, natural disasters and other events, not only for nursing practice. Other changes in society mean that health care professionals sometimes end up in threatening and violent situations, and therefore cooperation and interprofessional training with the fire department and police is important.

The three countries in our study staff ambulances with RNs educated to an advanced level, especially in ambulance care. This may be seen as possessing a higher medical competence than the staff in other countries and could have a positive effect in care in specific conditions, thus improving outcome (Fischer et al., 2011). A prior study supports this by showing that RNs with education at a Bachelors' level reduce in-hospital deaths (Aiken et al., 2014). The situation and environment constantly change in the ambulance care setting and there is a need of further research concerning the knowledge needed for this clinical reality. The spectra of the patients' problems and needs vary from non-medical to life-threatening conditions, motivating that the RNs' competence and knowledge in different emergency care situations must be broad (Dahlberg et al., 2003; Ahl and Nystrom, 2012).

5.2. Methodological reflections and limitations

The three participating university programs differ so the results may not be comparable in all ways. Finnish education, which is integrated, was different with respect to data separation; the program contained a number of curricula with content concerning all subjects needed as an RN and curricula about emergency care were present on both basic and advanced level. In this study curricula on advanced level were identified and extracted, with a risk of missing of some content placed in the basic courses. The nurses in Sweden and Belgium are furthermore developed in their professional role as nurses, and the education is more likely tailored to this. Conversely, the focus in Belgium is on the in-hospital context rather than prehospital as compared with Sweden. In the data collection, curricula with content concerning scientific theory and methods and thesis were excluded according to the choice of studying content concerning professional practice in the ambulance care setting. It could have been an option to include these subjects as it is indicated that RNs with higher academic education, such as bachelor- or a master degree improve survival in hospital (Aiken et al., 2014).

One of the interviewees answered the questions by a written conversation pre-request of the interviewee. Interviews performed by email were performed asynchronous interaction which has its disadvantages (Kvale and Brinkmann, 2009), including that it can be difficult to obtain detailed descriptions and, as an interviewer, you have no possibility to interpret body language and spoken language. However, the same questions were processed in the spoken and written interviews in order to achieve as similar conditions as possible. In the interviews in person, supplementary questions were asked in direct connection to individual answers. In the written correspondence, follow-up questions were asked – and answered by an ongoing e-mail conversation.

It can be difficulties in the analyzing process such as identifying key categories when there is an absence of contextual knowledge (Hsieh and Shannon, 2005). In this study, the main author and one co-author have clinical experience from both ambulance care and the specialist nursing program in prehospital emergency care. This leads to an increased understanding of the data and the possibility of a deeper interpretation in the analysis.

In the analysis of the curricula, some subcategories contained more keywords than others, but one cannot assume that the number of words necessarily means that there is more study time disposed on the subject. There were only six interviews in the study which could be perceived as too few. However, the interviews give deepened and complementary information about focus in the education and how some parts of the content in curricula is taught. The results cannot be seen as transferable, but may be considered as an indication of important subjects in the education of RNs in ambulance care.

6. Conclusions and implications

The main results showed commonness with respect to core content

in the education on advanced level for RNs in ambulance care which indicates that the requirements of nurses in ambulance care look similar in the selected countries. Content concerning contextual subjects differed between the three universities but the emphasis in curricula had a focus on medical science, medical care and treatment, and clinical judgment. This may imply that there is a need for in-depth medical knowledge, but it is unclear how this could have an impact on patient outcome. The teachers aimed for the students to acquire a broad competence in clinical reasoning by implementing theory into practice, as well as developing the students' personal aptitude and instilling a scientific awareness. This shows that the curricula in some part reflect what the teachers in this study consider to be most important for the RNs working in the ambulance service. The consistency in the curricula suggest that it is possible to create a common curriculum for training of RNs working in ambulance care, but it is uncertain if there is a possibility to create conditions for implementation across national borders. Research is needed to identify the impact for the patient's outcome in relation to the RN's increased knowledge after the specialist training in prehospital emergency care. It is also of interest to determine circumstances necessary to create and implement an international recommendation of content in curriculum for specialist nurses in prehospital emergency care.

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Conflict of interrests

There are no financial competing interests (political, religious, ideological, academic, intellectual, commercial or any other) to declare in relation to this manuscript.

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Ethical approval details

The study does not deal with personal data covered by the Ethics Act of Sweden, and therefore an ethical review was not required by the Ethical Board in Stockholm (Diary number 2013/1164–31/5). Additionally, no ethical permission was needed from Finland's' and Belgium's' ethical boards; the interviews were approved by the management at corresponding universities.

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