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# A master programme in cardiovascular nursing; a two-year follow-up

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## ABSTRACT

The aim of this study was to evaluate professional development and promotion as well as whether the new competence was requested after completion of a one-year master programme (MP) in Cardiovascular (CV) nursing. In Sweden the first one-year MP within the CV area took place between 2003 and 2005 at Halmstad University with a follow-up in 2007. The sample consisted of seventeen former students who had completed the MP. A questionnaire was developed comprising twenty items grouped into three main sections.

Most of the nurses stated that their knowledge was requested and that they had developed their professional attitude, skills and knowledge. Seven of the nurses had a new position and five of them had advanced in terms of leadership. In three cases, the master exam was critical for the employers' decision. Six of the nurses who had a new post had obtained an increase in salary. In conclusion, the MP led to increased competence as well as improved career prospects. Information about the MP should be available at clinics, and collaboration between clinical practice and education is necessary in order to ensure relevant use of master educated nurses' competence.

**KEYWORDS:** Competence, education

Cardiovascular (CV) care is highly specialised and changes over time, thus increasing the need for well-educated nurses. Competence statements have been formulated in order to identify the knowledge and skills required for safe, effective and competent care within the CV area (1). A competence ladder has also been developed and serves as a guide for clinical and educational development (1,2). The reasons for the introduction of MPs in CV nursing are the high degree of specialisation in the CV area, the competence statements on CV care, the development of a competence ladder in addition to the large number of patients with various forms of CV disease. A master education is important for the individual nurse's career development as well as critical for keeping pace with the rapid changes and advances in the area (3,4). In 2003 a nationwide survey of Swedish university-level nursing schools showed that there was no master-level education in CV care (5,6). This, together with the fact that master education serve as a springboard for new researchers within this very active research area (7), motivated a university-level nursing school to develop and provide a one-year MP. However, the professional importance of a new education will remain unclear if no post exam follow-up is performed. Hence, the aim of this study was to evaluate requested competence, professional development and promotion after completion of a one-year MP in CV nursing.

## Method

In Sweden the first one-year MP in CV nursing took place between 2003 and 2005 at Halmstad University. The curriculum was developed in line with advanced level European education. The entry criterion was 180 ECTS (European Credit Transfer System) in nursing. A follow-up was performed in 2007 in accordance with regulations of the university. The sample consisted of all seventeen former students who had completed the MP. The development of the questionnaire was influenced by Whyte et al.'s study (3) and designed by the five authors, all of whom have vast experience of CV nursing. In order to ensure face and content validity, the authors' opinions about relevant questions were obtained and resubmitted to them for further reflection, which was repeated until negotiated consensus was reached (8). The 20 items were grouped into three main sections comprising 4, 8 and 8 items respectively in addition to space for comments. 1) Competence requested (by managers/colleagues) was measured by a yes/no response. An affirmative answer was followed by the questions «By whom?» and «In what way?» while a negative answer was probed by «What could be the reason?» and «Have you been active in trying to arouse managers'/colleagues' interest?». 2) Professional development was measured by questions about increased awareness and competence, initiation of development, continuous education and/or plans for further education, participation in national and/or international conferences, contributions in the form of abstracts, the writing of scientific papers and active updating of knowledge, which

were answered by means of a yes/no response. 3) Promotion (advancement in terms of position, leadership, salary) was measured by the question, «Do you have a new position?» with a yes/no response, which was followed by statements with the response alternatives of agree/disagree. Statements related to advancement, leadership, project leadership, the master exam as a condition for the appointment, increased salary and satisfaction with salary followed a positive answer, while statements related to the availability of new employment and willingness to apply for a new position followed a negative answer. The questionnaire was distributed to the respondents by post, together with a prepaid envelope and an information letter, stating that confidentiality was guaranteed and that participation was voluntary. A reminder was sent after two weeks to those who had failed to respond. Fifteen of the former students answered the questionnaire. Data were analysed using a Microsoft Excel programme and deductive qualitative content analysis of the main sections was carried out (9).

## Results

### Competence requested

Ten of the nurses who had completed the MP stated that their competence was requested, while three answered «no» and two both «yes and no». Those who answered «yes» revealed that their employers, CV teams, colleagues and/or nurse educators had shown an interest in and wanted to know more about the knowledge and competence thus obtained. The nurses had been requested to teach theoretical and clinical CV nursing at both basic and advanced level. They were invited to present their master thesis, assume the role of project leader and supervise students' papers. Responsibility for students' clinical education was also mentioned. Specific competences were demanded, such as supervision of the interpretation of ECGs and the development of a nursing clinic for the investigation and interpretation of echocardiography. Those who answered in the negative revealed that their employers lacked understanding of the usefulness of a nurse who had completed the MP, in spite of the fact that he or she had been involved in e.g. teaching and project development. The two yes/no-responders stated that, on the one hand, nurse educators were interested in their competence for teaching nursing students but that, on the other, the clinic displayed a lack of interest, as no financial support for professional development was forthcoming.

### Professional development

Thirteen of the nurses who had completed the MP reported a higher degree of professional awareness and self-assurance when dealing with patients and next-of-kin. One respondent had no contact with patients and one answer was missing. The nurses revealed that they had developed their professional attitude, skills and knowledge to a level that allowed them to see the importance of the way in which CV care is provi-

ded as well as what is provided. This awareness was significant in encounters and communication with patients and next-of-kin as well as in the supervision of students and colleagues. The participants had also increased their competence in managing the nursing process.

Ten of the nurses were of the opinion that the master education had positively influenced them to take more initiatives in the area of nursing development, which was described in terms of team leadership in the development of quality assurance in CV nursing. The nurses also took initiatives in teaching ECG and echocardiography examination as well as in leading research projects. Reasons for not taking initiatives were expressed in terms of lack of time and a suitable forum for development. After the one-year master exam, ten of the nurses were planning to take or had taken part in further education, such as master of nursing and doctoral studies, but also courses in statistics, evidence-based nursing, nursing of heart transplant patients, leadership, supervision of students, echocardiography, emergency care, pharmacology and bereavement management. Four nurses had participated in national and international conferences and one had made an oral presentation. Two had worked on research manuscripts and ten reported that they were active in updating their knowledge within CV care by searching for new literature in the library and via databases as well as taking a more critical approach in the analysis of research articles.

### Promotion

Seven of the nurses had a new position, five of whom had advanced in terms of leadership. In three cases, the master exam was critical for the employer's decision. Two of the nurses who had not changed their position intended to do so, while six were satisfied with their present employment. Six of the nurses who had a new post had obtained an increase in salary, with which three were satisfied and three were not.

### Discussion and conclusion

While the small sample size is a limitation, it represented the total population of nurses with the master exam in CV nursing in Sweden at the time for the study. Furthermore, two nurses did not respond. They received one reminder, but due to ethical considerations, no follow-up took place. The reasons behind the non-responses may be lack of development after the exam or a problematic family or work situation. The measurement concerned competence requested, professional development and promotion. However, subjective measurement of professional development could be questioned. The aim was to evaluate the subjective experience of competence after the master education, but in the future, objective measurements will be possible due to the increasing number of master educated nurses. Nevertheless, we consider the result fairly reasonable due to the validation of the instrument, the high response rate and its agreement with other studies (3, 12).

The master exam in CV nursing had a positive impact on professional competence, development and promotion, which was also found by Whyte et al. (3). Managers and colleagues sought the knowledge of nurses who had completed the MP, and these nurses became a driving force in professional development and achieved promotion. Lack of interest on part of managers and colleagues hindered some of the respondents when it came to the implementation of development strategies. Managers are important persons in terms of being aware of and valuing the master educated nurses' skills. Positive attitudes can stimulate the development of nursing practice as well as further education. The nurses were asked to teach and lead projects, which is a positive aspect, as there are difficulties involved in implementing the results of nursing research in everyday clinical practice. The nurses were trained in CV nursing and familiar with its rapid development, which made them more likely to use research results. In other studies nurses' attitude towards research and development was described as mainly positive, but despite that half of them never used research results in their everyday work (10,11). Nurses need to take their academic responsibility seriously. The use of research results is crucial for an advanced level of nursing practice. The nurses, who completed the MP were a driving force in professional development, as they had enhanced their professional stance and skills and became aware that the way in which care is provided is as critical as what is provided. This was important in encounters and communication with patients and next-of-kin as well as for the supervision of students' and colleagues' reflection on CV nursing practice. The nurses were also more competent in terms of managing the CV nursing process, which is in

line with Pelletier et al. (12). This process involves anxious patients and next-of-kin, a situation that requires skills in all dimensions. The master educated nurses had deepened their knowledge of the speciality but had not obtained leadership training during the one-year MP. This made the programme incomplete, as specialisation and leadership go hand in hand and it is therefore necessary to include leadership training in future two-year CV MPs. In most cases the master degree was not among the qualifications required when applying for a new position, probably due to lack of knowledge about the master education, since it was the first MP in CV nursing in Sweden (5). The nurses had passed a master exam, reached an advanced level of CV care and were highly competent, thus positions of responsibility and salary increases could be expected. In just three cases, the master exam was critical for the employers' decision when the nurses applied for a new position. In the absence of descriptions of the type of education required at the different levels of the competence ladder (1,2) there is a risk of employers being vague in their requirements, leading to neither a redefinition of duties nor increased salaries.

In conclusion, the one-year MP had led to increased competence, a higher degree of professional awareness and self-assurance as well as enhancing future career prospects. An implication is that information about the MP should be provided at clinics, in the same way as collaboration should also take place between clinics and education in order to ensure the relevant use of master educated nurses' competence. Furthermore, a two-year CV MP including leadership training is an important future development in the educational area. Evaluation of CV MPs should focus not only students' subjective views but also those of patients and managers.

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