Original Article

New Graduate Nurses' Developmental Trajectories for Capability Beliefs Concerning Core Competencies for Healthcare Professionals: A National Cohort Study on Patient-Centered Care, Teamwork, and Evidence-based Practice

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Keywords
new graduate nurses, capability beliefs, social cognitive theory, core competencies, national cohort study, longitudinal, linear latent growth modeling

ABSTRACT

Background: This study aimed to describe the developmental trajectories of registered nurses' capability beliefs during their first 3 years of practice. The focus was on three core competencies for health professionals—patient-centered care, teamwork, and evidence-based practice.

Methods: A national cohort of registered nurses ($n = 1,205$) was recruited during their nursing education and subsequently surveyed yearly during the first 3 years of working life. The survey included 16 items on capability beliefs divided into three subscales for the assessment of patient-centered care, teamwork, and evidence-based practice, and the data were analyzed with linear latent growth modeling.

Results: The nurses' capability beliefs for patient-centered care increased over the three first years of working life, their capability beliefs for evidence-based practice were stable over the 3 years, and their capability beliefs for teamwork showed a downward trend.

Linking Evidence to Action: Through collaboration between nursing education and clinical practice, the transition to work life could be supported and competence development in newly graduated nurses could be enhanced to help them master the core competencies. Future research should focus on determining which factors impact the development of capability beliefs in new nurses and how these factors can be developed by testing interventions.

BACKGROUND

Concerns about quality and safety in health care have increased the demand for change in the educational preparation of healthcare professionals, and more emphasis is now placed on critical thinking and scientific perspectives. In addition, as a result of the reports on the gap between available knowledge and current practice in health care, there has been an effort to improve the education of healthcare professionals through the introduction of core competencies. The proposed core competencies include patient-centered care, teamwork, evidence-based practice (EBP), quality improvement, patient safety, and informatics (Institute of Medicine [IOM], 2003). In a large longitudinal study on individual and work-related factors associated with professional development and health among new nurses, data on three of these competencies: patient-centered care, teamwork, and EBP have been collected (Rudman, Omne-Ponten, Wallin, & Gustavsson, 2010). Therefore, this study was focused on new graduate nurses' capability beliefs for the three competencies of patient-centered care, teamwork, and EBP.

To understand health professionals' ability to practice the core competencies, it is important to study their capability beliefs (also called self-efficacy) regarding these competencies. The concept of capability beliefs is described as a person's belief in their ability to succeed in specific situations (Bandura, 1997). A person with high-capability beliefs is more likely to view certain tasks as something to be mastered than as something to be avoided. Godin, Belanger-Gravel, Eccles, and Grimshaw (2008) showed in a systematic review that beliefs about capabilities were the most powerful predictors related to certain behaviors, and thus they can be a useful proxy for competent professional practice.

Patient-centered care is defined as recognizing the patient as the source of control and as a full partner in providing care and as respecting the patient's needs, values, and preferences

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(Cronenwett et al., 2007). We were not able to identify any previous studies investigating nurses' or nursing students' capability beliefs regarding patient-centered care.

Teamwork is defined as the collaborative interaction among professional members of the team to provide high-quality individualized patient care (IOM, 2003). Teamwork is expected to improve the quality of care as adverse events in health care have often been attributed to a breakdown in teamwork and communication (Manser, 2009). Interprofessional learning during undergraduate education so as to prepare for working in teams has been studied only to a limited extent (Olson & Bialocerkowski, 2014), and we did not find any studies addressing capability beliefs in interprofessional teamwork among newly graduated health care professionals.

EBP is about integrating the best available research findings with clinical expertise and patients' preferences in delivering care. There are few studies focusing on nurses' beliefs regarding their capability to practice the principles of EBP. However, in one study, Majid et al. (2011) investigated EBP and clinical decision-making in 1,500 nurses who reported moderate levels of capability beliefs for EBP. Melnyk and Fineout-Overholt also have studied the relationship between EBP beliefs and EBP implementation and their studies have supported strong positive correlations between these two variables (Melnyk, Fineout-Overholt & Mays, 2008; Melnyk, Fineout-Overholt, Giggleman & Cruz, 2010).

In a previous study by our team on national cohorts of nursing students and nurses during their five first years of professional practice, nursing students reported high capability beliefs regarding EBP skills operationalized according to Sackett's definition (Florin, Ehrenberg, Wallin, & Gustavsson, 2012). However, the development of capability beliefs for EBP early in the nurses' career has not been explored longitudinally.

Bandura's four basic principles (mastery experiences, role modeling, social persuasion, and a controllable amount of stress) are useful for understanding the development of capability beliefs (Bandura, 1997). Referring to these principles and to Benner's work on stages of clinical competence (Benner, 1984), one might expect that new nurses' capability beliefs for performing the core competencies would increase gradually during the first few years of professional practice.

To summarize, there have been few, if any, evaluations of the trajectories of the core competencies among new nurses. Thus, to enhance the ability to better prepare students in undergraduate education and to support nurses in their early career, this study aims to describe the developmental trajectories of registered nurses' capability beliefs during their first 3 years of practice concerning the three core competencies of patient-centered care, teamwork, and EBP.

METHODS

Subjects and Design

Data for this study were derived from the larger Longitudinal Analysis of Nursing Education study where individual and work-related factors associated with professional development and health among nurses was investigated in a longitudinal design. The subjects were recruited during their nursing education and subsequently followed yearly during the first 3 years after they began working in the healthcare sector (Rudman et al., 2010). In this paper, the data were based on a national cohort of registered nurses who graduated from Swedish nursing education in 2006. All students ($n = 2{,}107$) registered in the final semester from the 26 universities providing undergraduate nursing education were invited, and 1,459 (69%) consented to participate (Figure 1). Postal surveys at 1–3 years after graduation had response rates of 74.4%, 60.1%, and 52.6%, respectively. Nineteen nurses left the cohort during these 3 years resulting in a sample of 1,205 participants who answered the survey at least one time. The mean age was 29.9 years (*SD* 7.1 years; range 21–54 years).

All participants received written information about the study, including details about confidentiality and that they could terminate their participation at any time. Questionnaires were sent by Statistics Sweden (SCB) to each participant's home address. The questionnaire was initially pilot-tested and reviewed at the technical and language laboratory of SCB. Approval for the study was received from the Research Ethics Committee at the Karolinska Institutet (Dnr KI 01-045 [2001-05-14; 2003-12-29]).

Data Analysis

Statistical models used in longitudinal data analysis aim to summarize (with as few parameters as possible) the pattern of repeated measures taken from a sample of individuals over time. Longitudinal modeling starts with testing a model implying that the baseline values for each individual are enough to summarize the longitudinal data set. That is, a model that reflects that individuals do not change over time. In statistical terms, this model is called the random intercept model and we will refer to this as the "no change over time" model. Two parameters are estimated in this model: The baseline mean value and the individual differences around this mean value. In the next step, a model is tested assuming that individuals have changed over time. In statistical terms, this model is called the random intercept/random slope model and we will refer to this as the "change over time" model. Based on the previous model (the no change model), two additional parameters are estimated: one slope describing a general change trajectory and the individual variability around this slope (i.e., individual differences in the rate of change). In this second model, it is also possible to estimate the association between individual differences in baseline values and rates of change.

To choose one model as more valid in summarizing the longitudinal data set, the fit of each model is scrutinized. This is done by testing if the estimated parameters are statistically significant and indices of model fit reflect good fit. Criteria for good fit is based on previous simulations (Brown, 2006). Specifically, good model fit was indicated by a standardized root mean square residual below 0.08, a root mean square

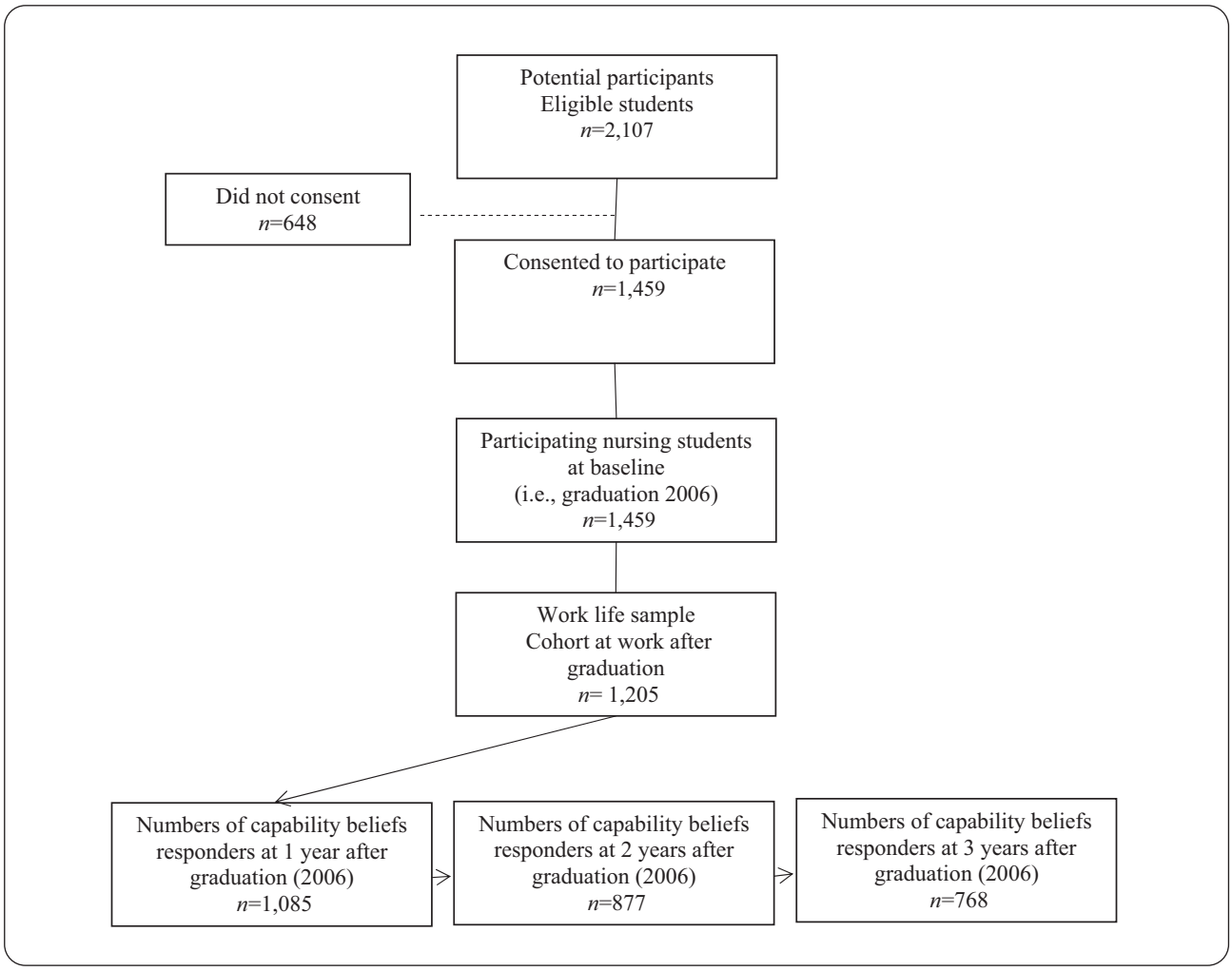

Figure 1. Description of the sample selection, participant recruitment, consent, timing of follow-ups, work life sample and the wave response of the three data collections.

error of approximation of around 0.05, a nonsignificant close fit test, and a comparative fit index of around 0.95. Thus, in order to choose the change model as more valid than the no change model, additional estimated parameters reflecting change must be statistically significant and the model must show better model fit.

The longitudinal models and its parameters were based on the linear latent growth model, estimated using robust maximum likelihood in Mplus 7.2 (Informer Technologies, Inc., Los Angeles, CA; Muthén & Muthén, 1998–2013). This method uses all available responses in the longitudinal data and provides the most efficient and least biased parameter estimates (Endlers, 2010). However, this assumes that data are completely missing at random or missing at random. In this study, the possible influence of missingness on the estimated growth parameters was evaluated by comparing the levels of the three study variables at one measurement wave with attrition at the following wave, and no significant associations were seen.

Measurement

To perform the longitudinal analysis of the development of capability beliefs, we used an item pool of capability beliefs with a focus on tasks related to the three core competencies. This item pool comprised 16 items (seven for patient-centered care, three for teamwork, and six for EBP; Table 1). The items for patient-centered care were based on the regulation for registered nurses issued by the Swedish National Board of Health and Welfare. Teamwork was operationalized from Banduras theoretical definition of people's shared beliefs in their collective power to produce desired results (Bandura, 2000), and the EBP items were derived from Sackett's definition of EBP (Sackett, Richardson, Rosenberg, & Haynes, 2000). The respondents were asked to rate, on an 11-point scale from 0% (cannot) to 100 % (definitely can), how confident they were about performing the tasks defined in each item. The construction of items followed the guidelines for the development of capability belief scales (Bandura, 2006).

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Table 1. Factor Structure for the Three Core Competencies of Patient-Centered Care, Teamwork, and EBP After 1, 2, and 3 Years in Working Life

	Factor loadings								
	Year 1. Factor:			Year 2. Factor:			Year 3. Factor:		
Items:	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
Patient-centered care items									
Reorganize your work in unforeseen situations	.681	.185	.165	.681	.234	.213	.699	.192	.162
Answer patients' questions about health status and treatment	.726	.156	.092	.646	.237	.121	.704	.178	.113
Assess patients' needs of nursing interventions	.859	.142	.071	.857	.144	.090	.841	.167	.085
Execute nursing interventions	.889	.134	.050	.862	.179	.100	.870	.190	.060
Evaluate the effect of given interventions	.869	.159	.053	.863	.205	.109	.861	.227	.069
Maintain a professional role	.657	.168	.145	.681	.180	.143	.731	.147	.139
Include patients in clinical decision-making	.618	.243	.216	.605	.277	.153	.638	.299	.161
Teamwork items									
Together contribute to a good working climate	.156	.063	.743	.172	.082	.761	.180	.004	.805
Together, even under high-pressure conditions, provide good care	.182	.016	.809	.236	.038	.789	.132	.097	.817
Together influence care in the desired direction	.079	.096	.784	.084	.061	.762	.106	.087	.750
Evidence-based practice items									
Formulate questions to search for research-based knowledge	.182	.761	−.019	.249	.763	.073	.203	.798	.026
Use databases to search for knowledge	.092	.735	.035	.158	.721	.067	.151	.759	.055
Use other information sources	.124	.690	.041	.282	.635	.012	.221	.674	.103
Appraise research reports	.141	.805	.018	.174	.832	.019	.180	.841	.012
Contribute to change by implementing current knowledge	.231	.757	.130	.200	.809	.122	.234	.805	.110
Participate in evaluating whether clinical practice reflects current knowledge	.257	.788	.080	.190	.845	.095	.206	.848	.055

Three explorative principal axis factor analyses (at 1–3 years after graduation) were performed in order to confirm the intended three-dimensional structure (i.e., reflecting the three core competences). Inspection of eigenvalues plotted in a scree plot suggested an extraction of three factors that explained 62%, 63%, and 65% of the total variance at the 1-, 2-, and 3-year data collections. Factor loadings for items on these three varimax-rotated factors from each data collection suggested that the 16 items could form three different scales reflecting capability beliefs in patient-centered care, teamwork, and EBP (Table 1). Scale scores were constructed by computing the mean for each individual's item responses. Cronbach's alpha was used to estimate the reliability for each scale. For the seven-item patient-centered care scale, estimates ranged between 0.90 and 0.91. Estimates for the three-item teamwork scale ranged from 0.70 to 0.73, and for the six-item EBP scale from 0.87 to 0.90.

RESULTS

For the longitudinal data on new nurses' capability beliefs for patient-centered care, the model fit indices clearly favored the model describing change over time (Table 2). The longitudinal results revealed that the new nurses' capability beliefs on average increased by about 1 unit each year (slope = 0.97; Figure 2). In addition, the estimated variance around the slope was found to be statistically significant ($p = .01$), reflecting a presence of individual differences in the rate of change. Thus, a proportion of the respondents showed a steeper increase over time (i.e., slope values higher than 0.97) and another proportion showed a less steep increase over time (i.e., slope values lower than 0.97). Moreover, these individual differences in rate of change were significantly associated with individual differences in initial levels (i.e., there was significant covariance between initial levels and the rate of change; $p = .01$). With regard to capability

Table 2. Longitudinal Models of Stability and Change in Capability Beliefs During the First 3 Years of Working Life. Estimates and Model Fits Are From Linear Growth Curve Models Implying (1) No Change Over Time or (2) Change Over Time

		Evaluation of model fit			Longitudinal parameters				
	χ^2	CFI	RMSEA	SRMR	Intercept	Slope	Var (I)	Var (S)	Cov (I,S)
(1) No change over time									
Efficacy for									
… patient-centered care	31.4***	.805	.075	.175	84.6***		64.2***		
… teamwork	19.7***	.940	.057	.082	77.5***		100.3***		
… evidence-based practice	11.6*	.980	.040	.080	77.1***		130.2***		
(2) Change over time									
Efficacy for									
… patient-centered care	1.263	.998	.015	.009	83.7***	.97***	79.9***	8.8**	−11.4**
… teamwork	1.197	.999	.013	.010	78.2***	−.87**	110.6***	20.8**	−12.1
… evidence-based practice	0.328	.999	.010	.004	77.3***	−.37	77.3***	17.8**	−14.3*

Note. Model 1 = No change over time, i.e., the random intercept model with 4 degrees of freedom; Model 2 = Change over time, i.e., the random intercept and random slope model with 1 degree of freedom.

beliefs for patient-centered care, this association indicates that nurses with initial lower levels showed a steeper increase over time.

The model reflecting change in new nurses' capability beliefs for teamwork showed better fit (as reflected in lower χ^2; higher CFI, lower RMSEA, and lower SRMR) to the longitudinal data than the model implying stable levels of all individuals' responses over time (Table 2). The results of the change model showed that new nurses decreased in their capability beliefs for teamwork over time with an average decrease of a little less than 1 unit each year (slope = −0.87; Figure 2). The estimated variance around the slope was found to be statistically significant ($p = .01$), reflecting the presence of individual differences in the rate of change in capability beliefs for teamwork. Thus, a proportion of the respondents showed a steeper decrease over time (i.e., slope values lower than −0.87) and another proportion showed a less steep decrease over time (i.e., slope values higher than −0.87). However, no significant association was found between initial levels of teamwork and rates of change in teamwork, although the direction of this trend indicated that those with initial high levels had a steeper decrease.

Finally, a model implying stability and a model implying change were tested on capability beliefs for EBP. The model implying change showed better fit, but the model describing stability over time still showed acceptable fit to the longitudinal data (Table 2). The average decrease (slope = −0.37 units) did not deviate significantly from zero. Therefore, the stability model seemed to sufficiently address individual trajectories of capability beliefs for EBP and suggested that the initial levels for EBP were stable over time.

DISCUSSION

This longitudinal study on the trajectories for newly graduated nurses showed different results for their capability beliefs regarding the three core competencies that have been proposed for education of healthcare professionals. The nurses' capability beliefs for patient-centered care increased over the three first years of working life, their capability beliefs for EBP were stable over the 3 years, and the development of capability beliefs for teamwork showed a downward trend. These different trajectories will be discussed using the four basic principles of Bandura's observational learning model for enhancing capability beliefs:

1. mastery experiences,
2. role modeling,
3. social persuasion,
4. and a controllable amount of stress (Bandura, 1997).

These principles are strongly correlated to contextual factors in one's work, and these will also be discussed. Work context, including aspects such as leadership, culture, and evaluation or feedback, is assumed to have an impact on the implementation of EBP in health care (Damschroder et al., 2009), and it will

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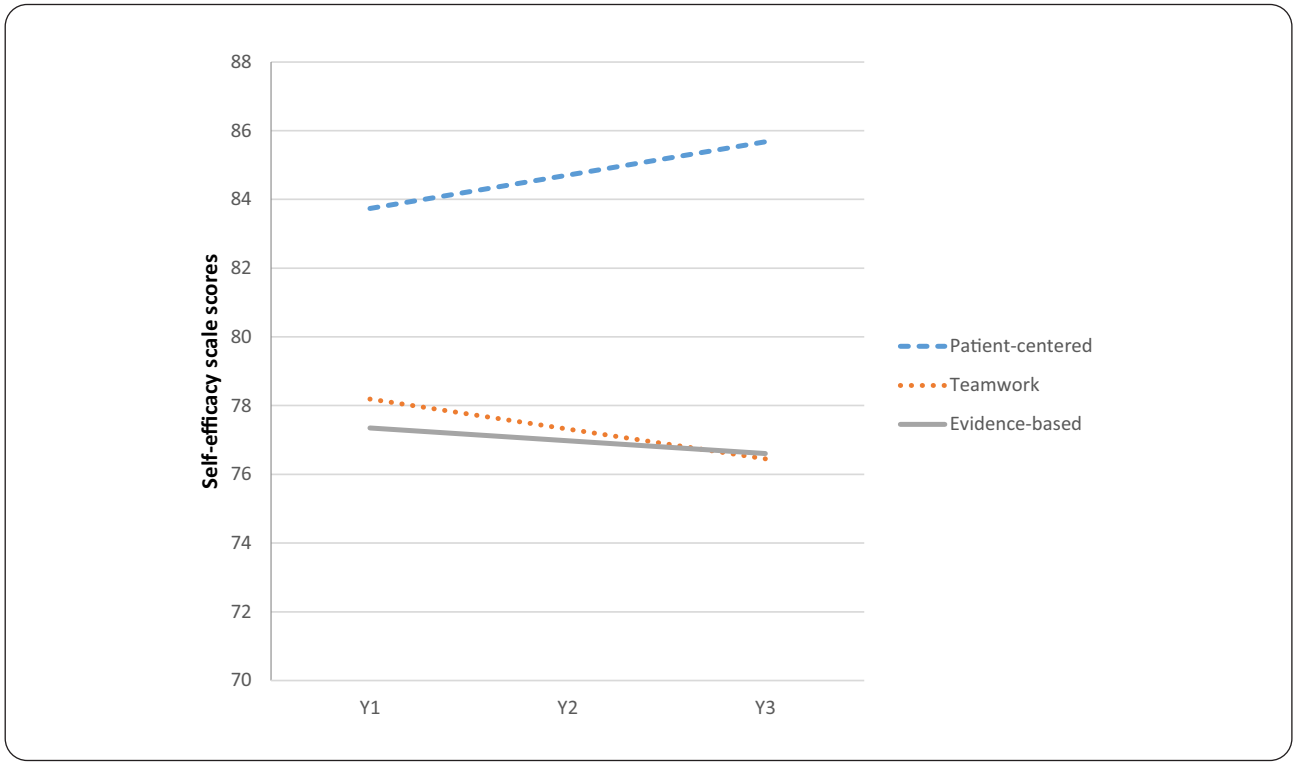

Figure 2. Model-estimated longitudinal trends for the three capability beliefs, $n = 1{,}205$.

also likely be of significant importance for patient-centered care and teamwork.

Bandura's Social Cognitive Theory (1997) has been used in several studies measuring and predicting nurses' competence and their performance of specific clinical behaviors linked to learning activities (e.g., Barta & Stacey 2005; Chang, & Levin, 2014). However, to our knowledge, this study is unique in its focus on the trajectories of nurses' capability beliefs for the core competencies during their first years of professional practice.

According to Bandura (1997), mastery is gradually developed with accumulated experience. Thus, it is expected that nurses in their early working life will develop increased capability beliefs in their professional role. This is consistent with the findings of nurses' development from novices to experienced experts (Benner, 1984). Our findings show that the new nurses' capability belief for patient-centered care had an upward trajectory that corresponded to the expected development. However, the capability beliefs for teamwork and EBP did not show similar upward trends.

The levels of new nurses' capability beliefs are influenced by the knowledge and skills they acquired during their undergraduate education (Florin et al., 2012). Patient-centered care is a core concept in nursing practice (International Council of Nurses, 2012), and it is well integrated in Swedish nursing education and is underpinned by legislation on patient participation (Svensk författningssamling 2014:821). Nurses and nursing faculty perceive patient-centered care to be central to their professional roles (Cronenwett et al., 2007), and thus nursing-school faculty can be expected to be more prepared for teaching patient-centered care compared with the other core competencies. Preparation to work in interprofessional teams is highly dependent on the availability for interprofessional learning in clinical placements. Only a few nursing programs in Sweden have integrated courses with other healthcare education, and this limits the opportunities for such learning to take place. EBP as a concept is present in Swedish nursing education. However, teaching is heavily focused on scientific methods and to a lesser extent on preparing nursing students to work according to the principles of EBP, and this situation has also been reported in other countries (Melnyk, 2013). Thus, differences in preparation during undergraduate education might explain some of the varying trajectories for the core competencies during the nurses' early careers.

The core competencies are inherently different with regard to their nature. Patient-centered care can be mastered both at an individual and collective level, whereas EBP partly requires collective efforts and teamwork is a phenomenon that is dependent on and mastered at the collective level. Also, EBP and teamwork may be dependent on the overall culture within the healthcare organization. New nurses accumulate experience from direct patient care in their everyday practice and will to some extent independently develop their skills and capabilities for patient-centered care (Benner, 1984). Therefore, it is likely that new nurses are supported to develop their mastery through feedback from their peers and from patients and their families. However, we assume that feedback on teamwork and EBP to

support nurses' capabilities is not as well developed in health care organizations.

Systematic reviews show that interprofessional teamwork increases functional capacity and decreases mortality in hospitalized older people (Ekdahl et al., 2015). Therefore, it is of great concern that nurses' capability beliefs for teamwork showed a downward trend during their first years of professional practice. It might be that new nurses, who predominantly work in busy hospital settings, are not exposed to interprofessional teamwork to a large extent. Patient care is still often conducted in a medically oriented and hierarchical system where different professionals' contributions are not always acknowledged. Thus, what is labeled as teamwork might not entail real interprofessional work practice with deliberate collaborative interactions, but rather it might consist primarily of fragmented and uncoordinated actions by clinicians working in parallel tracks. In addition, teamwork might be hampered by a lack of continuity due to temporary staff and working schedules based on individual preferences. Also, the exposure and learning from participating in EBP activities has been demonstrated to be low among nurses. A previous longitudinal study of Swedish nurses showed a low initial level of participating in EBP activities and no change during the first 5 years of professional practice (Rudman, Gustavsson, Ehrenberg, Boström, & Wallin, 2012). New nurses have reported a perceived lack of time and resources as major barriers for developing EBP (Gerrish et al., 2008). Healthcare managers have a responsibility to provide working conditions that are conducive to developing a culture of critical thinking and improvement based on best available knowledge.

Role modeling—where more junior nurses learn and develop their skills by working together with more experienced peers—is another principle for the development of capability beliefs that are importance for new nurses' careers (Benner, 1984). Increasing staff turnover and a decrease in nurses with advanced education in Swedish health care during recent years has likely reduced such learning opportunities. Nurses might not have the opportunity to be exposed to or involved in interprofessional teamwork and EBP. In a Canadian study, leaders who act as role models and who value research were shown to be important in facilitating nurses' research use (Gifford, Davies, Edwards, Griffin, & Lybanon, 2007). The lack of academic qualification among nursing leaders at the ward level in Swedish healthcare settings might considerably impede this leadership role (Gunningberg, Brudin, & Idvall, 2010; Johansson, Fogelberg-Dahm, & Wadensten, 2010).

Social persuasion involves encouragement by leaders and peers in adopting certain behaviors and skills (Bandura, 1997). Nurses who report having strong motivational leaders tend to report higher capability beliefs for professional practice (Manojlovich,2005). Nurse managers have an important role in creating an organizational culture for nurses' work according to EBP at all levels of the healthcare organization (Gifford et al., 2007, 2013; Sandström, Borglin, Nilsson, & Willman, 2011). Our research team has previously reported that supportive leadership and high collective efficacy are associated with searching for knowledge and implementing and evaluating EBP (Boström, Rudman, Ehrenberg, Gustavsson, & Wallin, 2013). However, the healthcare culture is not known to be supportive of nurses' EBP (Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012). In addition, in Swedish hospital settings, nursing leadership is relatively weak and at a low academic level and also is heavily focused on staffing and administrative duties (Gunningberg et al., 2010; Johansson et al., 2010). In a Swedish study, only one third of the newly graduated nurses reported that their nurse manager was supportive (Boström et al., 2013).

Being exposed to controllable amounts of stress is important for the development of capability beliefs (Bandura, 1997). A previous study has shown that almost every fifth new nurse in Sweden has reported high levels of burnout at some point during the first 3 years of professional practice (Rudman & Gustavsson, 2011). Longitudinal analyses show that 27% of newly graduated nurses report high burnout and intention to leave the profession after 1 year, and this proportion is 45% after 3 years and 43% after 5 years of employment (Rudman, Gustavsson, & Hultell, 2014). These findings highlight serious problems in the healthcare context that might severely hamper the development of the core competencies.

It should also be considered how the three competencies and the trajectories might interact and affect each other. The development of patient-centered care is to some extent dependent on teamwork, and EBP to a considerable extent requires teamwork, because the ability to contribute to changing practice by implementing current knowledge and participating in evaluating whether clinical practice reflects current knowledge are collective undertakings.

Limitations

One issue with longitudinal designs is the problem of attrition because the loss of respondents over the years might influence the results. However, in this study attrition analyses were performed to ensure that levels of capability beliefs at an earlier time point in the study did not influence nonresponse rates later (i.e., such analyses indicated that estimates of change were not systematically affected by participation or not).

Because the data were self-reported, the results might be subject to the influence of social desirability. Thus, if capability belief is thought of as a desirable competence and as something registered nurses think that they are supposed to feel as they gain work experience, the consequence would be for some respondents to boost their ratings. However, it is not clear how the influence of social desirability might result in lower ratings of teamwork or stable ratings of EBP over time.

In this study, time as years after graduation has been used as a proxy variable for indicating the amount of work experience as a registered nurse. For example, the results have been interpreted as reflecting that capability beliefs for patient-centered care increase with accumulated work experience (i.e., more years after graduation). However, all participants might not have worked full time (due to parental

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leave, specialty training, or by own choice) and therefore there might be some differences regarding the exposure to clinical work in the group. Thus, because time shows associations with increased capability beliefs in patient-centered care and decreases in capability beliefs for teamwork, the magnitude of these associations might have been underestimated.

CONCLUSIONS

It is distressing that the nurses' capability beliefs for EBP did not develop and that teamwork showed a downward trend during the first 3 years of working life. However, capability beliefs are modifiable, which implies that there is potential to improve the situation.

Clinical Implications and Future Research

Through collaboration between nursing education and clinical practice, the transition to work life for nurses could be better supported. Nurses need to be educationally prepared with critical thinking skills and training to formulate questions, critically appraise research, implement evidence and evaluate practice in order to be able to contribute to EBP. Also, undergraduate education needs to incorporate interprofessional learning during clinical placements. Nurse managers have a pivotal role in fostering a culture of critical thinking, knowledge acquisition and peer evaluation. To take on this role, nurse managers need adequate qualifications and working conditions that enable them to support new nurses to develop interprofessional teamwork and EBP.

Our study looked at longitudinal trends, but it did not investigate the determinants of longitudinal development. Thus, the results in the present paper indicate that the determinants of capability belief development might be a fruitful area for further research. In such an endeavor, variables reflecting quality of education, together with the effectiveness of socialization strategies and the influence of the work environment, could be modeled as variables influencing such development. Such outcomes could be used for designing studies evaluating interventions aiming to support nurses' capabilities to work according to the core competencies patient-centered care, teamwork, and EBP. **WVN**

LINKING EVIDENCE TO ACTION

- Nurses need to be prepared with critical thinking skills and training in EBP both during campus and clinical parts of education.
- Nursing education needs to incorporate interprofessional learning during clinical placements.
- Nurse managers should support a culture of critical thinking, knowledge acquisition, and peer evaluation.
- Nurse managers need adequate qualifications and working conditions that enable them to support nurses to develop capability for the core competencies.
- Future research should focus on determining which factors impact the development of capability beliefs in new nurses.
- Future research should evaluate how these factors can be developed by testing interventions.

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