Patient Education and Counseling xxx (2009) xxx–xxx

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Short communication

Coach training can improve the self-efficacy of neonatal nurses. A pilot study

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ARTICLE INFO

Article history:
Received 7 April 2009
Received in revised form 18 August 2009
Accepted 20 August 2009

Keywords:
Coaching
Self-efficacy
Communication skills training
Neonatal nurses

ABSTRACT

Objective: In this pilot study we have investigated the impact of coach training offered to neonatal nurses on their assessment of their ability to meet the needs of the mothers and fathers.
Methods: The effect of a 3-day coaching training offered to neonatal nurses was investigated in an intervention study evaluating the nurses' self-efficacy before and after the course.
Results: A total of 39/44 (89%) and 31/40 (78%) neonatal nurses answered the questionnaire before and after the course. The self-efficacy scores increased up to 14.8% and for all but 1 question, the increase was statistically significant.
Conclusion: Coaching can improve nurses' self-efficacy in relation to meet the needs of the mothers and fathers.
Practice implications: Coaching could be a method that can maximize the personal and professional potential of the staff, and prepare them for the mindful being-in-relation approach that increasingly is being requested. This should be confirmed in a bigger study.

1. Introduction

There is a strong consensus that communication with the patient must be based on a patient-centered approach [1–5]. Skillful communication has been shown to influence important health outcomes, such as a reduction in symptoms, reduction of anxiety, and psychologic distress [6–9]. However, recent research points out the shortcoming of methods that are only skill-based [10,11]. The clinicians must be able to anticipate patients' reactions, recognize and respond to patients' clues, reflect to the thoughts, feelings, and behaviours of the patients, assess their performance, and understand the perspective of others [11,12]. This approach has also been described as "a mindful being-in-relation" approach and Zoppi and Epstein emphasize that teaching can, and should focus on both changing behaviours and on the personal development of mindfulness in the learner [13].

This mindfulness and being-in-relation competence might develop through coaching. Coaching is partnering with clients in a creative process that inspires the clients to maximize their personal and professional potential [14], it takes focus on the present and is goal-oriented by encouraging clients to acknowledge their creativity and to find their own unique solutions [15–17]. At the same time it is a method that strengthens the ability of the coach to listen actively, to ask the "right" questions, and to manage to share perceptions [18,19].

In recent years coaching, as a supplement to professional development, has received increasing attention, especially in nursing [15]. One study described the process of coaching for nursing leaders [19], and another study focused on how peer-coaching (nursing students coaching undergraduate students) in a controlled trial could improve the training motivation and self-efficacy of the coaches [18]. The concept self-efficacy refers to a person estimate of his or her ability to perform a specific task successfully [20].

At a neonatal care unit nurses are challenged not only to provide the best possible care for the baby, but also to help the mother through an uncertain motherhood [21].

Parents admitted to a neonatal ward are overwhelmed, not only by the hospital language and the culture of the health care providers, but also by the busy environment and technology. Therefore, the staff needs to help the parents perceive some kind of meaning of what is going on [22,23].

In this pilot study we have investigated the impact of coach training offered to neonatal nurses on their assessment of their own care to mothers and fathers measured as self-efficacy.

2. Method

The study took place at the neonatal care unit at the Department of Paediatrics at Kolding Hospital, a regional hospital

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doi:10.1016/j.pec.2009.08.015

in Denmark. The department provides service for preterm and sick newborn babies.

The study was investigating the effect of 3-day coaching training including all 44 nurses employed in the neonatal care unit. In a pre–post design, the effect of the intervention was evaluated by means of questionnaires.

2.1. Intervention

The coaching course was developed in cooperation with and conducted by two professional coaches. The purpose of the course was to strengthen the nurses' ability to listen empathetically, to express their understanding and support, and to explore the experiences, the feelings, and the expectations of the parents.

The course consisted of short lectures, dialogue, and reflection. Furthermore, role-plays, in which the nurses coached each other, had a central role.

2.2. Questionnaires

Based on a survey developed by Parle et al. [24] a structured questionnaire measuring nurses' self-efficacy was designed. In this study the specific tasks of the neonatal nurses in their relation to the parents were defined on the basis of a meta-synthesis of mothers' experiences of having a preterm baby [21], supplemented by interviews with 10 parents focusing on what was important for them as parents and how they felt the nurses could support them. The mother and the father shared most of the issues; however two questions were identified as specific for the mothers. The strength of self-efficacy was rated using numerical scales from 1 to 10.

The questionnaire also included questions about sociodemographic characteristics and questions about the work environment. The nurses were asked to answer the questionnaire before and 1 month after the intervention.

2.3. Statistical analysis

Double data entry was carried out using EpiData 3.0. Statistical analyses were performed by STATA 10. Data were analysed with independent or paired *t*-tests.

3. Results

3.1. Population

The questionnaire was answered by 39/44 nurses (89%) before the course and by 32/40 nurses (80%) after the course. Of these it was possible to match 20/39 (51%) of the questionnaires answered before and after the course by the same person. The number of nurses included and excluded in the study and the analysis are depicted in Fig. 1.

3.2. Nurses' self-efficacy

The mean scores of self-efficacy for each questions measured before and a month after the course is illustrated in Fig. 2a and b. For all 10 questions addressing the needs of the mother, the nurses' self-efficacy was higher after having participated in the coaching course (Fig. 2a). The scores improved 3.6–14.3%, and for all but 1 question, the increase was statistically significant (paired *t*-test). Analysed by unpaired *t*-tests, the increase was statistically significant for 6 of 10 questions.

Also, for all questions regarding the ability to address the needs of the father, the scores were significantly higher (paired *t*-test) after the coaching course (Fig. 2b), increasing by 9.0–21.6%. When analysed by an unpaired *t*-test, the difference was statistically significant in 2 of the 8 questions, and for the remaining 6 questions, the *p*-value was <0.1.

The mean of the mean score for all questions addressing the mother and the father, respectively, was calculated and the difference between the scores was analysed (Table 1). The greatest

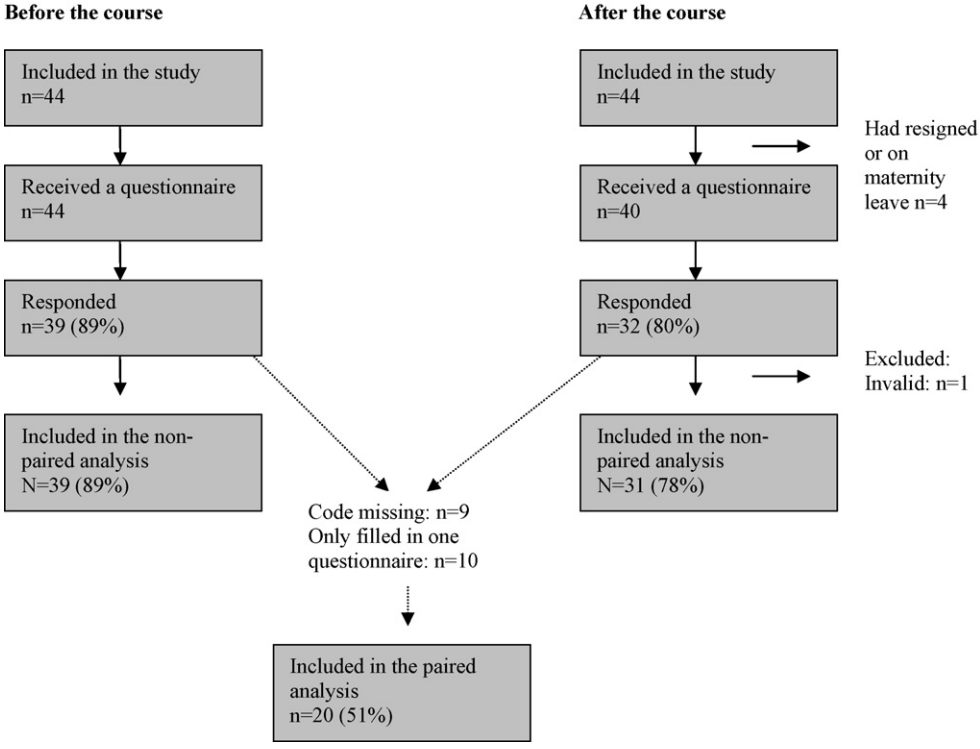

Fig. 1. Flow-diagram of neonatal nurses included in the study.

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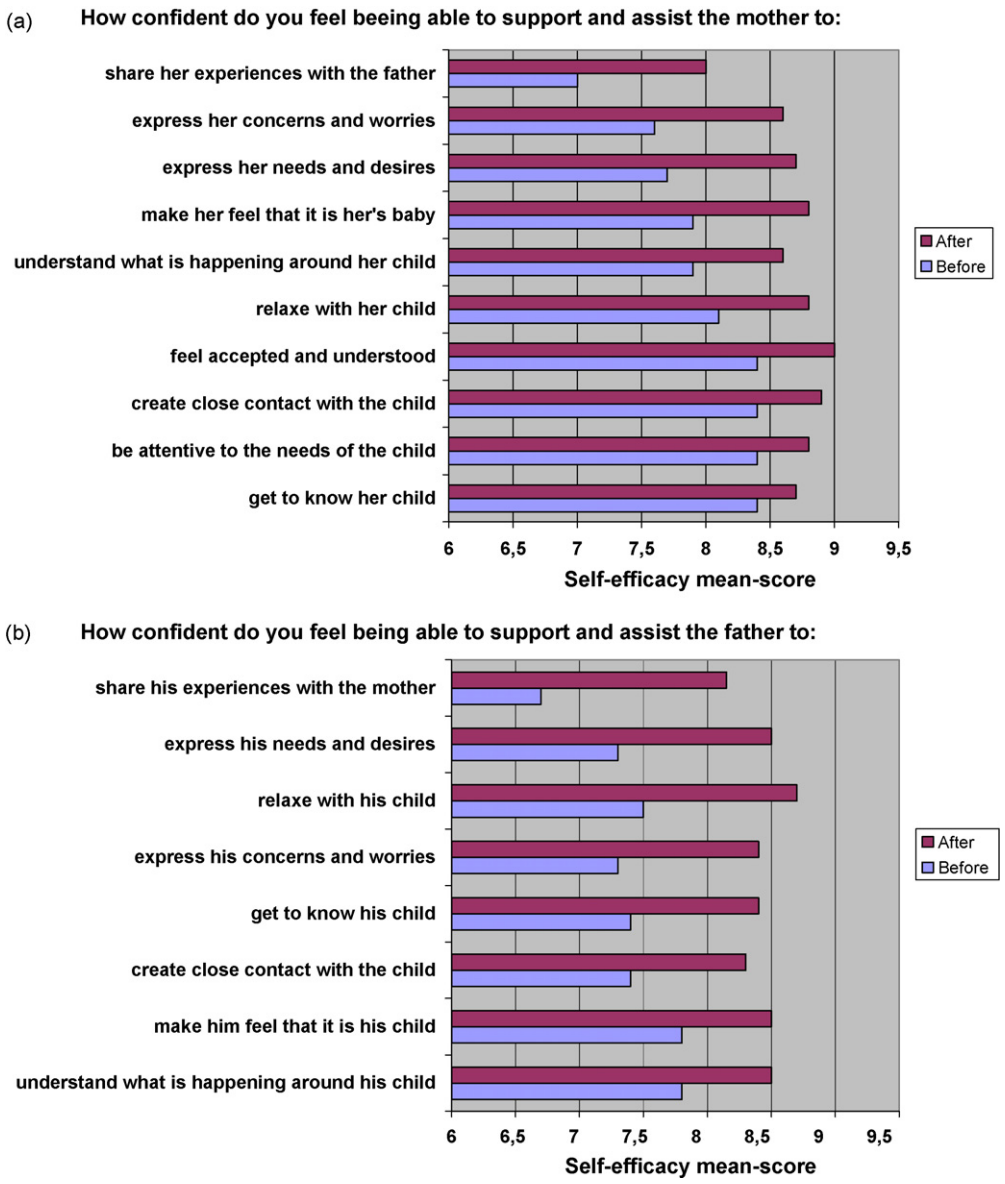

Fig. 2. (a) Mean scores of nurses' self-efficacy measured before and after the coaching course. The questions focused on the needs of mothers and are ranked according to the magnitude of increase in mean score with the highest increase at the top. $N = 20$. (b) Mean scores of nurses self-efficacy measured before and after the coaching course. The questions focused on the needs of fathers and are ranked according to the magnitude of the increase in mean score with the highest increase at the top. $N = 20$.

Table 1
Mean scores for self-efficacy questions related to mothers and to fathers, respectively. Measured before and after the course. $N = 20$.

Questions related to:	Mean self-efficacy		Paired *t*-test		
	Before	After	Diff	95% CI	*p*
Mothers	7.85	8.63	0.78	0.45–1.31	<0.01
Fathers	7.33	8.40	1.08	0.67–1.48	<0.01

improvement occurred for the self-efficacy scores related to the father (Diff, 0.30; CI, 0.09–0.51).

4. Discussion and conclusion

4.1. Discussion

This pilot study indicates that by participating in a coaching course, it is possible to improve nurses' assessments of their ability to meet the needs of parents, especially the needs of the fathers.

The importance of strengthening the nurses' self-efficacy in communication is underpinned by the literature showing that self-reflection, non-judgement, and empathy appear to be necessary components for exemplary communication with patients [25] and a study showing that less capable and distressed nurses made the parents feel uncomfortable and insecure [23].

Studies have shown that fathers' infant care self-efficacy is significantly lower than that of the mothers [26]. The fact that this study showed that at baseline the self-efficacy for the nurses was lowest in relation to the needs of the fathers stresses the importance of investigating interventions that might increase the quality of care, especially for the fathers.

The validity and the relevance of using self-ratings on self-efficacy as an outcome are strengthened by studies that confirm an association between self-efficacy and performance [27–29], that shows that physicians' improvements measured by self-rating can be verified by observers rating their communication [30], and a study testing the reliability of self-efficacy scores [31].

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4.1.1. Limitations

The main limitation of the study is that only 51% of the potential responses could be matched. However; all analyses have also been carried out as unpaired *t*-tests, thereby including a larger percentage of the population (80–89%). These analyses support the results by being consistent with the findings found in the paired *t*-tests.

The reasons for the low sample size in the matched analysis were that some of the nurses only filled in one questionnaire due to e.g. resignation, sickness absence and maternity leave and that the codes on some of the questionnaires were missing.

Comparing the questionnaires possible to match and the ones not possible to match showed no differences in age or in the responders' assessment of their self-efficacy and in the work environment. However, the responders tended to be more experienced in the group possible to match. This could have influenced the result, assuming that the impact of the course was associated with length of service.

4.2. Conclusion

This pilot study shows that training in coaching techniques can improve neonatal nurses' assessment of their ability to meet the needs of mothers and fathers. The greatest improvements were found for the ability to meet fathers' needs with an increase in the self-efficacy score of up to 22%.

4.3. Practice implications

Coaching seems to be a method that can maximize the personal and professional potential of the staff, and prepare them for the mindful being-in-relation approach that increasingly is being requested.

Acknowledgements

The authors want to thank the nurses of the neonatal care unit in the Department of Paediatric for their assistance with the study. Also, warm thanks are extended to the Heads of the Department, Edel Kirketerp and Carl Crytter, for their support to the project.

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