

BACKGROUND

In order to facilitate patient participation in medical decision making in oncology, we developed a complex intervention for shared decision making (SDM) comprising (see Tab. 1):

- Training for specialised nurses as decision coaches (A)
- Workshop for physicians (B)
- Evidence-based patient decision aid (DA) for women with ductal carcinoma in situ (DCIS) (C)
- At least one decision coaching session for women with DCIS (D)

A pilot study (phase II) was conducted to explore feasibility and acceptance of the intervention. The study was conducted according to the UK Medical Research Council's framework for design and evaluation of complex interventions [1].

METHODS

Setting: Two certified (Onkozert) breast care centers in Berlin, Germany

Focus:

To explore comprehensibility, appropriateness, acceptability and time management of educational interventions and decision coaching

Data collection:

Educational intervention: Observation (expert) and individual feedback of participants (n=4 nurses, n=5 physicians) by questionnaire

Decision coaching: Seven decision coaching sessions lead by nurses were videotaped and individual feedback of participants (nurses, physicians and patients) by questionnaire

Data analysis:

Educational intervention: Observation protocols and questionnaires were analyzed descriptively

Decision coaching: The observer-based instrument of the MAPPIN'SDM-inventory [2] was applied to measure the extent of patient participation (possible range: 0-4, *competence was not observed to excellent performance*). The inventory comprises a set of nine indicators, six indicators outline the chronological order of an SDM-talk. Three indicators contain meta-communicative components. Two observer rated the SDM-behavior of the nurse, the patient and the interaction of the dyad (nurse and patient). Questionnaires were analyzed descriptively.

Table 1: SPUPEO-intervention





SPUPEO-Intervention			
Component	Target Group	Objectives	Content
A Training for nurses (decision coaches) two modules, 3 days		<ul style="list-style-type: none"> ✓ Nurses conduct decision coaching according to the six steps of SDM based on the information given in the DA. 	<ul style="list-style-type: none"> ▪ Evidence-based medicine/ nursing ▪ Criteria of evidence-based patient information (EBPI), risk communication ▪ DA ▪ SDM in theory and practice
B Workshop for physicians 2h		<ul style="list-style-type: none"> ✓ Physicians are sensitized for patient's decisional conflicts as well as participation preferences and modify their role during the inter-professional SDM-process. 	<ul style="list-style-type: none"> ▪ Basics of SDM ▪ DA for women with DCIS
C Evidence-based DA for women with DCIS, 64 pages		<ul style="list-style-type: none"> Patients... <ul style="list-style-type: none"> ✓ are encouraged to participate in treatment decision making. ✓ receive EBPI for the treatment decision on DCIS. 	<ul style="list-style-type: none"> ▪ Introduction to SDM ▪ Information about the disease ▪ Treatment options including benefits and harms (EBPI) ▪ Decision guidance
D Decision coaching including...		<ul style="list-style-type: none"> ✓ Decision coach supports patients in treatment decision making. ✓ Patients are encouraged to participate in treatment decision making. 	<ul style="list-style-type: none"> ▪ Information about the disease ▪ Treatment options including benefits and harms (EBPI) ▪ Decision guidance
... Prompt cards		<ul style="list-style-type: none"> ✓ Decision coaching is structured according to the six steps of SDM. 	Conversation guide with wording examples
... Decision guidance		<ul style="list-style-type: none"> ✓ Patients document their decision process. 	Documentation option according to the six steps of SDM

Table 2: MAPPIN' observer-based (MAPPIN' O) results of the nurse-led decision coaching

Indicator	1	2	3		4	5	6	7	8	9	Mean score of all indicators	
	Defining problem	SDM key message	3a) structure	3b) content	3c) EBPI	Expectations and worries	Indicate decision	Follow up arrangements	Preferred communication approach	Evaluation of understanding patient nurse		
Nurse Mean (Range)	1.86 (1-3)	1.00 (1-1)	1.14 (0-3)	2.71 (1-4)	3.00 (3-3)	2.29 (0-3)	1.33 (0-2)	1.83 (0-4)	1.29 (0-2)	2.14 (1-3)	2.14 (1-3)	1.90 (1.27-2.64)
Patient Mean (Range)	0.71 (0-1)	0.14 (0-1)	0.00 (0-0)	2.29 (1-4)	1.43 (0-2)	3.00 (3-3)	1.83 (0-3)	1.33 (0-4)	1.14 (0-2)	2.86 (2-4)	2.00 (1-3)	1.65 (1.22-2.42)
Dyad Mean (Range)	2.00 (1-3)	1.00 (1-1)	1.14 (0-3)	2.86 (2-4)	3.00 (3-3)	3.00 (3-3)	1.83 (0-3)	1.83 (0-4)	1.43 (0-2)	3.00 (2-4)	2.43 (2-3)	2.15 (1.73-2.73)

FINDINGS

Study duration: 11/2014 to 05/2015.

Educational intervention:

- Intervention was well accepted
- Training and workshop were feasible
- Nurses requested additional material for decision coaching
- Nurses and most of the physicians endorsed the implementation of inter-professional SDM

Decision coaching:

- Decision coaching by nurses is feasible
- Mean duration of decision coaching sessions was 36 minutes (23 – 82 min.)
- On average a basic level of SDM was observed (MAPPIN-O_{dyad}: 2.15), (see Tab. 2)
- Physicians were concerned that some women might be overburdened with information and did not include all eligible women (see Fig. 1)
- Physicians raised concerns about the possibility that women's decision preferences do not match the tumor board recommendation
- Open decision making was often hindered, since the screening centers recommend treatments prior to the initial visit in the breast care center
- Participants reported time and personal expenditure as relevant barriers that hamper a permanent implementation.

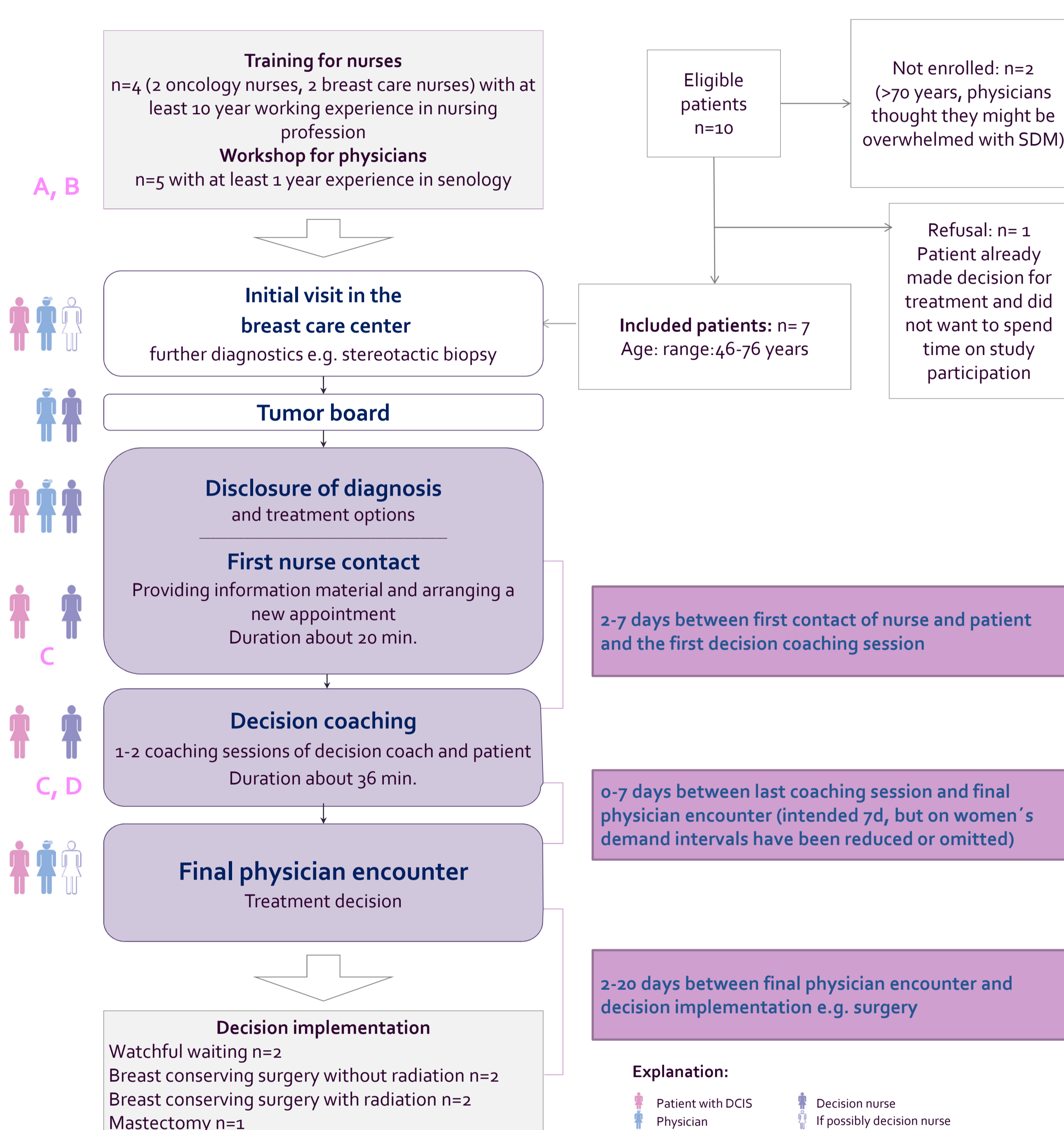


Figure 1: Flow chart of the pilot study

DISCUSSION / CONCLUSION

In summary, our intervention is feasible. Physicians and nurses endorsed shared decision making and judged the inter-professional collaboration to be excellent. However, context factors like the tumor board recommendations and professional beliefs may hamper the implementation. We revised the intervention according to the results. E.g. we developed fact sheets that display essentials about treatment options to enable nurses to structure the information during decision coaching. Furthermore, the physician workshop was restructured giving more time to discuss physicians' concerns about treatment options.

Our study has several limitations. Due to pilot study design a small number of patients was included. Patient's responder rate of the post consultation questionnaire was low and prevented analysis. In addition, physicians and nurses were highly motivated to participate, which might cause a selection bias.

The efficacy of the revised intervention is currently evaluated in a cluster-RCT in 16 breast care centers with 192 patients [3].

References

- [1] Craig P et al. 2013. Developing and evaluating complex interventions: The new Medical Research Council guidance. *Int J Nurs Stud*, 50(5):587-92.
- [2] Kasper J et al. 2012. MAPPIN'SDM - the multifocal approach to sharing in shared decision making. *PLoS One* 7:e34849.
- [3] Berger-Höger B et al. 2015. Informed shared decision-making supported by decision coaches for women with ductal carcinoma in situ: study protocol for a cluster randomized controlled trial. *Trials* 16:452.