

## FULL-LENGTH ARTICLES

# Involving Nurses in Participatory Action Research: Facilitators and Barriers

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Keywords: nurse participation, quality improvement, learning climate, geriatric rehabilitation

<https://doi.org/10.35844/001c.123005>

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## Journal of Participatory Research Methods

Vol. 5, Issue 3, 2024

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Involving nurses in research and quality improvement is desirable because nurses are often aware of weaknesses in care or organizational processes. In participatory action research (PAR), practitioners are encouraged to identify problems they encounter and, together with the researcher, develop strategies to solve these problems. This study aimed to evaluate the process of involving nurses in PAR, as well as learn what hampers and facilitates collaboration between the nursing team and the researcher and facilitator. Data collected during a 2.5-year PAR process with a nursing team (15–18 participants) on a geriatric rehabilitation ward was deductively analyzed using seven quality criteria (collaboration, prudent handling of assumptions, accountability, participation, reflection, knowledge sources, and transparency). This study describes how reflection and collective learning as core processes of PAR were facilitated using complementary knowledge sources (theoretical models, knowledge based on practical experiences, and results of empirical research collected during the PAR). The study uncovered that providing the time and setting for reflection and collective learning enables a nursing team to be actively involved in PAR: it helps them diagnose their current practice, plan ahead, and critically experiment with actions. Additionally, a positive learning climate is a prerequisite for this process. However, without a strong link between quality policy and consequent facilitation of participation through earmarked time, these efforts might not lead to sustainable changes. A more permanent link between PAR initiatives and organizational ambitions regarding quality of care is recommended.

### Introduction

Changes in healthcare practice are often dictated top-down to nursing staff, on the assumption that those at the top of the organization know what is best (Cusack et al., 2018). However, involving nurses in research and quality improvement is desirable because nurses are often aware of weaknesses in care or organizational processes (Abrahamson et al., 2018). In participatory action research (PAR), practitioners are encouraged to identify problems they encounter in their daily practice and, together with the researcher, develop strategies to overcome these problems (Hockley et al., 2013; Kemnis et al.,

2013; Van Lieshout et al., 2021). Several ideas support involving people (e.g., patients, citizens, employees) in research. First, people have the right to have a say in what happens within their context; second, involving participants offers a more diverse set of perspectives which consequently might lead to more practical and relevant results; third, recognizing and sharing experiences and expertise enhances collective action, and participation from the outset can prevent the feeling that decisions are being forced upon (Corbett et al., 2007; Van Lieshout et al., 2021). In healthcare, involving nurses in quality improvement decreases rigid role boundaries, which may improve staff satisfaction and retention (Abrahamson et al., 2018). Finally, gaining knowledge about their own situations and practices empowers participants (Corbett et al., 2007; Migchelbrink, 2018; Van Lieshout et al., 2021). According to Migchelbrink (2018), empowerment involves shifting the balance from letting things be determined to self-determination.

## Background

PAR is a subcategory of action research; many researchers consider Kurt Lewin to be the founder (Cornish et al., 2023; Green & Thorogood, 2018; Hockley et al., 2013). Action research is distinctive in its aim to change practice. Action research becomes participatory when it strives to bring about change in a democratic way and thus establishes a more equal relation between the researcher and those involved in the situation. To achieve engagement with and between participants of PAR, the so-called communicative space described by Habermas in his theory of communicative action is a core principle (Bevan, 2013; Dedding et al., 2022; International Collaboration for Participatory Health Research, 2013). Habermas valued lay knowledge and saw people as competent to act on that knowledge (Bevan, 2013). The communicative spaces aim for people to cooperatively interpret and understand their experiences. Communicative spaces “provide an arena in which peoples’ voices can be heard” (Bevan, 2013, p. 15). Different researchers present the PAR process in various phase models, (Boog et al., 2005; Kemnis et al., 2013; Migchelbrink, 2018; Van Lieshout et al., 2021), but all models work spirally towards a changed or improved situation. Although sketched as a neat spiral, the design of an action research project has a more open and unpredictable character compared to more traditional research designs (International Collaboration for Participatory Health Research, 2013; Migchelbrink, 2018; Van Lieshout et al., 2021). The curly willow with side branches might be a more appropriate way of capturing the PAR process (Van Lieshout et al., 2021). For example, findings in the orientation phase can lead to reconsideration of the research question (Van Lieshout et al., 2021). Additionally, changing the current practice, schematically planned for the action phase, can begin in the diagnostic phase because participants become aware of problems (Migchelbrink, 2018). Available time and resources can also influence the scope and pace of the action cycle; to enhance commitment and motivation, smaller actions with rapid results can be chosen. Therefore, PAR design must be “responsive and

adaptive to adjust to the complex and permanently changing context” (Van Lieshout et al., 2021, p. 27). The quality of PAR depends on the quality of the participation. This is reflected in Migchelbrink’s (2018) criteria:

- Collaboration: How do the participants and the facilitator cooperate? How are problems solved?
- Prudent handling of assumptions: Have assumptions been checked? How are conflicting viewpoints handled?
- Accountability: Can the researchers substantiate and justify what they want?
- Participation: How is participation facilitated? In what way are participants involved?
- Reflection: Are participants involved in a constant process of interactive reflection?
- Knowledge sources: Have complementary sources of knowledge been used?
- Transparency: Are steps and goals clear for all participants?

This article is about PAR with a nursing team on a geriatric rehabilitation ward of a Dutch nursing home, focused on patient-centered goal setting and achievement. Working and learning as a team in this PAR was intended to improve care and empower the nursing team. This study aims to evaluate the process of involving nurses in PAR and the facilitators and barriers that we observed. Our findings about patient-centered goal setting and achievement will be reported elsewhere.

## Methods

### Setting and participants

This participatory action research took place in a Dutch nursing home, on a geriatric rehabilitation unit. In this unit, twenty patients rehabilitate after having experienced a neurological or oncological event. With the support of the multidisciplinary team, they work towards being discharged home. The average length of stay is forty days. In their natural environment, during workdays, the nursing team performed a PAR, following the phases described by Migchelbrink (2018), i.e., orientation, diagnosis, development, action, evaluation. The start of the study coincided with the establishment of a Learning and Innovation Network (LIN) on the ward. A LIN is

a group of care professionals, students, and an education representative [...]. They constantly reflect and learn from and with each other through a combination of individual and team learning activities. Participants work together on practice-based

projects in which they combine best practices, research evidence, and patient perspectives [...] to innovate and improve the quality of care [...] (Albers et al., 2021, p. 5)

The PAR took 2.5 years (February 2020–June 2022), during which bachelor students were added to the team in five consecutive periods, with each group completing an internship period of twenty weeks. During that time, two participatory action cycles were carried out (see [Table 1](#)).

Both the PAR and the LIN were initiated by the nursing professor (RG) and the manager of the geriatric rehabilitation section of the nursing home organization, assigning the subject of improving patient-centered goal setting and achievement to the team. The underlying goal was to increase patient involvement in the rehabilitation process, and make the process more patient-centered while boosting patient motivation. The nursing team responsible for rehabilitation care included, on average, thirteen employees and three bachelor students (see [Table 2](#)). Of the employed staff, an average of six were registered nurses, including the team lead, an average of five were certified nursing assistants, and an average of two were apprenticeship-track students seeking to become certified nurse assistants.

The nursing team worked closely with (para)medical professionals, such as physiotherapists, occupational therapists, social workers, dietitians, and physicians. A lecturer practitioner, a former registered nurse (Vaalburg), was assigned to the LIN to facilitate the PAR process. The PAR's core work group consisted of the team lead and two registered nurses. Although rehabilitation pre-eminently takes place in a multidisciplinary team, for two reasons the choice was made to primarily focus on the nursing team. First, the role of nursing staff in geriatric rehabilitation in the Netherlands is developing (Vaalburg et al., 2023). To be able to play an equal role in improving practice in a multidisciplinary setting, they first need time and space with each other on a monodisciplinary level to develop their views and define their role. The (para)medical professionals had no formal role but were involved in several PAR activities, e.g., joining team sessions and giving feedback on the progress of PAR steps. A second, more practical reason to not involve the (para)medical professionals on a more structural base was the limited number of people allowed to gather during the COVID-19 pandemic. An external project group, consisting of academic experts, geriatric rehabilitation managers, and a patient representative, was installed to monitor the PAR's progress on a bi-monthly basis.

### **Data collection**

Several types of data were collected between February 2020 and June 2022. The facilitator collected fieldnotes in a logbook during the PAR process. These notes describe the collaboration with the work group, team members, and students, as well as the project's progression. Additionally, several conversations with the team or team members (i.e., two team sessions held to decide on important moments in the process; nine semi-structured interviews

Table 1. The two PAR cycles

Cycle and phase	Activities and outcome
<i>Cycle 1: Preparation of the multidisciplinary team meeting with the patient.</i>	
Orientation: February–June 2020	Reflection on: (how) do we as a nursing team support patient-centered goal setting and which aspect of our work needs improving?
Diagnosis: February–June 2020	Outcome of orientation: 1. The continuity of care we provide is sub-optimal, “we should all work on the same goals.” 2. Patients could be better informed about their rehabilitation path. Diagnosis: the team chose to work on better preparation of the multidisciplinary team meeting with the patient and at the same time updating the patient record to advance continuity of care.
Development: September 2020–January 2021	Development of a 7-step plan to prepare the multidisciplinary team meeting with the patient.
Action: February–June 2021	Testing the 7-step plan
Evaluation: February–June 2021	Evaluation of the 7-step plan and the preparation of the multidisciplinary team meeting with the patient. Outcomes: Preparing the multidisciplinary team meeting by providing care, reading older reports, and writing a summary has become a routine. The summary in the electronic patient record needs attention on a few points. To optimally assess the progress with the patient, the rehabilitation plan should be complete, this is not always the case. Involving the patient is not always thought possible because of cognition or language barriers. Starting point for Cycle 2.
<i>Cycle 2: Involving patients in their rehabilitation process through the use of whiteboards</i>	
Orientation September 2021–January 2022	Bachelor thesis of student answering the question: How can the multidisciplinary team on ward A1 ensure better patient involvement during the rehabilitation process? Outcome: Use whiteboard in patient room to set small goals and evaluate daily.
Orientation: February–June 2022	Inventory among all 20 patients on the ward whether they know their exercise goals. Working visit to other department to learn about their practice with whiteboards.
Diagnosis: February–June 2022	Outcome: a large amount of the patients can sum up their exercise goals. However, we want to start working with goals on whiteboards, also for the benefit of continuity between team members.
Development: February–June 2022	Development of a whiteboard structure.
Action: February–June 2022	Experimenting with writing goals on the whiteboard in patients’ room.
Evaluation: February--June 2022	Evaluating experiences with patients. Outcome: there is no one recipe for whiteboard goals. Patients have different needs.

Table 2. Nursing team members during the PAR

Date	Team lead (RN)	Apprenticeship track students in training to become CNA*	CNA*	RN**	Supernumerary bachelor nursing students	Total
Period 1: 1 Feb 20	1	2	6	4	3	16
Period 2: 1 Sept 20	1	4	4	3	3	15
Period 3: 1 Feb 21	1	2	5	5	4	17
Period 4: 1 Sept 21	1	2	5	6	4	18
Period 5: 1 Feb 22	1	0	6	6	3	16

RN=Registered Nurse

CNA=Certified Nursing Assistant

\* Compared to other countries, the Dutch certified nursing assistant education is rather lengthy, namely consisting of a three-year practice-oriented course (Van Wieringen et al., 2022).

\*\* Part of the team, but not mentioned in this table, is a group of on average six RNs that mainly work evening, night, and weekend shifts, bearing nursing responsibilities for the entire nursing home. This group was not actively involved in the PAR.

with work group members, nurses, certified nursing assistants, and students on the team about their experiences; and five evaluative interviews at the end of the two cycles using an image of the research journey) were audio recorded and transcribed. Email correspondence, public accounts written by the facilitator, and newsletters about the project addressed at team members, staff, and managers were also included in the collected data.

### **Data analysis**

Data was analyzed using theoretical thematic content analysis (Braun & Clarke, 2006). First, Vaalburg and Boersma (the researchers) familiarized themselves with the data. Second, the documents were imported into MaxQDA, a software application designed for organizing and analyzing qualitative data, thus ensuring transparency in the coding decisions and interpretations. We chose a deductive approach because of the evaluative character of the research (Green & Thorogood, 2018). Migchelbrink's (2018) seven criteria for PAR served as a code scheme to work towards a qualitative description (Green & Thorogood, 2018) of how the nursing team's participation was facilitated and what barriers occurred. Third, inductive coding was utilized (Green & Thorogood, 2018), searching for barriers and enablers within the coded extracts of the seven criteria. We did this "paper-based," using separate documents per criterion of Migchelbrink (2018). The researchers discussed barriers and enablers, and Vaalburg reread Migchelbrink and related literature on participation in PAR to refine the barriers and enablers. A coding tree was developed and discussed with the other authors (Wattel, Hertogh, and Gobbens) and two work group members.

### **Rigor**

The rigor of this PAR is demonstrated through our enhancement of dependability, credibility, and transferability (Stahl & King, 2020). We strove for dependability through professional peer debriefing and peer review. Part of the data was analyzed by the second author. The facilitator and first author, as a PhD student, was supervised by four tutors. With some on a monthly and some on a bi-monthly basis, she shared her entailment in the PAR, thus monitoring the influence of her values and passions through reflexive auditing. Credibility was achieved through member checking with work group members in each phase. Additionally, semi-structured interviews, the researcher's reflexive logbook, and materials like newsletters and flip charts used in the PAR contributed to method triangulation. We strove to make this research as transferable as possible by providing a rich description. For example, quotations from the data are presented to illustrate the findings. The quotations are coded based on participants' numbers and positions (professional or student). With Green and Thorogood (2018), we note that "the key elements that are generalizable from qualitative research may not be the narrow findings but the concepts, that is the way of thinking about or making sense of the world" (p. 309).

## Ethical considerations

The study was approved by the ethics committee of the university supervising this PhD study (2019.400). Informed consent was obtained before data gathering activities. Participation was voluntary, and the participants' work and personal boundaries were considered. Activities were planned with participants to avoid disrupting patient care.

## Findings

In this PAR, two cycles were performed (see [Table 1](#)). The following section provides a description of the participatory research methods, tools, and processes using Migchelbrink's (2018) guiding questions. Barriers and enablers that occurred during the PAR are described in [Table 3](#). In this PAR, two types of participants and co-researchers can be distinguished; at the same time, in practice, the tasks of the different groups were intertwined. First, a core work group was established consisting of the team lead and two senior team members of the nursing staff. Their share in the PAR and the relation with the facilitator is described under Collaboration. The second group consists of the team members (including the core work group members) and the nursing students. Their role in the PAR and how their contribution was facilitated is described under the criteria participation, knowledge sources, reflection, and transparency. Finally, we describe two more preconditional criteria under prudent handling of assumptions, and accountability.

## Collaboration

This section describes the collaboration between the work group members and the facilitator. According to Migchelbrink (2018), in PAR the researcher, in the role of facilitator, and the work group members relate to each other in a subject-subject manner, as opposed to research methods in which the researcher has a more neutral observing role towards people as "research objects." "The subject-subject relationship is characterized by equivalence; engaging in a dialogue; and (...) an appropriate division of tasks and responsibilities according to their knowledge, experience, and expertise" (Migchelbrink, 2018, pp. 97–98). The PAR's core work group and the facilitator held meetings five times per year on average. In these meetings plans were made, progress and barriers were discussed, and the project steps were evaluated. It was particularly helpful that there were plentiful opportunities to exchange ideas in informal settings, for example during coffee breaks or walking to the bus station. A considerable part of the discussions and decisions occurred in these more impromptu situations. The facilitator had a leading role, presenting ideas to fill in team sessions, summarizing session outcomes, and proposing suggestions for next steps in the process. The members of the work group gave their feedback on the facilitator's plans. This quote from the facilitator's logbook illustrates this division of roles:

Table 3. Barriers and Enablers that Occurred During the PAR

Migchelbrink's criterium	Barriers	Quotes to Barriers	Enablers*	Quotes to Enablers
<p>Collaboration: How do the participants and the facilitator cooperate? How are problems solved?</p>	<p>1. Communication: work group members not used to communicating by e-mail or other written means 2. External position of the facilitator and lacking culture of accountability: fulfillment of commitments partly depends on relationships and trust. 3. Difference in "pace" between facilitator and the work group and the nursing team (thinkers versus doers).</p>	<p>3. <i>It seemed to me that the team members did not have the patience to listen to what the physiotherapist was telling. They started talking about buying whiteboards, the costs and the (im)possibilities. While I was still brooding on the question: "Will this be of use for our ward?" What is useful, what is not? [...]. I also had wanted to ask the patient [that was present, AMV] a lot of questions.</i> Facilitator's logbook. Cycle 2, Phase: Orientation</p>	<p><b>1. Broadness of the subject allowing the work group and team to fill the PAR out according to their own needs and affinities.</b> <b>2. Plentiful possibilities for informal contact between facilitator and working group members.</b> <b>3. Facilitator using position of lecturer practitioner to get things done.</b> <b>4. Positive energy and practical nature of team members.</b></p>	<p>3. <i>As it comes to implementation and securing of improvements in the rehabilitation care, as a teacher from outside I have little ability to influence. What I can do to impact the process, is give the students more or less mandatory assignments.</i> Facilitator's logbook. Cycle 1, Phase: Action</p>
<p>Participation: How is participation facilitated? In what way are participants involved?</p>	<p>1. Working on quality improvement not being a formal duty of the nursing staff; no earmarked hours for quality improvement tasks. 2. Certain disruptions causing the PAR process to take more time because other matters required attention (refurbishing of the ward and a move, the COVID-19 pandemic etc.). 3. Ambitious personnel leaving the team to work on the COVID unit. 4. General characteristics of nursing work: prioritizing patient care over other tasks; shift</p>	<p>4. <i>Nurse6 [also work group member]: It was hard that I did not have a sparring partner on my side of the ward [...] I work with colleagues who work little hours. Sometimes I find that bothersome for the continuity [of the PAR, AMV].</i> Final evaluation work group June 2022</p>	<p><b>1. Student nurses added to the team. The group sessions with team members and student nurses were a central activity of this PAR learning and innovation network.</b> <b>2. The team lead taking practical measures (time, staffing) to enable team members to work on the PAR.</b> <b>3. The team atmosphere facilitating learning and stimulating experimentation.</b> <b>4. Facilitator's strategy to secure involvement of team members within the limited time: align the overarching theme and activities as much as possible to the needs,</b></p>	<p>1. <i>One of the students presented her ideas for her bachelor thesis, the group [four team members and two student nurses] chose self-management. This aligns closely with patient-centered goal setting, because stimulating self-management is an important action as it comes to working on goals, [...]. They named three cases of patients who at home perform certain activities independently, but on the ward these activities are taken over from them. [...] it went super well. Everyone contributed, positive atmosphere, constructive thinking with student nurse3, all kinds of problems were mentioned.</i> Facilitator's logbook. Cycle 1, phase: orientation 4. <i>At the start of the next period [...] the question is how to proceed and what is needed. [...] One of the possibilities is to further develop the clinical reasoning, incorporating the rehabilitation goals and increasingly work towards clearer reporting, more patient involvement, this aligns well with need and enjoyment in the team.</i> Facilitators progress report September 2021. Cycle 1, Phase: Evaluation</p>



Migchelbrink's criterium	Barriers	Quotes to Barriers	Enablers*	Quotes to Enablers
	work; part-time work.		<p><u>routines and fun of the team.</u>  <u>5. Being locked up in their ward through the COVID-19 pandemic, enhanced team bonding and bonding with facilitator. Working on the PAR distracted from stress caused by COVID.</u></p>	
<p>Knowledge sources: Have complementary sources of knowledge been used?</p>			<p><u>1.The safe learning climate facilitating the exchange of experiences and stimulating experimentation.</u>  <u>2. Meetings were on the ward, thus making it easy to involve patients in activities.</u>  <u>3. The facilitator, in her role as lecturer practitioner, having access to theoretical knowledge sources.</u>  <u>4. The exchange between more practically experienced team members and the theoretically schooled students.</u></p>	<p>1. <i>Facilitator: What circumstances do you think helped us [in reaching our goals]?</i>  <i>Nurse2 [also a work group member]: That it did not matter if I wrote crooked sentences [...]. That helped me, especially with the physiotherapist and the occupational therapist. They didn't mind. – Final Evaluation Work Group, June 2022</i>  4. <i>What made me happy was that nurse4 and student nurse4 together set up a board at Room 1. Really great to see how student and staff find each other and work together. – Facilitator's Logbook, Cycle 2, Phase: Action</i></p>
<p>Reflection: Are participants involved in a constant process of interactive reflection?</p>	<p>1. The reflection process was mainly being led by the facilitator. Her personal interests and knowledge gaps inevitably steered the team members' process of knowledge growth through reflection in a certain direction.  2. The facilitator, not having a note-taker at</p>	<p><i>2. Fancy lively meeting, nice conversations ensued, walking around along flip chart sheets also worked well. The only thing is: I find it difficult to make a good report of such a meeting. I am having a hard time taking notes and at the same time listening carefully.</i> Facilitator's Logbook. Cycle 1, phase: action</p>	<p><u>1. The involvement of other health professionals resulted in more insight in strengths and weaknesses in the team practice, weaknesses the team sometime was not aware of or had accepted as unsolvable. These insights she shared with the work group and some led to</u></p>	<p>1. <i>Talking to the physician on the ward, she mentioned that the rehabilitation plans are not always up to date [...]. The nursing team should use these plans when preparing the multidisciplinary team meeting. But if they're not up to date or goals are even missing than evaluating is difficult. Frequently, even goals on washing, dressing and toileting are missing, which you would expect the nursing staff to set up.</i> Facilitator's logbook. Cycle 1, Phase: Evaluation</p>

Migchelbrink's criterium	Barriers	Quotes to Barriers	Enablers*	Quotes to Enablers
	<p>her disposal, in her central position, constantly translating team member's issues, stories, and experiences to the subject of patient-centered rehabilitation, thus influencing the process by her own experiences and predispositions.</p>		<p><u>new initiatives.</u></p>	
<p>Transparency: Are steps and goals clear for all participants?</p>	<ol style="list-style-type: none"> <li>1. All team members had access to an internal information site to read and post messages, but not every team member was used to visiting that site for information.</li> <li>2. Due to bureaucratic issues, the facilitator not having access to this system for the first 1.5 years of the project.</li> <li>3. Discontinuity in staff during the PAR due to organizational and personal reasons.</li> <li>4. Alternating student groups requiring extra efforts to involve them.</li> </ol>	<p>3. <i>Because of COVID-19, the patient population is becoming more complex. Hospitals are postponing planned operations and only treating the really difficult cases. We currently have many physically and mentally demanding patients in the department, as well as absenteeism. The past few Wednesdays have not been very well attended because of this.</i> Facilitator's logbook. Cycle 2, Phase: Orientation</p>	<ol style="list-style-type: none"> <li>1. <u>The work group members functioned as ambassadors towards the other team members for the changes made and involved as many colleagues as possible in the process.</u></li> <li>2. <u>Work group members emphasized the importance of keeping all team members involved and deliberated the best ways to do this.</u></li> <li>3. <u>During a period of eighteen months, 25 newsletters were sent containing messages about the progress of the project. Back-office information showed that the newsletter was well read.</u></li> </ol>	<p>1. <i>Facilitator: But I am hopeful. Nurse1 [also work group member] sets herself up as something of an ambassador for the LIN, she is now convincing Nurse2 [new work group member] how important the preparation of the multidisciplinary team meeting is. I'm really happy with that.</i> Interview with Nurse3 Cycle 1, Phase: Action</p>
<p>Prudent handling of assumptions: Have assumptions been checked? How are conflicting</p>	<ol style="list-style-type: none"> <li>1. The facilitator's wish not to offend the nurses might have caused too much prudence and hampered asking essential questions.</li> </ol>	<p>1. <i>But I don't dare email that to her unannounced, because I'm sure she will take that as inadequacy on her part. So, I'm going to try to discuss it with her very gently tomorrow.</i> Facilitator's logbook. Cycle 2, Phase: Orientation</p>	<ol style="list-style-type: none"> <li>1. The facilitator's awareness of possible power imbalances. Not wanting to impose her opinion on the team, and aware of the authority she may embody as a lecturer practitioner, she</li> </ol>	<p>1. <i>Currently, preparing the multidisciplinary meeting in the electronic patient record is going well [...] The team members are positive about it, too. One of them said: Before, when it came to patients I didn't know, I had to improvise in the multidisciplinary team meeting. This made me feel uncertain: am I giving the right information? Now I can trust on what is written in the electronic record, it's an accurate representation of the patient's current situation.</i> Facilitator's logbook. Cycle 1, Phase: Action</p>

Migchelbrink's criterium	Barriers	Quotes to Barriers	Enablers*	Quotes to Enablers
viewpoints handled?			<p>kept checking with team members and nursing students how they experienced the change.  <u>2. The facilitator's awareness of her bias.</u></p>	<p>2. Facilitator: One of them [member of the multidisciplinary team] said things like: we shouldn't burden the nurses with that, that's too much administration for them [...] That annoys me, I find it patronizing, talking about burdening, it's their job. Facilitator's logbook. Cycle 1, Phase: Action</p>
<p>Accountability: Can the facilitator and work group members substantiate and justify what they want?</p>	<p>1. Work group members not being held accountable by their manager for results.                  2. Work group members not of their own accord linking the PAR activities to their organization's ambitions for quality improvement.                  3. Infrequent team meetings with all nursing staff present creating a barrier for work group members to share their actions with less involved team members.</p>	<p>3. Following the email Nurse2 wrote to the team about the MTM not going well, there was then a meeting this afternoon. The nurses were poorly represented [...]. It's a mystery to me ... why people don't come, nobody in the ward knew about it either. Although everyone had an invitation by mail. Facilitator's logbook. Cycle 2, phase: diagnosis</p>		

\*This column contains both enablers **that are concrete and transferable methods/processes/techniques that can be applied by other participatory action researchers** as enablers that were specific to this project and less easy to copy.

*What could be the next step? I propounded to the work group two focus areas [...] 1. Are we going to involve the patient, yes or no? 2. No specific nursing goals are present in the rehabilitation plan, as we have concluded several times. Which of the two shall we focus on?*

*They preferred to work on the conversation with the patient, because “ultimately that’s what it’s all about.” – Facilitator’s Logbook, Cycle 1, Phase: Evaluation*

The difference in pace between the facilitator and the work group and the nursing team sometimes caused friction. From the perspective of a researcher, some steps (e.g., jointly defining the goal of an action) asked for a more thorough procedure, but the time required might cause lack of involvement by the team, which mainly consisted of “doers.” On the other hand, the practical nature of some team members was also a sign of commitment to the PAR. This is illustrated by an email from a work group member who changed their practice after only one meeting about the plans for a project on writing goals on whiteboards:

*Good morning, Just to let you know that I succeeded in formulating small goals for patients. I did it with two patients [...] it took some time and I had to ask good questions, but it worked. – Email sent 20 January 2022, Cycle 2, by Nurse2, Phase: Orientation*

## Participation

Although it is not always possible to involve all participants present in the PAR setting, Migchelbrink (2018) emphasizes the importance of engaging as many members of the community in question. In our case, this concerns the nurses and students of the geriatric rehabilitation ward. Weekly group sessions with nurses and student nurses led by the facilitator formed the basis of the PAR. The sessions were held in the team room on the ward, which was equipped with a large table, two whiteboards, and a computer screen on the wall. Pagers were dispensed during sessions, and staff breaks were respected. In these group sessions, action research and educational activities were intertwined. In the orientation phase, the facilitator, nurses, and students got to know each other and collectively reflected on the present practice and context, with the intent of ultimately improving their goal setting and achievement with patients (see also section Reflection). Then, in the diagnostic phase, they collaboratively decided “what is the matter” and, in an ongoing dialogue, discussed and chose possible actions through voting. In the development phase, actions were prepared in a design or plan. Subsequently, in the action phase, changes were implemented and concurrently evaluated. In a new cycle, new actions were performed based on the evaluation; in the evaluation phase, participants also reflected on the

process, answering questions like “What have we learned?” and “How did we cooperate?” All in all, the Wednesday sessions became popular during the PAR:

*Quote of the day by nurse5: “I really like those sessions on Wednesday! Please email me!” – Facilitator’s Logbook, Cycle 1, Phase: Action*

Instrumental to this success was the facilitator’s strategy to align the overarching theme and activities as much as possible to the needs, routines, and not in the least, the fun of the team.

*At the start of the next period [...] the question is how to proceed and what is needed. [...] One of the possibilities is to further develop the clinical reasoning, incorporating the rehabilitation goals and increasingly work towards clearer reporting, more patient involvement, this aligns well with need and enjoyment in the team. – Facilitators progress report, September 2021. Cycle 1, Phase: Evaluation*

Despite the positive experiences, the weak organizational preconditions for involving nurses in quality improvement hindered full participation in all phases of the PAR. For example, the nursing staff did not have earmarked hours for quality improvement tasks. This posed the risk of the PAR becoming mainly the students’ project:

*While the orientation and diagnosis phases were a collaborative process between team and students, in the development phase it was mainly the students’ turn. Students, because they are doing internships, can claim time to work on improvement projects. So far, it has not been possible to form an “improvement team” that includes employees from the nursing team. –Facilitator’s Logbook, Cycle 1, Phase: Development*

## Knowledge sources

This section describes the use of complementary knowledge sources. According to Migchelbrink, three knowledge sources play a role in developing knowledge for action, the ultimate goal of PAR. Both the results of empirical research collected during the PAR as well as participants’ knowledge are needed, and existing academic knowledge is deployed (Migchelbrink, 2018, pp. 117–119). To start with the final: theoretical models were used as guides to stimulate exchange between team members while reflecting on their practice. Examples include Thompson’s (2007) model of patient participation and descriptions of patients’ needs concerning goalsetting (Vaalburg et al., 2021). The latter were used to reflect on questions like, “As it comes to meeting these needs, which one has priority?” and “As a member of the nursing staff, is it your role to meet this need?” Furthermore, nursing

students studied literature on patient involvement in multidisciplinary team meetings (MTM). In the second PAR cycle, a report on research about working with whiteboards was used as an example for a small-scale research project on the ward. During the PAR, several forms of empirical research were used. Patients were interviewed about their personal rehabilitation goals, about their involvement in the rehabilitation process, about the preparational talk prior to the MTM, and about their experiences with goals written on a whiteboard. Students observed colleagues while preparing the MTM and interviewed them about their practice. Students and nurses were interviewed both individually and in a group about their experiences preparing the MTM following the new procedure. A digital survey was conducted amongst nurses about their role in the MTM. During a period of 12 weeks, the team counted the number of preparatory reports in the electronic patient record and whether patients were involved. Twice during a period of twenty weeks, a survey was held among patients asking about the way they exercised regarding rehabilitation goals (independently or with help) and how they remembered their exercise goals. The whiteboards in the patients' rooms were also examined for exercise objectives or instructions. Finally, the knowledge of nurses and students based on their practical experience played an important part in this PAR. Every Wednesday, time was spent reflecting on their work. (See the reflection section for a further elaboration of tools used to facilitate this.) During group sessions, the more practically experienced team members and the theoretically schooled students participated equally and often pulled together:

*What made me happy was that nurse4 and student nurse4 together set up a board at Room 1. Really great to see how student and staff find each other and work together. –Facilitator's Logbook, Cycle 2, Phase: Action*

Nurses discussed the clinical situation of a patient including the rehabilitation goals set by the multidisciplinary team and reflected on how these goals matched the patient's personal goals. In the two action phases, experiences were shared, and participants reflected on preparation for multidisciplinary team meetings and working with whiteboards. This led to more specific practical knowledge.

*Student nurse5 made the observation that through this way of talking with the patient (going through their rehabilitation goals and telling them that they as their nurse need to be well informed about the current progress of the patient) [...] the patient, instead of bringing up his own points, helps the nurse to make a good turn in the multidisciplinary team meeting. –Facilitator's Logbook, Cycle 1, Phase: Action*

## Reflection

This paragraph describes how reflection, as a core process of the PAR process was facilitated. Migchelbrink states that “through collective reflection participants develop new perspectives for action and their abilities to act/competences are strengthened. (...) Reflection can be seen as a vehicle for change” (2018, p. 131). Reflection was a central activity in this PAR. Nursing team members reflected on their practice weekly and generated new insights and ideas through this collaborative process. To disclose the often-tacit knowledge and help the nurses and students verbalize and share their work experiences, several creative methods were applied in the team sessions. With the help of Wisdom quotes (self-invented, quotes derived from Loesje, n.d.) the participants exchanged about their current work life on this ward. With the help of animal pictures (self-invented method) the participants explored their role in the multidisciplinary team. Using the Geriatric Quartet Game (Studio GRZ, 2020) they investigated what kind of geriatric rehabilitation nurse they are and what aspects appeal to them about working in geriatric rehabilitation. The method Reflection Lense (self-invented method) was used to help compare several theoretical representations of geriatric rehabilitation issues theory to real practice. Through talking about and reflecting on the similarities and differences between theory and practice, new ideas about their work and actions emerged. For example, based on theory about what patient characteristics influence their level of participation (Thompson, 2007) we explored the question: “Do we recognize these characteristics in our patients?” and “How can we meet the needs of patients with certain characteristics?” With the Fishbone chart or Ishikawa-diagram (Lean Six Sigma Groep, n.d.) participants mapped the causes of waning self-management of patients. Participants reflected on the question, “How to ensure a patient-centered approach despite shift work?” by drawing a Flow Chart (self-invented method), thus making sense of joint actions that contribute to continuity of care. Clinical case discussions were used to explore and elaborate on the interconnection between the professional goals and the patient goals, and patient’s understanding of the rehabilitation process. For this purpose, we developed a method called Clinical Coffee talk. The method was based on the Situation-Background-Assessment-Recommendation hand-off tool. Using the Flip Over Dialogue method (Actieonderzoek Academy, n.d.) a reflection session was held on the experience of preparing the MTM. Each flap had a different main question (see [Figure 1](#)). Participants answered the question, exchanged in their sub-group, and then moved to the next flap.

Reflecting on their experiences resulted in personal awareness for the team members and students (e.g., about a preferred way of working, the added value of preparation with the patient, or certain barriers in the conversation with the patient).

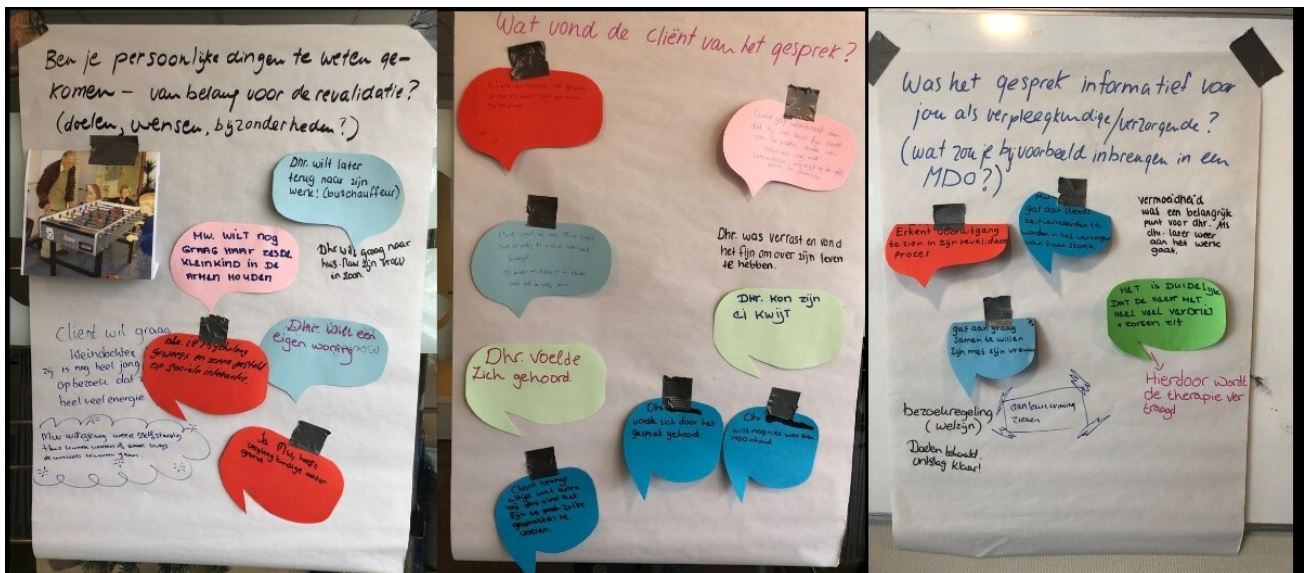


Figure 1. Reflection session held on the experience of preparing the MTM. Flap 1: What personal information did the patient reveal, relevant for the rehabilitation (e.g. goals, wishes)?; Flap 2: What did the patient think of the interview?; Flap 3: Was the interview useful from a nursing point of view? What will you take away from it to the MTM?

*We had this really special talk with the extraordinary outcome that some of the nurses are reluctant from their culture to go too deeply into what concerns patients. They do not want to invite people to talk about their dirty laundry. To build a relationship in which patients are willing to share their concerns, some nurses employed the strategy of sharing some personal information.*  
 –Facilitator’s Logbook, Cycle 1, Phase: Action

Through the method Paper Prototyping (Dveer, 2021) students and nurses made an effort to translate information from the electronic patient record to a whiteboard format on paper. Patients were not involved in the actual drawing of a prototype but did comment on the results and share their opinions on usability of the boards.

## Transparency

The question Migchelbrink (2018) wants us to answer as it comes to the transparency of the PAR process is: “Are steps and goals clear for all participants?” This is especially important in the light of the empowerment of participants. PAR does not only lead to new behavior or practice, but also empowers those involved. They gain more control over their situation. This can only happen if the entire process is understandable and “fits within the participants’ horizon” (Migchelbrink, 2018, p. 79). Both the facilitator and the work group members played a role in keeping team members informed and thus helping them actively participate. Decisions on the action to undertake in both action cycles were taken in group sessions. In the first cycle this happened through voting, in the second through a co-creation session on working with whiteboards. The facilitator functioned as a central figure, constantly connecting team member’s stories and experiences to the subject





Figure 2. Flip over sheet from a team discussion on the roles of a geriatric rehabilitation nurse

of patient-centered rehabilitation and actively bringing up the subject each week in different ways (see the knowledge sources and reflection sections). Work group members fulfilled an ambassador's role by discussing the PAR steps with team members during daily work. Flip over sheets sharing information from single sessions or summarizing a part of the PAR were hung on the team room wall to inform those who were absent (see [Figure 2](#)).

Nursing students would present their part of the PAR every twenty weeks, at the end of the internship period, in addition to once near the halfway point. Over a period of 18 months, 25 newsletters were sent to the nursing team members, the students, the physician, the allied healthcare professionals, the manager, and the quality officer. The newsletters contained updates on the progress of the project, questions to stimulate involvement, and more. Back office information showed that the newsletter was well read and contributed to the transparency. Messages were also posted on the internal information site of the organization.

### Prudent handling of assumptions

In PAR, everyone involved in the research is treated as active participants rather than passive subjects. However, work group members and facilitators are not equal to each other; they bring different knowledge and a different viewpoint, among other things (Migchelbrink, 2018). These differences need not be an obstacle to working together on an equal basis, as long as there is appreciation for what the other thinks, can, does, without judgement. Migchelbrink states that dialogue is an important instrument to get to know each other and jointly explore different perspectives (2018, p. 98). The facilitator repeatedly checked with the work group on the course of

the project and asked them to substantiate their points of view, for example on the PAR's underlying goal of increasing patient involvement in the rehabilitation process:

*Facilitator: "I spoke with a number of patients [...] and it struck me that they all put their rehabilitation process in your hands and those of the physiotherapist and the doctor. And they do not seem to have a problem with that. That made me wonder: why do we emphasize the importance of patient participation? It made me want to check this again with you." –Group Interview, August 2020, Cycle 1, Phase: Diagnosis-Development*

Some implicit assumptions or biases became clear throughout the process and were critically reflected on. When team members experienced assumptions about the role of the nurse from allied health care professionals, these assumptions were openly discussed and used as cases to reflect on within the nursing team:

*Student nurse2: "There was a risk of falling. So, we thought: it might be wise to talk about this with the patient. But they [allied health care professional] said: 'No, that's our job. You don't have to evaluate on that item.'" –Interview with student nurse. Cycle 1, phase: development*

## Accountability

Accountability is about being able to explain steps in the PAR process to external stakeholders (Migchelbrink, 2018). The facilitator was primarily responsible for this task. Reports on progress were written by the facilitator and in were then read and commented on by the project group members in order to achieve member checking. The reports were addressed to the manager, the director, the education officer, the quality officer, and the external project group. The facilitator was in regular contact with the quality officer to make sure initiatives on the ward aligned with nursing home regulations. The facilitator also reported obstacles at the nursing home level to the quality officer. The facilitator reported quarterly to the external project group. The work group was mainly focused inwards. Work group members did not link the activities to their organization's ambitions for quality improvement of their own accord. Additionally, management did not verbalize their expectations of which targets to strive for to team members. This was discussed in a final evaluation with a quality staff member:

*"Within our organization [...] that's often [...] I would not want to call it a shortcoming [...] but a bottleneck. Not only in our organization [...] by the way, other organizations experience this as well. We expect nurses to participate in project groups in addition to their regular duties." –Final Evaluation with Quality Staff Member, June 2022.*

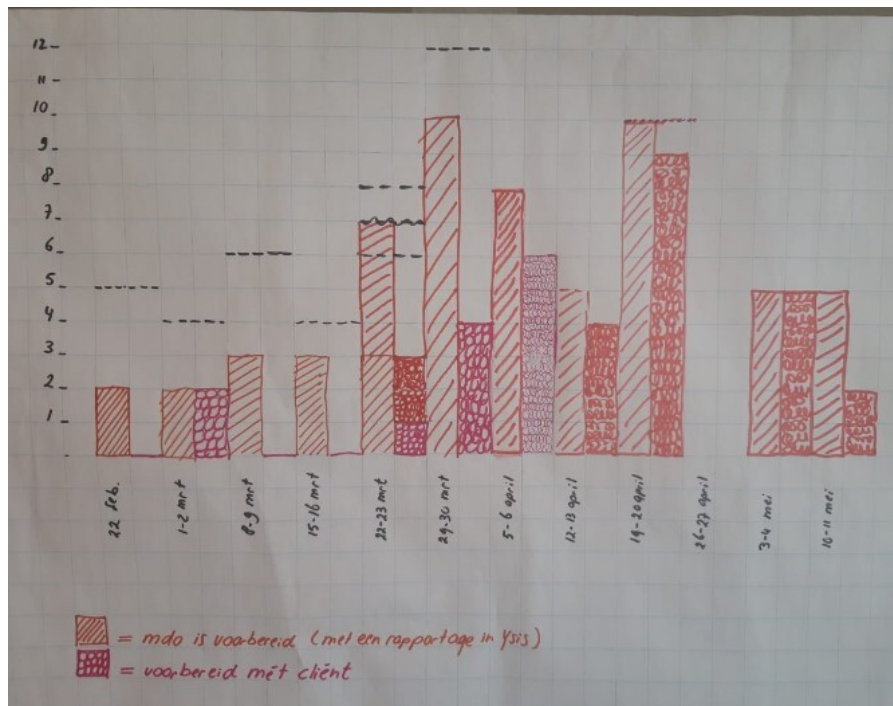


Figure 3. Bar chart showing the number of prepared multidisciplinary meetings (black dotted line: number of patients on MTM agenda; orange bar with stripes: number of prepared MTM meetings; pink bar filled with circles: MTM prepared with patients)

At one moment, the work group members felt the need to go public with the results of their project, because nursing staff of other geriatric rehabilitation wards commented on the large amount of personnel on the PAR ward due to the extra student nurses present. To make the results of their actions visible, one work group member created a bar chart showing the number of prepared multidisciplinary meetings, as well as the number that involved patients in the preparations (see [Figure 3](#)).

## Discussion

This study aimed to evaluate the process of involving nurses in this PAR, as well as the enablers and barriers that arose, using Migchelbrink's (2018) seven criteria. The underlying vision was that projects involving nurses will lead to more appropriate actions and offer a greater sense of control. Ultimately, the ambition is that PAR projects will enable nurses to increasingly succeed in defining their practice. From this PAR, one important enabling aspect emerges, which is the context in which this PAR took place: a learning and innovation network (Albers et al., 2021). This enabler falls under Migchelbrink's (2018) criteria focused on participation, knowledge sources, and reflection. Additionally, one crucial barrier occurred: the weak organizational structure for quality improvement, which falls under Migchelbrink's (2018) criteria focused on participation and accountability. Finally, some dilemmas arose related to the facilitator role. This was particularly evident in relation to the collaboration, participation, reflection, and transparency criteria. This project took place in the context of a learning and innovation network — in short, a (geriatric rehabilitation) team in which

learning together and improving care are core ambitions, enhanced by the addition of student nurses. In the learning and innovation network, reflection was built in as a natural, routine part of the work week; consequently, team members came to value their involvement in the participatory action process. The weekly sessions provided a safe learning climate for exchange and experimentation. The learning and innovation network thus offered the team “a space where people feel comfortable and safe,” which, according to Dedding et al. (2022), is the starting point of genuine participation. Like Cusack et al.’s (2018) participatory research with nurses in a public health practice in Canada, our results suggest that the sessions created a sense of belonging. Team members started to ask to be scheduled on Wednesdays. The learning and innovation network helped establish the so-called communicative space described by Habermas’s communicative spaces encourage critical reflection and understanding through dialogue, allowing participants to engage in collective reasoning and analysis of issues of their concern (Dedding et al., 2022). In our project, reflecting on practice was a core activity. Nursing practice and patient experiences were appreciated knowledge sources and reflecting on daily practice in several ways “led to uncovering layers of interpretations and understanding that may not be possible with other research approaches” (Dedding et al., 2022, p. 17). For example, this process led to honest conclusions about aspects of nursing practice that hamper an efficient rehabilitation process for the patient. We prudently assume that our goal to prevent epistemic injustice: ignoring nurses’ views because of their position, which is lower in rank than policy makers, and thus missing crucial information (Abma et al., 2017), has been achieved. The main barrier we encountered was the weak organizational structure for quality. While there was time on Wednesdays for exchange between team members and experimentation with new actions, time for actual research activities was not earmarked and was thus limited; we note that this affected the participation and accountability criteria. The underlying cause of the lack of earmarked time — the limited link between the PAR and overall quality policy of the organization — deserves attention. We tend to presume that a power structure in which PAR and quality management are connected will lead to more sustainable results. Comparing our project to Cusack et al.’s (2018), in which public health nurses were involved, exposes the added worth of an organizational power structure on quality management involving nurses. In that PAR, a nursing practice council of the organization functioned as the main structure (Cusack et al., 2018). A nursing practice council is a formalized structure for staff nurse decision making in operational and professional practice issues (Peppel et al., 2023). Primary participants were members of the practice council; secondary participants were nurses who attended the practice council’s meetings and in turn engaged colleagues on their teams. This formalized council and team communication structure ensured high participation (Cusack et al., 2018). Joseph and Bogue (2016) state that organizations with higher levels of shared governance, of which

practice councils can be part, show faster uptake of new methods that improve nursing outcomes. Dedding et al. argue that if we want participation to become sustainable, it needs to be grounded in the “capillaries of an organization” (2022, p. 7). Williamson and Prosser (2002) claim that when the organization’s commitment to develop and learn from practice is failing, action research can cause frustration, producing much reflection but little change. Cornish et al. (2023) plead for collaborations that are backed through sustainable staff appointments, formal recognition of the value of research-practice partnerships, and provision of administrative support. Both Dedding et al. (2022) and Cornish et al. (2023) advocate building bridges, not only to ensure that policymakers and researchers gain an in-depth understanding of people’s needs but also vice versa. Grounding participation in the organizations’ influence structure will help participants — in our case, nurses — understand the perspectives of researchers, policy makers, and managers. This mutual understanding establishes a more sustainable relation between research and practice (Cornish et al., 2023). Dedding et al. (2022) argue that to achieve this, policymakers and researchers need to familiarize themselves with more creative and inclusive methods. Shared governance can take many forms and tends to be limited to traditional board governance with some staff input (Joseph & Bogue, 2016). This PAR showed how participation at the ward level can be made enjoyable. As a final point, we highlight the dilemmas the facilitator experienced with influence and power. These dilemmas became apparent in collaboration, participation, reflection, and transparency. The facilitator struggled with lack of influence because of her external position. She employed three strategies to overcome this. First, she focused on changes that aligned as much as possible with the team members’ existing routines. Bunn et al. (2020) confirm that this increases the chances of successful uptake of an intervention. Second, she adapted to the team members’ pace to keep them involved, a strategy also applied by Spalding (2009) in her PAR with nurses. Third, she used her influence as a teacher as a catalyst at some stages of the PAR. On the other hand, at some stages, the facilitator experienced more power or influence than she deemed appropriate for PAR, as became apparent under participation, transparency, and reflection. Due to the lack of earmarked time for actual research activities, they were mainly performed by the students in collaboration with the facilitator. Spalding (2009) argues that equal participation in all phases of PAR is not essential and that an imbalance can be viewed positively: the researcher respects the limited time of the other participants by taking on a more in-depth coordinating role. However, in our project, the facilitator’s more dominant role risked steering the project in a specific direction because of her personal background as a former nurse striving for a more central position of nurses to enhance patient-centered care. The facilitator tried to minimize this effect by constantly checking assumptions with the work group and the team. The results show that the balance between the external facilitator and the internal engaged

leaders was suboptimal. According to Buckley et al. (2022), who reported on using PAR to implement guidance in long-term care settings, both parties are key components to successful implementation.

Closing this discussion, we tie together the three main lessons we learned about involving a nursing team in PAR and recommend further research. The learning and innovation network provided a space for nurses to reflect on their practice. This led them to draw honest conclusions about their nursing practice and self-select solutions. However, there was a feeble link between the PAR and the organization's overall quality policy, which hampered full involvement and gave the facilitator more power than desirable. A PAR supported by a shared governance structure might well solve these issues. First, a structure that covers and connects all layers of the organization and formally arranges participation, democratic decision making, and accountability establishes a substantive and natural link between management's goals and what happens in the wards. Second, it guarantees nurses' involvement and engagement at all stages of PAR. Specifically in the light of the new Dutch legislation (Rijksoverheid, 2023) that gives nurses a say in their organizations' care policies, we recommend research on PAR as a method to shape shared governance and allow nurses to take the role they deserve in improving their practice.

### **Strengths and limitations**

The facilitator's logbook was an important data source, used to assess nursing team members' involvement in this PAR. Therefore, findings may reflect the facilitator's predisposition. Deductive analysis carries the risk of losing data that does not fit the predefined categories. However, no additional themes were captured that were not initially accounted for in the deductive framework.

The facilitator was a novice to PAR. An experienced researcher might have been more aware of the importance of involving management and quality staff and would have demanded their commitment to the organization. The facilitator's experience as a nurse was a strength — she could easily relate to the team members' practice. Her experience as a teacher was a strength, too, as she possessed competencies to enhance reflection and stimulate exchange, through which knowledge growth occurred.

### **Conclusion**

This study uncovered that providing a time and setting for reflection and collective learning enables a nursing team to be actively involved in PAR: it helps them diagnose their current practice, plan, and critically experiment with proposed actions. Additionally, a positive learning climate facilitates this process. However, the lack of a strong link with quality policy and the consequent lack of facilitation of participation through earmarked time served as a barrier. As a result, efforts are less likely to lead to sustainable change. A more permanent link between PAR initiatives and organizational quality ambitions is needed.

## **Funding**

This work was funded by the Netherlands Organization for Health Research and Development (ZonMw) grant number 516022527.

## **Acknowledgements**

The authors would like to thank the organization and the healthcare professionals who participated in the study.

## **Conflict of interest**

The authors declare no conflict of interest with respect to the research, authorship, or publication of this article.

Submitted: October 25, 2023 EDT, Accepted: March 12, 2024 EDT



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