

Evaluation of patient participation in relation to the implementation of a person-centered nursing shift handover

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Abstract

Background: It has been suggested that nursing shift-to-shift handover should be a more team-based dialogue with and for the patient rather than about a patient.

Aim: The aim of this study was to evaluate patient participation in relation to the implementation of the person-centered handover (PCH).

Method: A pretest–posttest design was used without a comparison group, including patients from nine units in a university hospital at pretest ($n=228$) and after implementing PCH (posttest, $n=253$) per the framework integrated-Promoting Action on Research Implementation in Health Services. The PCH is inspired by an Australian bedside handover model. The Patient Preferences for the Patient Participation tool was used to rate the preference for and experience of participation on 12 items, combined into three levels of preference-based participation (insufficient–fair–sufficient).

Results: There were no differences regarding experience or preference-based participation between patients at pretest–posttest; however, posttest patients experienced participation in the item *Reciprocal communication* to a lesser extent than the pretest patients. Only 49% of the posttest group received PCH; of those not receiving PCH, some would have wanted PCH (27%), while some would have declined (24%). Patients receiving PCH had sufficient participation (82%), to a greater extent, regarding the item *Sharing one's symptoms with staff* than patients at pretest (72%). Patients receiving PCH also had sufficient participation, to a greater extent, than patients at posttest who did not receive, but would have wanted PCH, regarding four items: (1) *sharing one's symptoms with staff*, (2) *reciprocal communication*, (3) *being told what was done*, and (4) *taking part in planning*.

Linking evidence to action: Most patients want to be present at PCH. Therefore, nurses should ask for the patients' preferences regarding PCH and act accordingly. Not inviting patients who want PCH could contribute to insufficient patient participation. Further studies are needed to capture what assistance nurses would want in identifying and acting in alignment with patient preferences.

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KEYWORDS

bedside handover, bedside handover report, patient participation, person-centered handover, preference-based participation, preferences

BACKGROUND

Shift-to-shift patient handovers are a critical event for quality of care, yet, establishing best practices for nurses (Bressan et al., 2020) continues to be a challenge worldwide. A lack or gap in information communicated during handover can hamper the continuity of care, leading to nuisance, inappropriate, or delayed treatments (Abdellatif et al., 2007). The bedside handover model (Chaboyer et al., 2010) is described as a verbal face-to-face handover, where nurses can use communication techniques such as iSBAR (introduction, Situation, Background, Assessment, Recommendation) with opportunities for patients to engage on their own terms. Consequently, it has been reported that bedside handover improves patient safety culture, lowers frequency of care injuries, and promotes patient-centered care (Chaboyer et al., 2009; Clari et al., 2021).

Sweden, like many countries, has a healthcare legislation that emphasizes conditions for patient participation (Patient Act, 2014). Still, compliance with such policies among healthcare professionals is lacking, and patients report a deterioration when it comes to their participation in care being requested and welcomed (The Swedish Agency for Health and Care Services Analysis, 2017). A multifaceted concept like patient participation includes elements such as being in a reciprocal and caring relationship (Nilsson et al., 2019); this requires that nurses have an inviting attitude and the skills needed to adapt their dialogue to each patient (Castro et al., 2016). In addition, nurses need to recognize and respond to patients' preferences for participation, which is a challenging task as the patients' preferences may vary in accordance with changes to their condition, or in relation to healthcare interventions (Eldh et al., 2015; Tobiano et al., 2015). The information-sharing activities, as suggested during a bedside handover, may improve patient participation (Tobiano et al., 2015) and build a nurse–patient relationship (Tobiano et al., 2018). However, it has also emerged that the handover could be perceived as nurse-centered, where the patient is blocked from participating in accordance with their own preferences (Tobiano et al., 2018). In the present study, the handover was given the title person-centered handover (PCH), with the intention that staff would collaborate with patients as team members, acknowledging patients' values and beliefs and adapting the dialogue to the individual's preferences (Ekman et al., 2011). With opportunities to facilitate a person-centered engagement, it was deemed that PCH could potentially enable patient participation. Therefore, the aim of the current study was to evaluate patient participation in relation to implementation of the PCH.

METHOD

Design

A pretest–posttest design was used without a comparison group (Polit & Beck, 2021), with a sequential start across nine units at a hospital (February or September 2018 to June 2019), depending on when the units practiced and implemented PCH. The sample at pretest and posttest comprises different cohorts of patients. Thus, patients hospitalized within a 5-week period before implementation of PCH, that is, pretest, were approached for inclusion in the study. Twenty-five weeks after the units practiced and implemented PCH, that is, posttest, hospitalized patients in the units at that time were approached for inclusion.

Study context

This study took place at a Swedish university hospital, with approximately 900 beds (single or up to four beds per room). Specifically, the hospital had adopted a policy including handover together with patients. The previous handover routine encompassed nursing staff reading the electronic record system in an office as they started their evening shift. Moreover, the reading could be supplemented with a short recap between the nursing staff at shift change, but without the patients. The staff comprised registered nurses with a bachelor's or master's degree, and assistant nurses. The hospital units represented encompassed medicine, neurology, surgery, orthopedics, rehabilitation, maternity, gynecological, and stroke care.

PCH at the change of nursing shift

The PCH implemented was inspired by an Australian bedside handover model (Chaboyer et al., 2010). Accordingly, the morning staff informed the patients in advance that the handover was approaching, and relatives were invited to participate at the patient's request. The handover started with the morning shift nurse's introduction of staff, the patient, and, if present, the patient's relatives, and continued with the sharing of information based on the structure of iSBAR. The handover ended with the morning nurse asking if there were any questions or concerns.

A stepwise training program facilitated the implementation of PCH, inspired by the framework of Integrated Promoting Action on Research Implementation in Health Services (i.e., i-PARIHS; Harvey & Kitson, 2015). Consequently, each hospital unit apportioned an

implementation team (a registered nurse, an assistant nurse, and their nurse manager) to the training program, with the assignment to both train their colleagues and implement the PCH. Training took place on three occasions for 3 h per session, by two researchers. The training material included a PCH instructional video and PowerPoint presentations with recorded lectures: Current Bedside Handover Evidence; Bedside Handover Process; and Implementation Process Highlighting Competence, Leadership, and Supportive Organization. Moreover, the training included the assignment to tailor the handover process to the specific units' daily schedule, and the handover protocol, that is, iSBAR and glossary to their patients, to enable an adoption of the PCH model. The team members were encouraged to keep the handover brief, 3–5 min, and use lay terms, emphasizing the need to engage the patient, for example, by promoting talking to (rather than about) the patient.

Thereafter, the teams trained their colleagues, using training material that was tailored specifically to the practice. To instill confidence in carrying out PCH, the teams were asked to use the role-play technique (practicing handover situations without patients in a secured setting and instructing peers on how to minimize risks in shared bedrooms [e.g., lowering one's voice, or sharing potentially sensitive information in writing]; Tobiano et al., 2017). Some teams tailored the PCH to only be performed in rooms with single beds. Besides the training program, the researchers helped the teams during three meetings for 30 minutes and through feedback from an observation.

Study participants

Patients satisfying the inclusion criteria were invited to participate in the study: 18 years or older and hospitalized at least 1 day (i.e., having had the opportunity to be present at a nursing shift handover). Exclusion criteria were communication difficulties (including confusion and non-Swedish-speaking patients) and care at the end of life.

Data collection and questionnaires

A pilot test was carried out at a separate hospital unit prior to this study to test the training program and data collection, resulting in minor adjustments. Data were collected from each unit for 5 weeks, from Monday through Friday, with patients being included consecutively. A member of the research team visited the units daily to identify eligible patients, informing those who met the inclusion criteria in writing and orally, and asking them to consider the information before agreeing to participate in the study, as well as collecting the written consent. Consenting patients answered a set of questionnaires (10–15 min) and left them in a sealed envelope in allotted mailboxes in each unit at the time of discharge. Patients who preferred to respond post-discharge received a prepaid envelope to return their response.

Patients' preferences for patient participation (4Ps)

The Swedish 4Ps tool captures four aspects of participation (i.e., dialogue with healthcare staff, sharing knowledge, partaking in planning, and managing self-care) and enables patients to depict their preference-based participation in health care by means of 12 items reiterated in two sections: (1) preferences and (2) experiences (Eldh et al., 2015). Preferences (for me as a patient to participate) are marked for each item as: unimportant, somewhat important, very important, or crucial. Experiences of participation are reported as having occurred: not at all, to some extent, to a large extent, or entirely. The four response alternatives for the two sections resulted in 16 combinations of degree of match (plotted in a ranking scale, 0–5), representing three levels of preference-based patient participation for each item: insufficient–fair–sufficient (Eldh et al., 2020). Insufficient illustrates a mismatch between the patient's preference and experience (e.g., crucial and not at all). Fair indicates room for improvements, while sufficient shows a good match (e.g., crucial and entirely). The patients answered both sections at the time of discharge. The 4Ps tool is considered to have reasonable psychometric properties (Luhr et al., 2018) and acceptable content validity (Eldh et al., 2015). In this sample, internal consistency (Cronbach's α) for preferences and experiences was α .85 and α .91, respectively.

Two study-specific questionnaires

Patient characteristics (Table 1) were collected at pretest and posttest. At the posttest, an additional questionnaire was added to capture perceptions of PCH, inspired by a discrete choice experiment protocol (Spinks et al., 2015). This included the following items: handover location (i.e., bedside, other location with me, other location without me, do not know); given the opportunity to partake in the PCH (Yes, Yes—but I did not, No—but I would have wanted to, No—I would not want to); what being present at PCH meant (I heard, I asked questions, I did not partake); what information was given at the PCH (medical condition, care needs, planning of care/treatment); how sensitive information was handed over (in a low voice, in writing, do not know/without me); whether relatives were invited (Yes, No, Not applicable/not present); and if the handover worked well (agree completely, partially agree, do not know, do not agree, do not agree at all). Face validity was deemed acceptable: it was easy to answer based on the response rate and the absence of queries during the pilot.

Ethical considerations

The study was performed according to the Declaration of Helsinki (The World Medical Association, 2022) and approved by the Ethical Review Board. The heads of 13 units at the hospital registered interest through written approval, and nine acceded. Participants could

TABLE 1 Demographic Data.

	Pretest n=228 (%)	Posttest n=253 (%)	p ^a
Unit			<.001 ^b
Maternity	55 (24)	71 (28)	
Medicine	27 (12)	78 (31)	
Surgery	146 (64)	104 (41)	
Gender			>.050 ^b
Female	144 (63)	167 (66)	
Male	84 (37)	82 (33)	
Other	0 (0)	1 (0)	
Missing	0 (0)	3 (1)	
Level of education			>.050 ^b
Elementary school	55 (24)	64 (25)	
High school	81 (36)	84 (33)	
University	91 (40)	102 (41)	
Missing	1 (0)	3 (1)	
Employment			>.050 ^b
Unemployed	4 (2)	9 (4)	
Employed/Student	114 (50)	119 (47)	
Long-term sick leave	9 (4)	16 (6)	
Retired	97 (42)	108 (43)	
Missing	4 (2)	1 (0)	
Hospitalized, duration			<.001 ^c
1 day	47 (21)	21 (8)	
2-5 days	132 (58)	159 (63)	
≥6 days	42 (18)	69 (27)	
Missing	7 (3)	4 (2)	
Illness, duration			>.050 ^c
≤1 month	62 (27)	80 (32)	
1-6 months	25 (11)	34 (14)	
6-12 months	16 (7)	11 (4)	
≥12 months	66 (29)	54 (21)	
9-month pregnancy	55 (24)	71 (28)	
Missing	4 (2)	3 (1)	
Regular contact with health care, due to other illness/disability			>.050 ^b
Yes	79 (34)	77 (30)	
No	132 (58)	159 (63)	
Previous in life	13 (6)	15 (6)	
Missing	4 (2)	2 (1)	
Hospital room, beds			<.001 ^b
Single	113 (50)	169 (67)	
Double	69 (30)	56 (22)	
≥2 beds	44 (19)	26 (10)	
Missing	2 (1)	2 (1)	

TABLE 1 (Continued)

	Pretest n=228 (%)	Posttest n=253 (%)	p ^a
Age (years)			>.050 ^d
Mean (SD)	58.1 (19.5)	56.3 (20.7)	
Min-Max	22-95	21-96	
Missing	2 (1)	1 (0)	

^aSignificant level .05.

^bChi-square.

^cMann-Whitney U.

^dIndependent T-test.

decline study participation whenever they wanted, without providing a reason. Reasons for exclusion and declining participation, if stated, were documented anonymously. Data were treated with confidentiality; consent forms and codes identifying the patients were kept locked up, separate from the collected data.

Data analysis

The IBM SPSS statistics 27 software was used for the analysis. The posttest was grouped by the PCH contact, via a cross-tabulation of response options from two questions (location + opportunity) in the study-specific questionnaire.

- A Received PCH=location (bedside; other location with me)+opportunity (Yes)
- B No PCH—would have wanted PCH=location (other location without me/do not know)+opportunity (No—but I would have wanted to)
- C No PCH—would have declined PCH=location (other location without me/do not know)+opportunity (Yes—but I did not; No—I would not want to)

Demographic data between the pretest-posttest group were analyzed by chi-square (nominal data), Mann-Whitney U-Test (ordinal data), Independent t-test (continuous data), and ANOVA (subgroups A-C). Patient participation was analyzed by Mann-Whitney U-Test (pretest-posttest; pretest-subgroup A) and Kruskal-Wallis (subgroups A-C).

RESULTS

Altogether, 481 patients were included. The response rate at pretest was 50% (n=228 of 459 eligible) and 44% (n=253 of 574 eligible) at posttest. This includes the internal dropout at posttest (n=21), for example, not responding to one of the two sections in 4Ps. Exclusion criteria included hospitalized less than 1 day (pretest n=23; posttest n=147), communication difficulties (pretest n=125; posttest n=320), care at the end of life (pretest n=4; posttest n=5),

and administrative aspects (e.g., patients not being informed about the study, change in care unit, or discharge at short notice; pretest $n=176$; posttest $n=328$).

Demographic characteristics are described in Table 1. Patients' characteristics between pretest and posttest were comparable, except for the pretest patients who shared rooms more often and were hospitalized for 1 day in a surgery unit compared to patients at posttest ($p < .05$). Only about half of the posttest group (49%) received PCH (A, $n=120$ of 244, missing $n=9$). For the other patients in the posttest group, the handover was carried out without them. However, if they had been given the opportunity, some would have wanted PCH (B, $n=66$), while some would have declined PCH (C, $n=58$). Posttest patients receiving PCH were younger than patients who would have declined PCH (A: M 52 years, SD 20.7; C: M 60 years, SD 18.8; $F [2, 240] = 4.566, p < .05$; B: M 59 years, SD 20.3).

Patients receiving PCH ($n=115$ of 120) reflected on the following experiences, in proportions as follows: I heard (50%), asked questions (12%), or both (35%), as well as I did not partake (3%). Patients ($n=108$ of 120) also reflected on whether nurse handover worked well; specifically, 76% completely agreed, 15% partially agreed, 2% did not agree, 1% did not agree at all, while 6% did not know.

Preferences for participation were similar between patients at pretest–posttest for all 12 items (Table S1). Patients receiving PCH (A) had a lower preference for participation regarding the item *Reciprocal communication* (A; 26% crucial) than the pretest patients (36% crucial; $U = 15,111, 500, N_{Pre} = 227, N_{Post-A} = 119, p < .05$; not presented in Table 2). The posttest subgroups (A–C) had similar preferences.

Experienced participation was similar for 11 out of 12 items between patients at pretest–posttest: patients at posttest experienced participation for the item *Reciprocal communication* to a lesser extent than the pretest patients ($p < .05$). Pretest and patients receiving PCH (A, posttest) had similar experiences of participation. The posttest group had significant differences between the three internal subgroups: patients receiving PCH (A) or would have declined PCH (C) had experienced participation in several items to a higher extent than patients who had the handover carried out without them but would have wanted PCH (B; A–B, 10 items; C–B, 4 items, $p < .05$; Table 2).

Preference-based participation was similar for all 12 items between patients at pretest–posttest. Patients receiving PCH (A) had sufficient participation to a greater extent for the item *Sharing one's symptoms with staff* (A; 82% sufficient) than the pretest patients (72% sufficient; $U = 12169.500, N_{Pre} = 228, N_{Post-A} = 119, p < .05$; not presented in Table 2). The posttest group showed a significant difference between the three internal subgroups: patients receiving PCH (A) or would have declined PCH (C) had sufficient participation to a greater extent than patients who had the handover carried out without them but would have wanted PCH (B; A–B 4 items; C–B 3 items, $p < .05$; Table 2).

DISCUSSION

In general, evaluation of the different aspects of patient participation (dialogue with healthcare staff, sharing knowledge, partaking

in planning, managing self-care) using the 12 items in the 4Ps tool showed no significant differences between the patients at pretest and posttest, except for the patients at posttest who experienced participation for the item *Reciprocal communication* to a lesser extent than the pretest patients. Within the posttest group, it was the patients in the internal posttest subgroup (B) who would have wanted but did not receive PCH that experienced the lowest proportion of *Reciprocal communication*. Based on this, the low experiences of *Reciprocal communication* at the posttest may be a reflection of a certain degree of expectation bias (Polit & Beck, 2021). Nonetheless, since patient participation includes elements, such as being in a reciprocal and caring relationship (Nilsson et al., 2019), the finding requires additional verification.

Our findings also indicate that receiving PCH provided patients with the level of sufficient preference-based patient participation to a greater extent for the item *Sharing one's symptoms with staff*, compared to a non-patient handover. It also emerged that receiving PCH contributed to enhanced experience of patient participation and a more sufficient preference-based participation for patients whose willingness to be present at PCH was recognized.

Although most patients would like to have the handover at the bedside (Oxelmark et al., 2020), not all patients' willingness to be present at PCH was recognized. This reinforces previous statements that patients perceive that their participation in care is not always recognized or requested (The Swedish Agency for Health and Care Services Analysis, 2017; Tobiano et al., 2018). Patients' age may have been a variable regarding who received PCH and who did not, as patients that received PCH were younger. Another explanation for not recognizing patients' willingness for PCH could be that nurses generally prefer to have the handover away from the bedside, as previously described by Oxelmark et al. (2020). Nonetheless, these reflections call for further consideration, since key factors for patient participation are dependent on nurses' inviting attitude, their ability to adapt the dialogue to each patient (Castro et al., 2016), and their ability to recognize and respond to patients' preferences for participation (Eldh et al., 2015). Thus, finding a way for nurses to acknowledge patients' willingness to be involved in care processes resonates well with preference-based patient participation, which is a prerequisite for person-centered care and an important part for PCH to be incorporated into practice.

Limitations

The change in the nursing shift handover routine is complex, involving culture, attitude, behavior, and language (McMurray et al., 2010). Not all units implemented PCH to the point of “embedded PCH in practice” (Harvey & Kitson, 2015), as more patients in four of the nine hospital units reported they wanted PCH than those who received it. The implementation strategy could have been strengthened by mapping and addressing the implementation teams' ability to establish the change in the culture of the

TABLE 2 Patients' Experiences of and Preference-Based Participation Comparison Between Pretest-Posttest and Within the Posttests' Subgroups (A-C).

4Ps' items	Experiences										Preference-based					
	Group	N	1%	2%	3%	4%	p	Pairwise comparisons	Adj. Sig	N	1%	2%	3%	p	Pairwise comparisons	Adj. Sig
Being listened to	Pre	227		4.8	53.7	41.4				227	1.3	27.8	70.9			
	Post	253		7.1	54.2	38.7				253	4.0	23.3	72.7			
	A	120		4.2	50.0	45.8	.013			120	3.3	20.8	75.8			
	B	66		13.6	59.1	27.3		B:A	.010	66	6.1	30.3	63.6			
	C	58		5.2	56.9	37.9				58	3.4	17.2	79.3			
Experiences being recognized	Pre	223	1.3	17.0	58.3	23.3				223	4.9	16.1	78.9			
	Post	245	2.4	16.3	59.2	22.0				245	6.1	16.7	77.1			
	A	118	2.5	13.6	51.7	32.2	.002			118	5.9	12.7	81.4			
	B	62	3.2	27.4	58.1	11.3		B:A	.001	62	11.3	21.0	67.7			
	C	56	1.8	7.1	76.8	14.3				56	1.8	21.4	76.8			
Reciprocal communication	Pre	228	0.9	7.0	56.1	36.0	.015			227	3.5	21.6	74.9			
	Post	249	0.8	13.7	57.4	28.1				243	5.8	21.8	72.4			
	A	119		9.2	54.6	36.1	<.001	B:C	.013	118	3.4	17.8	78.8	.001	B:C	.026
	B	64	3.1	28.1	53.1	15.6		B:A	.000	63	14.3	30.2	55.6		B:A	.001
	C	57		7.0	66.7	26.3				53	1.9	22.6	75.5			
Sharing one's symptoms	Pre	228	0.9	9.2	47.4	42.5				228	5.7	21.9	72.4			
	Post	253	1.6	5.9	49.4	43.1				251	4.0	20.3	75.7			
	A	120	1.7	4.2	42.5	51.7	<.001	B:C	.003	119	2.5	15.1	82.4	.006		
	B	66	1.5	12.1	62.1	24.2		B:A	.001	66	7.6	30.3	62.1		B:A	.005
	C	58	1.7	1.7	44.8	51.7				57	3.5	17.5	78.9			
Explanations regarding symptoms	Pre	228	1.8	12.7	48.2	37.3				226	6.6	25.7	67.7			
	Post	251	3.2	14.3	49.0	33.5				250	10.0	23.6	66.4			
	A	119	2.5	11.8	42.0	43.7	.001	B:C	.047	118	8.5	23.7	67.8			
	B	66	4.5	22.7	54.5	18.2		B:A	.001	66	15.2	27.3	57.6			
	C	58	3.4	8.6	53.4	34.5				58	6.9	17.2	75.9			
Being told what is being done	Pre	228	0.4	15.4	44.7	39.5				228	6.1	28.5	65.4			
	Post	253	2.8	14.6	43.9	38.7				253	8.3	22.1	69.6			
	A	120		9.2	46.7	44.2	.008			120	5.0	20.0	75.0	.028		
	B	66	7.6	25.8	34.8	31.8		B:A	.006	66	16.7	24.2	59.1		B:A	.033
	C	58	3.4	10.3	44.8	41.4				58	5.2	20.7	74.1			

(Continues)

TABLE 2 (Continued)

4Ps' items	Experiences										Preference-based									
	Group	N	1%	2%	3%	4%	p	Pairwise comparisons	Adj. Sig	N	1%	2%	3%	p	Pairwise comparisons	Adj. Sig				
Learning about the plans	Pre	228	2.6	16.2	47.4	33.8				227	8.4	28.2	63.4							
	Post	251	4.0	22.3	39.0	34.7				251	10.0	27.9	62.2							
	A	120	2.5	17.5	41.7	38.3	.015	B:C	.041	120	8.3	27.5	64.2							
	B	64	10.9	29.7	31.3	28.1		B:A	.026	64	15.6	29.7	54.7							
	C	58		19.0	41.4	39.7				58	5.2	25.9	69.0							
Taking part in planning	Pre	225	10.2	32.9	41.8	15.1				225	7.6	32.0	60.4							
	Post	250	13.2	31.6	37.6	13.0				249	12.0	30.5	57.4							
	A	119	9.2	27.7	38.7	24.4	.001			118	9.3	28.0	62.7	.002	B:C	.010				
	B	65	20.0	44.6	23.1	12.3		B:A	.001	65	20.0	41.5	38.5		B:A	.003				
	C	57	12.3	22.8	52.6	12.3				57	10.5	24.6	64.9							
Phrasing personal goals	Pre	223	15.2	29.6	42.2	13.0				222	8.1	23.9	68.0							
	Post	247	13.8	31.6	41.7	12.5				246	8.5	25.2	66.3							
	A	120	11.7	27.5	45.8	15.0	.020			120	8.3	25.8	65.8	.002	B:C	.001				
	B	63	20.6	42.9	22.2	14.3		B:A	.028	62	16.1	32.3	51.6							
	C	56	10.7	23.2	57.1	8.9				56	1.8	17.9	80.4							
Learning to manage symptoms	Pre	227	3.1	18.1	55.1	23.8				226	7.5	31.9	60.6							
	Post	251	6.4	19.9	49.0	24.7				251	13.1	23.1	63.7							
	A	120	5.8	15.8	46.7	31.7	.013			120	10.8	21.7	67.5	.043						
	B	65	7.7	32.3	43.1	16.9		B:A	.011	65	21.5	26.2	52.3							
	C	57	5.3	12.3	59.6	22.8				57	10.5	19.3	70.2							
Managing treatment	Pre	228	9.6	15.4	47.8	27.2				227	7.0	25.1	67.8							
	Post	250	12.4	18.0	44.4	25.2				250	9.6	22.0	68.4							
	A	118	14.4	15.3	39.8	30.5				118	9.3	28.8	61.9							
	B	66	12.1	19.7	48.5	19.7				66	12.1	15.2	72.7							
	C	58	10.3	20.7	48.3	20.7				58	8.6	15.5	75.9							
Managing selfcare	Pre	225	7.1	23.1	43.6	26.2				225	6.7	24.0	69.3							
	Post	252	9.9	25.4	41.7	23.0				250	10.8	21.2	68.0							
	A	120	6.7	23.3	43.3	26.7				118	8.5	19.5	72.0							
	B	66	13.6	31.8	33.3	21.2				66	15.2	25.8	59.1							
	C	57	10.5	22.8	47.4	19.3				57	10.5	21.1	68.4							

Note: Experience ratings: 1 = not at all, 2 = to some extent, 3 = to a large extent, 4 = entirely. Preference-based participation levels: 0 = insufficient, 1 = fair, 2 = sufficient. Subgroups: A = received person-centered handover (PCH), B = No PCH—would have wanted PCH, C = No PCH—would have declined PCH. Statistics: pretest-posttest Mann-Whitney U; subgroups (A-C) Kruskal-Wallis, significant statistics followed by pairwise comparisons of the subgroups. Asymptotic significances (two-sided tests) are displayed and have been adjusted by the Bonferroni correction for multiple tests. Significance values of $p < .05$ are displayed.

unit as well as identifying nurses' attitudes, capability, and confidence to perform the handover, and motivate the need for change (McMurray et al., 2010).

The pretest–posttest design used, without a comparison group with different cohorts, had the advantage of being pragmatic in a complex healthcare organization. The same sample at pretest–posttest were not possible, due to the acute care setting. A similar hospital as a comparison group, or a cluster-level randomization would have given the study a more robust design, preventing selection bias. The latter had to be ruled out due to the units' insistence on choosing the timing of training and implementation. Another limitation is that the researchers initially relied on help from the hospital staff to include patients in the study but changed their approach to a member of the research team when it became clear that not everyone who was eligible could be identified. A brief daily handover, in this case only involving half of the unit's patients, may not be enough to identify an impact on patient participation. Due to the weakness of the design and the response rate being low, the results should be interpreted with caution.

Linking evidence to action

- Most patients want to be present at PCH; therefore, nurses should not hesitate to invite all patients.
- Nurses should be aware of patients' preferences regarding PCH and act accordingly, as that could contribute to more sufficient patient participation.
- Nurses need to become more aware that not acting according to patients' preferences regarding PCH, that is, not inviting patients who want to be present to PCH, could contribute to more insufficient patient participation.
- Further studies are needed to capture what aid nurses would request in identifying and acting in alignment with patient preferences.

CONCLUSION

PCH is a promising method to enhance the experience of patient participation and a more sufficient preference-based participation for patients whose willingness to be present at PCH was recognized. Further studies are needed to capture what aid nurses would want in identifying and acting in alignment with patient preferences. Despite the use of an implementation framework, the need for facilitation might have been underestimated, as implementing a new routine in a complex healthcare context is a challenge.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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