

Patients experience more support, information and involvement after first-time hospital accreditation: a before and after study in the Faroe Islands

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Abstract

Background: The impact of hospital accreditation on the experiences of patients remains a weak point in quality improvement research. This is surprising given the time and cost of accreditation and the fact that patient experiences influence outcomes. We investigated the impact of first-time hospital accreditation on patients' experience of support from health-care professionals, information and involvement in decisions.

Objective: We aimed to examine the association between first-time hospital accreditation and patient experiences.

Methods: We conducted a longitudinal study in the three Faroese hospitals that, unlike hospitals on the Danish mainland and elsewhere internationally, had no prior exposure to systematic quality improvement. The hospitals were accredited in 2017 according to a modified second version of the Danish Healthcare Quality program. Study participants were 18 years or older and hospitalized for at least 24 h in 2016 before or 2018 after accreditation. We administered the National Danish Survey of Patient Experiences for acute and scheduled hospitalization. Patients rated their experiences of support, information and involvement in decision-making on a 5-point Likert scale. We calculated individual and grouped mean item scores, the percentages of scores ≥ 4 , the mean score difference, the relative risk (RR) for high/very high scores (≥ 4) using Poisson regression and the risk difference. Patient experience ratings were compared using mixed effects linear regression.

Results: In total, 400 patients before and 400 after accreditation completed the survey. After accreditation patients reported increased support from health professionals; adjusted mean score difference (adj. mean diff.) = 1.99 (95% confidence interval (CI): 1.89, 2.10), feeling better informed before and during the hospitalization; adj. mean diff. = 1.14 (95% CI: 1.07; 1.20) and more involved in decision-making; adj. mean diff. = 1.79 (95% CI: 1.76; 1.82). Additionally, the RR for a high/very high score (≥ 4) was significantly greater on 15 of the 16 questionnaire items. The greatest RR for a high/very high score (≥ 4) after accreditation, was found for the item 'Have you had a dialogue with the staff about the advantages and disadvantages of the examination/treatment options available?'; RR = 5.73 (95% CI: 4.51, 7.27).

Conclusion: Hospitalized patients experienced significantly more support from health professionals, information and involvement in decision-making after accreditation. Future research on accreditation should include the patients' perspective.

Key words: accreditation of hospitals, benchmarking, surveys, patient satisfaction, patient experiences, shared decision-making, patient-provider communication/information

Introduction

The impact of hospital accreditation on patients' experiences remains poorly understood in quality improvement research [1, 2]. This is surprising given the amount of time and money spent on accreditation in times that require strict prioritization

of constrained resources to achieve the best for patients [3]. Accreditation has been associated with shorter length of stay [4, 5] and lower mortality [6, 7]—both valid dimensions of the quality of hospital care, but accreditation programs do not always include the perspective of patients.

A notable exception to the scarcity of patient-centered accreditation research is the study of patients' experiences [2, 8–15]. These experiences offer insight into patients' satisfaction with staff and care. Moreover, they illustrate expectations concerning hospitalization, treatment and communication with health-care professionals. However, it has proven difficult to document clear effects of accreditation on the experiences of patients. Four recent studies found no relationships between accreditation and patient satisfaction [8–11] and another was inconclusive [2]. Most of these studies were cross sectional, comparing accredited with non-accredited hospitals [10, 11] or hospitals with different accreditation status [8]. The main outcomes were recommendation rate of a hospital after discharge [9, 11] or ratings of service quality [8, 10]. Yet, cross-sectional designs only permit a momentary, snapshot picture of the complex changes of accreditation. Furthermore, these studies did not focus on patients' experiences in relation to their own illness and treatment during hospitalization.

We propose patients' experience of communication, involvement and participation in decisions as a focus for studying the effects of hospital accreditation on patients. Experience is strongly influenced by communication between patients and clinicians [16]. Tailored and effective communication has been found to reduce the numbers of examinations before diagnosis and initiation of treatment [16, 17]. Also, support from staff helps patients to cope with difficult and complicated processes during hospitalization [18]. Importantly, patients who experience being informed and involved in decisions about their health more often adhere to recommendations, treatment and follow-up [19, 20]. Thus, communication not only largely determines patient experience, but can also have an impact on outcomes [20].

The Faroe Islands present a unique opportunity to study accreditation under conditions of very limited quality improvement experience. Quality improvement programs had not taken place before first-time hospital accreditation in February 2017. Thus, our aim was to investigate the changes in patient experiences after first-time hospital accreditation in this setting. Based on past literature we hypothesized that patients treated in hospitals after they had undergone accreditation would experience more support, information and involvement in decision-making during hospitalization compared to patients treated in the hospitals before accreditation.

Methods

Context

The Faroe Islands in the North Atlantic Ocean have a population of around 53 000 [21]. They are an independent territory of the Kingdom of Denmark and are classified as a high-income country [22]. The three public hospitals are The National Hospital, Klaksvik hospital and Suderø hospital. Faroese citizens have free access to treatment in hospitals.

Study design

We designed a before and after study of patients' experiences in connection with the first-time accreditation of the Faroese hospitals. We used two validated Danish questionnaires for acute and scheduled hospitalizations [23, 24]. Since

the year 2000, the questionnaires have been used regularly for assessing patients' experiences of Danish health care [25].

Intervention

The intervention was first-time hospital accreditation in the three hospitals. The accreditation was performed by the Danish Institute for Quality and Accreditation in Healthcare [26] using a modified second version of the Danish Healthcare Quality program (DDKM) [27]. The accreditation program was modified collaboratively with local stakeholders to ensure that the model was fit for purpose in the Faroese health-care system. The modified DDKM comprised 76 hospital standards. The hospitals were accredited by a team of experienced and trained Danish surveyors who assessed whether the hospitals were compliant with all standards through observations, interviews with staff and review of documents and medical records. All three hospitals voluntarily participated and achieved accreditation in 2017.

Patient inclusion

We included patients 18 years or older who were hospitalized for at least 24 h in one of the Faroe Islands hospitals during 7 July to 8 October 2016 (before accreditation) and 16 June to 21 August 2018 (after accreditation). They had to understand spoken and written Faroese, Danish or English. Patients who were not able to sign informed consent and/or were too ill were excluded.

Patients were identified through daily review of all patient lists at the respective departments. First, the lists were screened against the inclusion criteria. Then patients who met them were discussed with the responsible clinicians. Staff considered without being aware of the content of the questionnaire whether a patient would be able to understand and sign informed consent, e.g. not have dementia. Then the first author included all remaining patients on the respective ward. This process was repeated until 400 patients had responded before and after accreditation. All eligible patients received a brief description of the project and if they wished to participate, they signed a letter of informed consent.

Questionnaires

We used the questionnaires for acute and scheduled hospitalizations of the National Danish Survey of Patient Experiences [24]. These questionnaires have been used in annual patient satisfaction surveys for more than 20 years. To follow the logic of the questionnaires, patients responded to all 40 items. In the analysis for this study, we included three dimensions with 16 items that the accreditation model reasonably could have affected. Items were rated on a 5-point Likert scale ranging from 1 (Not at all) to 5 (To a very high degree). High scores indicated a higher degree of satisfaction with care during hospitalization. Scores were calculated for each item and for each dimension of care. As the last items for both acute and scheduled hospitalization 'Do you to an appropriate extent participate in making decisions about your examination/treatment?' only included the ability to respond 'yes' or 'no', we recoded the answer 'yes' equal to a 5 point and the answer 'no' equal to a 1 point on the 5-point Likert scale, thus preserving item weight when summarizing the corresponding dimension. The answers 'do not know' and 'not relevant to me' were not included in any of the analyses. See Appendix 1

for items included for scheduled hospitalization, Appendix 2 for acute hospitalization and Appendix 3 for a juxtaposition of questionnaire items and accreditation standards.

Data collection

The data collector (M.D.B.) completed both data collections sitting next to the patient's bed or with the patient in a waiting area or room. Dimensions and items were read out loud and all responses were recorded in the questionnaire. Each patient spent approximately 40 min completing a questionnaire. All data from the questionnaire survey were collected on paper and subsequently entered into a REDCap database [28]. Data from all 800 patients were entered twice by different researchers to ensure accuracy of data transfer from paper to the database.

Statistical analysis

We used StataSE, version 14.2. (StataCorp, 2015. College Station, TX: StataCorp LLC) to analyze all the data. Two-sided tests with a significance level of 5% were used in all analyses.

Descriptive statistics were presented as frequencies and percentages for categorical variables and as means, min/max, median and interquartile range (IQR) for continuous variables, where appropriate. All characteristics were stratified by before and after accreditation.

The score of each item and dimension was presented as a mean with 95% confidence interval (CI) and as percentages for scores ≥ 4 . The score of each dimension was calculated as the average over included items. To account for possible heterogeneity between hospitals, the before and after accreditation adjusted mean difference was estimated with mixed effect linear regression with a random intercept at hospital level.

We estimated the relative risk (RR) with 95% CI for a score ≥ 4 for each item and each dimension with Poisson regression with robust variance. Results from the RR analyses are available in Appendix 4 and 5. The risk difference (RD) with 95% CI for a score ≥ 4 for each item and all dimensions was calculated using linear regression. In all analyses, we used mixed effect models with a random intercept at hospital level to adjust for within hospital dependence. To account for confounding, we included age, sex, level of education, previous hospitalization and type of hospitalization in the calculation of adjusted RR and RD as well as mean difference analyses.

Results

Patient characteristics

During the inclusion period before accreditation (27 July 2016 to 8 October 2016) 465 patients and after accreditation (16 June 2018 to 21 August 2018) 448 patients fulfilled the inclusion criteria. During both periods 400 patients participated corresponding to a participation rate of 89% (800/903). Before accreditation, 65 patients were unable to participate due to their medical condition, one refused and one was a minor. After accreditation 48 patients were unable to participate, two were minors and five refused.

The characteristics of the patients before and after accreditation were very similar, with only slightly more men (52%)

Table 1 Patient and hospital characteristics before and after first-time accreditation

	Before accreditation 2016	After accreditation 2018
Characteristic	N = 400	N = 400
Sex, n (%)		
Male	208 (52)	199 (50)
Female	192 (48)	201 (50)
Age (years)		
Age, median (IQR)	69 (57, 78)	70 (60, 80)
<50 years, n (%)	73 (18)	69 (17)
50–75 years, n (%)	203 (51)	183 (46)
>75 years, n (%)	124 (31)	148 (37)
Hospitalization time before inclusion (days)		
Median (IQR)	1 (1, 3)	2 (1, 3)
Mean (min, max)	4 (1, 137)	4 (1, 122)
Previous hospitalization, n (%)		
Yes, one previous hospitalization	67 (17)	70 (18)
Yes, several previous hospitalizations	173 (43)	114 (29)
No previous hospitalization	158 (40)	213 (53)
Cohabitant status, n (%)		
Cohabitant	307 (77)	291 (73)
Living alone	93 (23)	109 (27)
Employment status, n (%)		
Working	136 (34)	137 (34)
Not working	264 (66)	263 (66)
Education level, n (%)		
Primary school	181 (45)	157 (39)
College student	30 (8)	36 (9)
≤ 2 years	53 (13)	50 (13)
≤ 3 –4 years	126 (32)	136 (34)
≥ 5 years	10 (3)	21 (5)
Hospitalization, n (%)		
Acute	325 (81)	329 (82)
Scheduled	75 (19)	71 (18)
Department, n (%)		
Medical	196 (49)	194 (49)
Surgical	145 (36)	125 (31)
Mixed (surgical/medical)	59 (15)	81 (20)
Room type during hospitalization, n (%)		
Single room	89 (22)	112 (28)
Multibed room	310 (78)	288 (72)
Treating hospital, n (%)		
The National hospital	341 (85)	319 (80)
Klaksvik hospital	34 (9)	49 (12)
Suderø hospital	25 (6)	32 (8)

than women (48%) before accreditation versus (50%) men and (50%) women after accreditation. Most hospitalizations were acute during both surveys (81% versus 82%), of which more patients before accreditation had been admitted more than once (43% versus 29%), while fewer before accreditation had not been admitted previously (40% versus 53%). On average, patients were included in the study after 4 days in the hospital (Table 1).

Changes in dimension score of staff support, information and patient involvement after first-time hospital accreditation

Patients reported improved experiences on all three dimensions 'Support from the staff during hospitalization', 'Information before and during hospitalization' and

Table 2 Dimensions of patient experience scores during hospitalization before and after first-time accreditation

	Before accreditation 2016		After accreditation 2018		Adjusted mean difference ^a	95% CI
	Unadjusted mean	95% CI	Unadjusted mean	95% CI		
Support from the staff during hospitalization	1.19	1.82, 1.99	3.91	3.82, 3.99	1.99	1.89, 2.10
Information before and during hospitalization	3.09	3.04, 3.15	4.23	4.18, 4.29	1.14	1.07, 1.20
Patient involvement in decision-making	2.64	2.56, 2.73	4.43	4.37, 4.49	1.79	1.76, 1.82

^aAdjusted for cluster effect at hospital level, age, sex, level of education, previous hospitalizations and type of hospitalization.

Table 3 Highly positive (≥ 4) dimensions of patient experience during hospitalization before and after first-time accreditation

	Before accreditation 2016		After accreditation 2018		Adjusted RD ^b	
	Dimension score ≥ 4		Dimension score ≥ 4			
	N ^a	%	N	%	%	95% CI
Support from the staff during hospitalization	3	1	160	40	39	36, 42
Information before and during hospitalization	8	2	277	57	54	50, 58
Patient involvement in decision-making	35	9	284	72	63	59, 66

^aPatients answering 'not relevant to me' or 'do not know' are not included.

^bRD, adjusted for cluster effect at hospital level, age, sex, level of education, previous hospitalizations and type of hospitalization.

'Patient involvement in decision-making' after accreditation (Table 2). They experienced a higher level of support from staff with mean scores of 1.19 before and 3.91 after. Similarly, they reported having been better informed before and during admission as well as having been more involved in decisions. The average score for information increased from 3.09 to 4.23 and for involvement in decisions from 2.64 to 4.43 after accreditation (Table 2).

Changes in positive dimension scores ≥ 4 after first-time hospital accreditation

Positive ratings of 4 and 5 consistently improved (Table 3). The percentage of patients reporting having been supported rose from 1% to 40% with an adjusted RD of 39% for experiencing a high/very high level of support after accreditation. Changes on the two other dimensions were even more accentuated. Positive ratings of perceived information from staff increased from 2% to 57% and involvement in decisions from 9% to 72% with a RD of, respectively, 54% and 63% (Table 3).

Changes in items scores after first-time hospital accreditation

Experience scores were rated significantly higher by patients treated at the accredited hospitals (Table 4). Only the item 'Were you informed before your admission about what would happen during your admission?' did not improve significantly.

Most items increased from 'a small degree' and 'some extent' to 'a high degree' and 'a very high degree'. The two items with the largest change in score were 'Have you had conversations with the staff about how to best handle your illness/conditions?' and 'Have you had a dialogue with the

staff about the advantages and disadvantages of the examination/treatment options available?'. Both items more than doubled from 1.62 and 1.52 before accreditation to 3.86 and 4.31 after (Table 4).

Changes in positive item scores ≥ 4 after first-time accreditation

At item level, ratings increased significantly on the positive end of the Likert scale in 15 of the 16 items (Table 5). Two items in Dimension 1 (Support from the staff during hospitalization) 'Have the staff given you the opportunity to participate in decisions about your examination/treatment?' and 'Have you had conversations with the staff about how to best handle your illness/conditions?' had an adjusted RD of, respectively, 74% and 55% after accreditation. Likewise, in Dimensions 2 (Information before and during hospitalization) and 3 (Patient involvement in decision-making), the items 'Have you received information about the effects and side effect of the medication (including painkillers) you received while you were hospitalized?', 'Did the staff inform you about the examination/treatment options that existed before you received your examination/treatment?', 'Have you had a dialogue with the staff about the advantages and disadvantages of the examination/treatment options available?' and 'Do you to an appropriate extent participate in making decisions about your examination/treatment?' increased from 17%, 31%, 14% and 44% of high scores to 84%, 90%, 83% and 98%, respectively, corresponding to adjusted RDs of, respectively, 67%, 58%, 68% and 55% (Table 5).

Discussion

Statement of principal findings

We found that hospitalized patients after accreditation felt better informed before and during hospitalization, more

Table 4 Items of patient experience scores during hospitalization before and after first-time accreditation, ordered by dimensions

Dimension/Item	Before accreditation 2016			After accreditation 2018			Adjusted	
	Unadjusted			Unadjusted				
	N ^a	Mean	95% CI	N	Mean	95% CI	Mean difference ^b	95% CI
SUPPORT FROM STAFF DURING HOSPITALIZATION								
Have the staff asked about your own experiences with your illness/condition?	393	2.02	1.89, 2.15	389	3.75	3.64, 3.85	1.73	1.65, 1.81
Have the staff given you the opportunity to participate in decisions about your examination/treatment?	339	1.76	1.62, 1.89	192	4.32	4.20, 4.44	2.54	2.46, 2.62
Have the staff (after your consent) given your relatives the opportunity to participate in decisions about your examination/treatment?	78	3.20	2.88, 3.51	114	4.47	4.34, 4.61	1.21	0.96, 1.45
Have you had conversations with the staff about how to best handle your illness/condition?	381	1.62	1.51, 1.74	374	3.86	3.74, 3.97	2.23	2.12, 2.34
INFORMATION BEFORE AND DURING HOSPITALIZATION								
Were you informed before your admission about what would happen during your admission? ^c	75	3.63	3.44, 3.81	70	4.63	4.50, 4.76	0.99	0.85, 1.13
Is the verbal information you received during your hospitalization understandable?	400	3.84	3.79, 3.89	400	4.53	4.47, 4.59	0.68	0.63, 0.73
Did you get answers to the questions you asked during your admission?	375	3.66	3.58, 3.74	386	4.44	4.38, 4.50	0.79	0.74, 0.83
Does the information you have received from different staff in the department agree? ^d	324	3.72	3.65, 3.78	325	4.29	4.22, 4.35	0.56	0.51, 0.61
Have you received information about the effects and side effects of the medication (including painkillers) you received while you were hospitalized?	370	1.93	1.81, 2.04	357	4.18	4.08, 4.28	2.25	2.12, 2.39
Have you been continuously informed about the results of your treatment/examination?	398	2.73	2.60, 2.86	382	3.90	3.78, 4.02	1.17	1.00, 1.33
Have you been continuously informed about what is going to happen? ^d	325	2.55	2.41, 2.70	324	3.90	3.78, 4.02	1.35	1.18, 1.52
PATIENT INVOLVEMENT IN DECISION-MAKING								
Did the staff inform you about the examination/ treatment options that existed before you received your examination/treatment?	385	2.14	2.00, 2.28	371	4.43	4.35, 4.52	2.29	2.26, 2.32
Have you had a dialogue with the staff about the advantages and disadvantages of the examination/treatment options available?	377	1.52	1.41, 1.63	210	4.31	4.18, 4.45	2.75	2.62, 2.88
Have you been able to talk to the staff about concerns regarding your illness or your examination/course of treatment?	136	3.17	2.95, 3.39	77	3.86	3.56, 4.16	0.60	0.51, 0.69
Is your examination/treatment adapted to your situation?	396	3.82	3.76, 3.88	385	4.39	4.33, 4.46	0.57	0.54, 0.59
Do you to an appropriate extent participate in making decisions about your examination/ treatment?	345	2.75	2.54, 2.96	248	4.94	4.87, 4.99	2.20	2.07, 2.33

^aPatients answering 'not relevant to me' or 'do not know' are not included.

^bAdjusted for cluster effect at hospital level, age, sex, level of education, previous hospitalizations and type of hospitalization.

^cQuestion only includes patients scheduled for hospitalization.

^dQuestion only includes patients for acute hospitalization.

involved in decisions and more supported by health professionals. To the best of our knowledge, this is the first study examining the impact of first-time hospital accreditation on patient experiences in a context never previously subjected to national systematic quality improvement. The improvements were significant and consistent across all items, suggesting that first accreditation had a positive impact on the care experience by hospitalized patients in the Faroese hospitals.

Strengths and limitations

A strength of this study is that hospitals of the Faroe Islands had never engaged in systematic national quality

improvement before. Also, no other organizational changes or quality improvement measures were implemented during the study. This limits the risk of confounding from competing quality improvement interventions that today are omnipresent in hospitals. Second, data were collected prospectively during hospitalization limiting the risk of recall bias. All data from the 800 participants were collected at the bedside enabling patients with hearing or visual disabilities to participate and to assure data completeness. Third, we included a representative sample of a general hospital population before and after accreditation which increases the generalizability of our results. Fourth, we had a high participation rate of 89%, thereby minimizing non-response bias.

Table 5 Highly positive (≥ 4) items of patient experience during hospitalization before and after first-time accreditation, ordered by dimensions

Dimension/Item	Before accreditation 2016		After accreditation 2018		Adjusted RD ^b	
	Patients score ≥ 4		Patients score ≥ 4			
	N ^a	%	N	%	%	95% CI
SUPPORT FROM STAFF DURING HOSPITALIZATION						
Have the staff asked about your own experiences with your illness/condition?	85	22	222	57	35	30, 41
Have the staff given you the opportunity to participate in decisions about your examination/treatment?	55	16	175	91	74	70, 78
Have the staff (after your consent) given your relatives the opportunity to participate in decisions about your examination/treatment?	44	56	107	94	37	32, 43
Have you had conversations with the staff about how to best handle your illness/condition?	51	13	256	69	55	53, 57
INFORMATION BEFORE AND DURING HOSPITALIZATION						
Were you informed before your admission about what would happen during your admission? ^c	57	14	67	17	3	-1, 67
Is the verbal information you received during your hospitalization understandable?	333	83	387	97	13	10, 16
Did you get answers to the questions you asked during your admission?	288	77	369	96	19	17, 21
Does the information you have received from different staff in the department agree? ^d	245	61	304	77	15	9, 21
Have you received information about the effects and side effects of the medication (including painkillers) you received while you were hospitalized?	62	17	299	84	67	60, 74
Have you been continuously informed about the results of your treatment/examination?	177	45	270	71	26	19, 33
Have you been continuously informed about what is going to happen? ^d	115	29	215	54	25	15, 36
PATIENT INVOLVEMENT IN DECISIONS-MAKING						
Did the staff inform you about the examination/treatment options that existed before you received your examination/treatment?	212	31	333	90	58	56, 59
Have you had a dialogue with the staff about the advantages and disadvantages of the examination/treatment options available?	53	14	174	83	68	63, 72
Have you been able to talk to the staff about concerns regarding your illness or your examination/course of treatment?	85	63	59	77	12	11, 13
Is your examination/treatment adapted to your situation?	341	86	363	94	8	7, 9
Do you to an appropriate extent participate in making decisions about your examination/treatment?	151	44	244	98	55	52, 58

^aPatients answering 'not relevant to me' or 'do not know' are not included.

^bRD, adjusted for cluster effect at hospital level, age, sex, level of education, previous hospitalizations and type of hospitalization.

^cQuestion only includes patients scheduled for hospitalization.

^dQuestion only includes patients for acute hospitalization.

A limitation of our study is the lack of a control group. However, a controlled design was not feasible in the three hospitals as they did not have comparable catchment areas, or size or level of specialization. Another limitation is that the questionnaires were only validated for differential function and criterion validity [23]. However, they were available in Danish and thoroughly and repeatedly tested during years of use in the Danish health-care system [24]. Finally, we could not stratify our analyses for diagnoses. The inclusion of this information could have compromised the anonymity of the study participants in this comparatively small population. However, we find little reason to assume that diagnoses should have differed before and after accreditation given that all other demographic parameters were largely similar.

Interpretation within the context of the wider literature

The few prior studies of the impact of hospital accreditation on patient experiences showed conflicting results. Two studies found a positive impact [12, 13], four studies no impact [8–11], and the only systematic review was inconclusive [2]. The majority of the studies with no impact applied cross-sectional designs [8, 10, 11] that might be less suitable for complex longitudinal organizational change processes such as accreditation. The studies looking at recommendation rate [9, 11] found no association to accreditation which is likely because the outcome did not include patient-related factors such as support and patient involvement which can be directly affected by accreditation, which we assessed in our study.

The only other study that assessed patient outcomes with a longitudinal design, also found improvements of patient experiences after first-time hospital accreditation in a hospital in Hong Kong [12]. Consistent with our findings, accreditation was associated with an overall improvement of several dimensions of the care experience including ‘emotional support’, ‘respect for patients’ preferences’ and ‘information and education’. Moreover, changes in patients’ experiences also seemed to be sustainable with improvements as long as 15 months post accreditation [12]. Unfortunately, the results from Andres *et al.* only cover one Hong Kong hospital and do not clarify previous subjection to systematic quality improvement activities. Notwithstanding these methodological challenges, both ours and the study from Hong Kong illustrate the importance of patient experience as a study outcome for the evaluation of hospital accreditation.

Implications for policy, practice and research

Our study suggests that accreditation in hospitals can improve patients’ experiences. In future, authorities responsible for accreditation would be well advised to include patient feedback and to collaborate with patients to update standards so that their perspectives are included in standards and accreditation models. This would support accreditation and standards to remain relevant to patients and an important element in quality improvement activities.

The development of valid questionnaires linked to accreditation capturing important elements of patient experiences related to all phases of hospitalization can be an important and useful complement to current accreditation models. Knowledge of patients’ experiences would not only help to improve accreditation but also practice. In addition, future research on accreditation should examine the patient perspective to provide a better understanding of how accreditation affects patients and their treatment.

Conclusions

First-time hospital accreditation, in a setting without prior or concurrent national quality improvement activities and in a representative population of hospitalized patients, was associated with significant and consistent long-term improvements in patient experience. Patients felt more supported, informed and involved in decisions regarding their hospitalization after accreditation.

Supplementary material

[Supplementary material](#) is available at *International Journal for Quality in Health Care* online.

Acknowledgements

The authors thank Jens Godik Højen from the administration and Gunnvá Guttesen from the Medical Centre at the National Hospital, for cooperation on the Faroese processor agreements. We would also like to thank Bjørg Krett Hansen for double entry of all data, as well as Tora Róin, Ingrid

Petersen and Lisbet Jacobsen from the Faroese hospitals for organizing access to all departments.

Funding

This study was supported by Aase and Ejnar Danielsens Foundation, Denmark (Grant No. 20-000044), the Department of Anesthesiology and Intensive Care Medicine, Gentofte Hospital, Denmark, the Graduate School of Health, Aarhus University, Denmark, the Department of Clinical Epidemiology, Aarhus University Hospital, Denmark and The National Hospital in the Faroe Islands.

Contributorship

All authors were responsible for the study design and interpreting the results. Data were collected by M.D.B., who drafted the manuscript. All statistical analyses were performed by M.D.B. in collaboration with senior statistician J.B.V. All authors agreed on the final manuscript.

Ethics and other permissions

The study was approved by the Danish (J # 2012-58-0004) and the Faroese (J # 16/00135-12) Data Protection Agency. According to Danish and Faroese law, this study did not need ethics approval.

Data availability statement

According to Danish law, data from this study cannot be shared due to the high risk of identification and the privacy of the individuals included.

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