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A Practical Method for Monitoring Patient Safety Culture: Applying Net Promoter Score and Lot Quality Assurance Sampling

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ABSTRACT

Rationale: Patient safety culture is a key component of health care quality, yet its integration into routine monitoring systems is often limited. Existing assessments tend to focus on cross-sectional snapshots rather than providing practical, process-level information that can support continuous improvement in integrated health care organisations.

Aims and Objectives: To design and pilot a practical method for monitoring patient safety culture across key care processes within an integrated health care area, using Net Promoter Score (NPS) and Lot Quality Assurance Sampling (LQAS) to identify strengths, weaknesses, and improvement priorities.

Method: A descriptive cross-sectional study was conducted in six care processes (primary care, outpatient consultation, hospitalisation, emergencies, surgery, and supportive care). Patient safety culture was assessed using validated AHRQ instruments (HSOPS and MOSPS), administered via structured telephone interviews. NPS was used to summarise favourable and unfavourable perceptions into a single polarity score. LQAS was applied to classify each process into acceptable or unacceptable results and to identify priority improvement lots. A process-level monitoring plan was developed based on dimensions with critical NPS values and rejected lots.

Results: A total of 126 professionals participated (88% response rate). Safety-culture perceptions varied substantially across processes. 'Teamwork within units' emerged as a consistent strength, while 'work pressure and pace' and 'staffing' were frequent concerns. NPS showed 93% concordance with AHRQ classifications. LQAS identified 132 rejected lots (49.5%), including 25 (9.4%) flagged as high-priority weaknesses.

Conclusion: The combined use of NPS and LQAS offers a practical, scalable approach for monitoring patient safety culture at the process level. This method supports prioritisation, resource allocation, and the integration of safety-culture information into routine governance and improvement activities.

1 | Introduction

Patient safety culture is a core component of health care quality and is associated with better care outcomes [1]. The greatest challenge in achieving a safer health care system lies in shifting the perception that clinical errors and risks threaten professional prestige toward recognising them as opportunities for learning and improvement [2]. This requires cultivating a cultural environment that encourages transparency and enables open discussions about errors, risk analysis, and incident review, with the aim of strengthening both individual and organisational learning [3].

However, recognising the importance of an appropriate safety culture within a health care organisation is not enough. To enhance it, it is also necessary to measure it systematically [4]. Such measurement makes it possible to identify strengths and weaknesses and to act accordingly. Despite the availability of validated tools for assessing safety culture, their integration into routine quality-monitoring systems remains inconsistent, particularly in integrated health care settings [5].

Although assessments are widely used, there is limited evidence on how to incorporate them into continuous improvement frameworks, as most studies focus on cross-sectional evaluations or isolated interventions rather than embedding safety-culture monitoring into organisational processes.

To address this gap, this study explores the feasibility and utility of designing and piloting a safety-culture monitoring plan within an integrated health care organisation. By combining Net Promoter Score (NPS) and Lot Quality Assurance Sampling (LQAS), the proposed approach aims to generate process-specific, easy-to-interpret information that can support prioritisation, resource allocation, and the incorporation of safety culture into routine governance and improvement activities.

2 | Methods

The study was conducted in Area I, Murcia-Oeste (Region of Murcia, Spain), a public integrated health care organisation serving 269,627 inhabitants. Its structure includes both primary care and hospital services, with the hospital acting as the reference centre for the Murcia Region. Patients interact with our organisation through various processes, with the following considered key care processes: primary care, outpatient consultation, hospitalisation, emergencies, surgery, and clinical-diagnostic supportive care.

A descriptive cross-sectional study was undertaken to explore the elements associated with safety culture among professionals. Based on the findings, a monitoring plan was designed with the aim of assessing safety-culture levels in each care process and identifying opportunities for improvement.

The assessment included fixed, interim, substitute, and resident health care professionals working in the selected care processes during October 2024. The sampling frame consisted of all professionals listed in Table 1. Random sampling was performed using LQAS. For each process, a randomly ordered list of professionals was generated, and telephone interviews were conducted until 21 valid responses (one LQAS lot) were obtained. This ensured representativeness across professional categories and care settings.

Two validated instruments developed by the Agency for Health care Research and Quality (AHRQ) were used: the Medical Office Survey on Patient Safety Culture for primary care ([6], and the Hospital Survey on Patient Safety Culture for the remaining processes [7]. Both instruments have validated Spanish versions [8, 9] and consist of Likert-scale items covering twelve dimensions of patient safety culture, along with a global assessment item (0–10 scale).

Following AHRQ methodology, a dimension or item was classified as a strength when $\geq 75\%$ of responses were positive (values 4–5 on 5-point scales). For negatively phrased items, $\geq 75\%$ negative responses (values 1–2) indicated strength. Conversely, weaknesses or improvement opportunities were defined as $\geq 50\%$ negative responses for positively phrased items, or $\geq 50\%$ positive responses for negatively phrased ones.

To facilitate interpretation, the study employed NPS, originally described by Reichheld [10], to summarise perceptions into a single polarity value. Responses classified as 'strength' were subtracted from those classified as 'weakness' and expressed as a percentage of total responses, producing a score ranging from −100 (all weakness responses) to +100 (all strength responses). Values ≥ 66.6 were considered 'strength', 50–66.5 'acceptable', 50 to 0 'low risk', 0 to −33.3 'high risk', and < -33.3 'weakness'. These categories supported simple communication of results and the prioritisation of improvement efforts.

To identify opportunities for improvement, LQAS was applied to each safety-culture dimension. In this approach, a lot is accepted when its responses meet predefined quality criteria and rejected when they do not. For this study, the standards were based on AHRQ conventions: at least 75% of responses classified as 'strength' and no more than 25% as 'weakness'.

TABLE 1 | Number and types of professionals eligible to participate in the study.

Process	Setting	Professionals targeted	Staff count[a]
Primary care	Primary care teams	Doctors, dentists, medical residents, nurses, physiotherapists, midwives, nursing assistants, dental hygienists	634
Hospital	Hospitalisation units	Doctors, medical residents, nurses, midwives, nursing assistants	2692
Consultations	Hospital consultation area and related structures	Doctors, medical residents, nurses, physiotherapists, midwives, nutritionists, and nursing assistants	1824
Emergencies	Emergency department entrances. Medical shifts	Doctors, medical residents, nurses, midwives, nursing assistants	1646
Surgery	Surgical areas. Surgical services. Recovery Room	Doctors, medical residents, nurses, midwives, nursing assistants	1037
Supportive care	Laboratory area, imaging diagnosis, pharmacy, and pathology	Doctors, medical residents, nurses, midwives, and nursing assistants	514

[a]A single staff member can participate in more than one process.

Thresholds were set at 50% for both indicators. Each lot consisted of 21 responses; a lot was accepted if it contained ≥ 12 'strength' responses and ≤ 12 'weakness' responses (type I error 5%; power 80%). Because six care processes were assessed, the total sample required was 126 responses, and 267 lots were evaluated. Lots that failed to meet the acceptance criteria were considered improvement opportunities, and those rejected due to 'weakness' were prioritised as high-concern areas.

Structured telephone interviews were conducted by trained personnel using randomly ordered lists for each care process. No professional was included in more than one list. Calls were made at different times of the day to accommodate clinical workloads, and interviews lasted approximately 10–12 min. Participation was voluntary, and professionals could decline or discontinue at any time without explanation. To ensure anonymity, no names or identifiable information were recorded; each response was linked to a randomly assigned code. Interviewers were trained to maintain neutrality and avoid influencing responses. For the five hospital processes that used the same instrument, the applicable process was clearly indicated at the start of each interview. Because the survey was administered by telephone with mandatory completion of each item, no missing data were generated. This eliminates any ambiguity in the handling of non-responses and ensures that all subsequent classifications reflect complete item-level data.

The study was conducted as part of the institutional programme 'Analysis of safety rounds in Area I Murcia-Oeste' (Registry NE-2024-04-HCUVA). The Research Ethics Committee (CEIm) of Hospital Clínico Universitario Virgen de la Arrixaca reviewed the study documentation and formally determined that the project did not require further ethical evaluation, as no personal identifiers were collected, and the procedures fell under institutional quality-improvement activities.

Based on the results of the safety culture assessment, a monitoring plan was developed to track key indicators over time. The selection of indicators was guided by the dimensions with the most critical NPS scores and the highest number of rejected lots in the LQAS analysis.

To ensure organisational relevance, the research team worked in collaboration with institutional quality- and patient-safety officers to define the indicators, their operational standards, and the recommended measurement frequency. Although the monitoring plan was not piloted during the study period, it was reviewed internally to confirm its feasibility and alignment with existing governance structures. The study included four key indicators: (1) dimensions of safety culture reaching the appropriate level, (2) dimensions below the unacceptable threshold, (3) overall assessment of patient safety, and (4) rejected lots for 'weakness'. Their technical specifications are detailed in Table 2.

Involvement was limited to feedback and dissemination. Preliminary results were shared with internal stakeholders—mainly clinical managers and institutional representatives—via structured meetings and follow-up emails. Their input informed the interpretation and refinement of the monitoring plan. No patient or public representatives were involved in design or data collection.

3 | Results

A total of 143 professionals were contacted, resulting in 133 successful connections (93%), of whom 126 completed the survey. This corresponds to a completion rate of 95% among those successfully contacted (126/133), and an overall response rate of 88% when considering all attempted contacts (126/143). No relevant differences in response patterns were observed between the six care processes included in the study.

NPS values differed across processes. Scores ranged from the 'acceptable' category in primary care (NPS = 55; 95% CI ± 5.6) to the 'low risk' category in emergencies (NPS = 19; 95% CI ± 5.2). At the dimension level, strengths were identified in all processes, with 'teamwork within units' appearing consistently as the most frequent strength. Primary care showed the highest number of strengths (six). Only one dimension was classified as a weakness ('work pressure and pace'), which also corresponded to primary care. All NPS values by dimension are summarised in Figure 1.

When comparing these results with those obtained using the AHRQ classification (≥ 75% positive for 'strength' and ≥ 50% negative for 'weakness'), overall concordance was 93%. Using AHRQ thresholds, 15 dimension-level classifications were obtained (13 strengths, 2 weaknesses), whereas the NPS-based classification yielded 14 (the same 13 strengths and a single weakness). The sole discrepancy occurred in the emergencies process within the 'staffing' dimension, which had an NPS value of −27 ('high risk') but also received 51.2% negative responses, meeting the AHRQ criterion for 'weakness'.

Using LQAS, 267 lots were evaluated across the six care processes. A total of 132 lots (49.5%) were rejected. The proportion of rejected lots varied across processes, from 67% in surgery (28 lots) to 28% in primary care (16 lots). Among these, 25 lots (9.4%) were rejected specifically due to 'weakness' and were therefore considered priority improvement opportunities. Surgery reported the highest number of such priority lots (7 lots; 17%), while consultations reported the lowest (2 lots; 5%). Detailed LQAS results by process and dimension are shown in Tables 3 and 4.

For the global patient safety item in the hospital survey, the average score was 8.0 (95% CI 7.9–8.1), corresponding to an NPS of 32. NPS values for this item ranged from 67 in consultations (mean 8.3; 95% CI 8.0–8.5) to 0 in supportive care (mean 7.8; 95% CI 7.6–8.0). In primary care, the corresponding global item in the MOSPS questionnaire received an NPS of −52 (mean 6.5; 95% CI 6.4–6.8).

Results for the monitoring-plan indicators are summarised in Table 2. None of the care processes met all four standards. Supportive care and primary care met three of the four indicators, whereas surgery did not meet any of them.

4 | Discussion

The study revealed varying perceptions of safety culture across different health care processes within the organisation. Some processes, such as 'consultation', exhibited strong safety culture perceptions, with an NPS of +67, suggesting that professionals perceive their environment as safe, collaborative, and conducive to high-quality care. This may be associated with more

TABLE 2 | Monitoring plan indicators and study results.

	Name	1. Dimensions of safety culture reaching the appropriate Level		2. Dimensions of safety culture below the unacceptable threshold		3. Overall assessment of patient safety		4. Rejected lots for 'weakness'	
Indicator	Formula	Number of safety culture dimensions with a point estimate of NPS equal to or greater than 50		Number of safety culture dimensions with a negative point estimate of NPS		NPS value		Percentage of lots rejected for 'weakness'	
	Type	Outcome		Outcome		Outcome		Outcome	
	Stratification	Process		Process		Process		Process	
	Standard	> 5		< 2		> 50		< 10%	
	Frequency	Biennial		Biennial		Biennial		Biennial	
	Source	Phone survey		Phone survey		Phone survey		Phone survey	
	Sample size	21		21		42		21	
	Clarifications	AHRQ questionaries (HOSP and MOSP) and their 12 dimensions are utilised. NPS calculation: $100 \cdot (S - W)/R$, where S = number of 'strenght' responses W = number of 'weakness' responses R = Total responses		AHRQ questionaries (HOSP and MOSP) and their 12 dimensions are utilised. NPS calculation: $100 \cdot (S - W)/R$, where S = number of 'strenght' responses W = number of 'weakness' responses R = Total responses		AHRQ questionaries. Questions #42 HOSP and #57 MOSP (Likert 11 items from 0 to 10) NPS calculation: $100 \cdot (S - W)/R$, where S = number of responses scoring over 8 W = number of responses scoring under 7 R = Total responses		AHRQ questionaries (HOSP and MOSP) Standard: ≤ 25% of 'weakness' responses Treshold: 50% Type I error, 5%; power, 80% Acceptance: ≤ 12 'weakness' responses	
2023 values[a]	Supportive care	4	✗	1	✓	67	✓	10	✓
	Consultations	1	✗	1	✓	14	✗	7	✓
	Hospital	1	✗	0	✓	43	✗	5	✓
	Surgery	1	✗	3	✗	38	✗	17	✗
	Emergency	1	✗	3	✗	32	✗	10	✓
	Primary care	6	✓	1	✓	-52	✗	9	✓

[a]The icon 'v' next to the value indicates that the standard has been achieved, while the icon 'x' indicates otherwise.

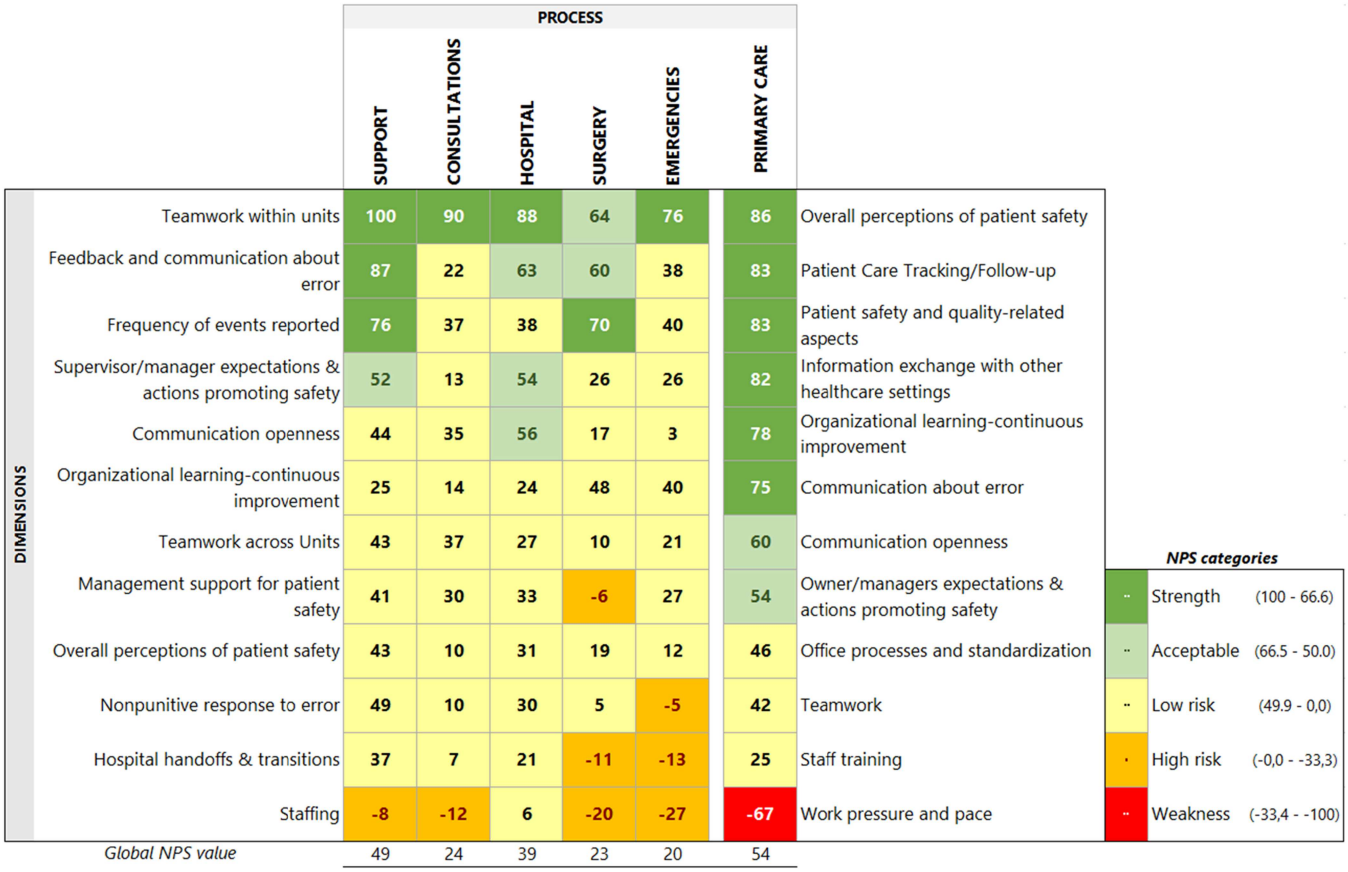

FIGURE 1 | Categorisation of NPS values obtained by each process in the safety culture dimensions assessed in the study. NPS, net promoter score.

structured workflows, better staffing ratios, or clearer communication channels in outpatient settings. In contrast, the −52 score in 'primary care' reveals serious concerns, particularly regarding work pressure and staffing. These findings highlight the importance of examining safety culture at the process level rather than relying solely on aggregated organisational scores, as local working conditions, workloads, and team structures can influence professionals' perceptions of safety.

Across all processes, 'teamwork within units' consistently emerged as a strength, reflecting the central role of collaborative practices in maintaining safe care environments. Conversely, staffing-related issues were the most frequently observed areas of concern, especially in the hospital-based processes and primary care. These patterns align with previous studies using AHRQ instruments, which also report teamwork as a common strength and staffing as a recurrent limitation in both hospital [11] and primary care settings [12]. The consistency of these findings reinforces the relevance of monitoring these dimensions to support targeted improvement strategies. At the international level, similar results have been reported in European hospitals [13, 14] and in primary-care studies from countries such as Greece [15]. Spanish studies in both hospital [16] and primary-care contexts [17] also identify teamwork as a recurrent strength and staffing as a frequent weakness, supporting the relevance of continued monitoring across diverse settings.

These staffing-related concerns also align with a growing literature on moral injury among health care workers. Persistent deficits in staffing and the inability to deliver care that meets professional standards have been associated with forms of occupational distress that are conceptually distinct from burnout and do not respond to individually focused interventions [18–20]. Acknowledging these dynamics reinforces the need for organisational responses when staffing-related weaknesses are identified.

The study benefited from a high response rate and consistency across the six evaluated processes, enhancing the reliability and generalisability of the findings [21]. The use of validated instruments, such as the MOSP and Hospital Survey on Patient Safety Culture [22], further strengthened the study's methodology. The disaggregation of results by care process allowed a more detailed understanding of local strengths and weaknesses, offering practical insights for managers. The use of NPS provided a single, easy-to-interpret metric that complemented the AHRQ thresholds by summarising the balance of favourable and unfavourable perceptions. Although NPS may reduce nuance in intermediate categories, its high concordance with the AHRQ classification (93%) suggests that it can serve as a useful complementary indicator for monitoring and communicating results. This simplification facilitates communication of results across different organisational levels and supports decision-making in quality improvement efforts, while maintaining a high level of concordance with traditional metrics. This aligns with previous work showing the usefulness of NPS as a polarity-based metric in clinical settings [23, 24].

Recent work has also shown that HSOPS-based classifications can vary depending on scoring choices and on how missing

TABLE 3 | LQAS Results by process in the safety culture dimensions assessed in the study.

		Process																	
		Surgery			Emergencies			Consultations			Hospitalisation			Supportive Care			Primary Care		
	LOTS	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for "Weakness"	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'
Dimension	Teamwork within Units	4	2	0	4	0	0	4	0	0	4	0	0	4	0	0	4	3	0
	Supervisor/ Manager Expectations& Actions Promoting Safety	4	3	0	4	2	1	4	3	0	4	1	0	4	1	1	4	1	1
	Organisational Learning-Continuous Improvement	3	2	0	3	1	0	3	1	1	3	1	1	3	1	1	3	0	0
	Management Support for Patient Safety	3	2	1	3	2	0	3	2	0	3	3	0	3	2	0	—	—	—
	Feedback and Communication About Error	3	0	0	3	1	0	3	2	0	3	1	0	3	0	0	6	1	0
	Communication Openness	3	2	1	3	2	0	3	2	0	3	1	0	3	2	0	4	1	0
	Frequency of Events Reported	3	0	0	3	2	0	3	1	0	3	2	0	3	0	0	—	—	—
	Teamwork Across Units	4	4	0	4	4	0	4	2	0	4	3	0	4	2	0	—	—	—
	Hospital Handoffs & Transitions*	4	4	1	4	4	0	4	4	1	4	3	0	4	3	0	4	0	0
	Nonpunitive Response to Error	3	2	1	3	3	0	3	2	0	3	1	0	3	1	0	—	—	—
	Staffing[a]	4	3	3	4	3	2	4	3	1	4	3	1	4	2	2	4	4	3
	Overall Perceptions of Patient Safety	4	4	0	4	3	1	4	2	0	4	2	0	4	2	0	4	0	0
	Patient Safety and Quality-Related Aspect	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	1	0

(Continues)

TABLE 3 | (Continued)

	Process																	
	Surgery			Emergencies			Consultations			Hospitalisation			Supportive Care			Primary Care		
LOTS	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for "Weakness"	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'	Checked (number of questions)	Rejected for 'Strenght'	Rejected for 'Weakness'
Patient Care Tracking/ Follow-up	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	0	0
Staff Training	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	3	1
Office Processes and Standardi-sation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	2	0
Total	42	28	7	42	27	4	42	24	3	42	21	2	42	16	4	57	16	5
		67%	17%		64%	10%		57%	7%		50%	5%		38%	10%		28%	9%

Note: MOSP: Information Exchange with Other Health care Settings
[a]MOSP: Work Pressure and Pace.
*Indicates dimensions that are included only in the hospital survey (HSOPS) and are not applicable to the Medical Office Survey on Patient Safety Culture (MOSPS).

responses are treated, with meaningful shifts in composite scores under different aggregation or imputation strategies [25]. Although our telephone administration prevented missing data, the classifications produced here remain dependent on these established conventions.

A further limitation is the absence of qualitative information. Studies analysing free-text comments collected alongside HSOPS surveys have shown that open responses may reveal discrepancies that Likert scores alone can overlook, including units where acceptable numerical scores coexist with unresolved team conflicts or limited implementation of corrective actions [25]. Incorporating a brief open-ended prompt in future monitoring cycles could therefore enrich interpretation and support organisational learning.

LQAS also proved valuable for identifying improvement opportunities [26, 27]. Its small sample size requirements make repeated measurements feasible, even in resource-constrained settings, and its clear acceptance/rejection logic facilitates the prioritisation of areas with the most critical results. However, the limited precision inherent in small lot sizes should be considered when interpreting results, and LQAS is best used as a screening tool rather than a precise estimator.

The monitoring plan developed from these findings distinguishes positive aspects of safety culture (indicators 1 and 3) and areas requiring attention (indicators 2 and 4). Its simplicity and process-based structure offer practical value for managers interested in incorporating safety-culture information into routine quality-improvement cycles. Nonetheless, outcome-based indicators provide only a partial view of safety culture [28]. Future monitoring could benefit from incorporating process-focused measures such as incident-reporting activity or participation in safety-training programmes [29, 30].

Some limitations should be acknowledged. Telephone administration may introduce social-interaction bias [31], although the high response rate suggests the method was acceptable for participants. The use of small LQAS lots limits the precision of estimates, and the study was conducted within a single integrated health care area, which may affect the generalisability of findings. In addition, although NPS offers a simplified view of safety culture, it condenses polarity into a single value that may overlook intermediate nuances. A further limitation is that the monitoring plan developed from these findings was not empirically piloted. Although the indicators were reviewed internally for feasibility, prospective validation would be required before recommending wider adoption. Such validation should assess feasibility in routine settings, user acceptability among managers and clinicians, temporal stability, and sensitivity to change, to determine whether the plan can support continuous monitoring and guide organisational responses over time.

Overall, the combined use of NPS and LQAS provides a practical and scalable approach for monitoring patient safety culture across care processes within an integrated health care organisation. By simplifying interpretation and enabling small-sample classification, these tools support clearer communication of results, prioritisation of improvement efforts, and the incorporation of safety-culture monitoring into routine governance structures. The variability observed between care processes reinforces the value of process-level approaches. Future work should explore longitudinal applications, assess sensitivity to

TABLE 4 | LQAS Analysis. Lots rejected for 'weakness', considered in the study as of high priority for improvement.

High priority opportunities for improvement (rejected lots for 'weakness')		Process							
Dimension	**Question**	**Surgery**	**Emergencies**	**Consultations**	**Hospitalisation**	**Supportive care**	**Primary care**	**Rejected lots**	
Staffing[a]	Sometimes, the best care can't be provided because the working hours are too long.	☒	☒	☒	☒	☒		5	**12**
	We work under pressure to get a lot done quickly.	☒	☒			☒		3	
	Sometimes, the staff doesn't give the best care because there are too many substitutes or temporary staff.	☒						1	
	In this centre, we feel that we are rushed when seeing patients.						☒	1	
	We have too many patients assigned for the number of health care providers the centre has.						☒	1	
	We have enough non-medical staff to handle the workload of patients.						☒	1	
Supervisor/manager expectations & actions promoting safety	When things get really busy, my supervisor wants us to work faster, even if it means taking shortcuts.					☒		1	**3**
	My supervisor overlooks patient safety problems that happen over and over.		☒					1	
	Not enough resources are being invested to improve the quality of care in this health centre.						☒	1	
Organisational learning- continuous improvement	Changes to improve patient safety are evaluated to see if they work.				☒	☒		2	**3**
	When a mistake is made, do hospital staff tell you what they are doing to correct it?			☒				1	
Hospital handoffs & transitions	Information doesn't get passed between shifts smoothly			☒				1	**2**
	Things don't always run smoothly in the transition from one shift to another.	☒						1	
Communication openness	Staff are afraid to ask questions when something doesn't seem right.	☒							**1**

(Continues)

TABLE 4 | (Continued)

High priority opportunities for improvement (rejected lots for 'weakness')		Process						
Dimension	**Question**	**Surgery**	**Emergencies**	**Consultations**	**Hospitalisation**	**Supportive care**	**Primary care**	**Rejected lots**
Management support for patient safety	Management only seems interested in patient safety after an adverse event has happened.	☒						**1**
Nonpunitive response to error	When mistakes are made, staff worry that they will be kept in their personnel file.	☒						**1**
Overall perceptions of patient safety	There are problems with patient safety in this unit.		☒					**1**
Staff training	In this centre, non-medical staff receive the training they need to do their jobs.						☒	**1**
		7	4	3	2	4	5	**25**

[a]MOSP: Work Pressure and Pace.

change, and evaluate integration with updated safety-culture instruments to strengthen continuous learning and improvement across settings.

Author Contributions

Authors J.J.L.P. and I.V.A. conceived and planned the study. All authors implemented the interventions, carried out the evaluation, discussed the results, and contributed to the final manuscript.

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Consent

All the authors reviewed and approved the final version of this manuscript and consent to its publication.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data sets generated and analysed during the current study are available from the corresponding author upon reasonable request.

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