

The Impact of Kaizen Strategy on Improving Institutional Performance in Healthcare Organizations: Al-Nahda Hospital, Sultanate of Oman as a Model

أثر استراتيجية كايزن على تحسين الأداء المؤسسي في المؤسسات الصحية بسلطنة عُمان – مستشفى النهضة نموذجاً

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Date of receipt: 05/06/2026

Date of acceptance: 27/06/2026

Abstract

This study explores the effect of Kaizen strategy on performance in Al-Nahda hospital in Oman. Researchers used a descriptive-analytical approach and data were collected from 300 of the 935 employees of the hospital. They wanted to eliminate inconsistency, reduce overburden and reduce waste. The study also took into account institutional efficiency, which included effectiveness, quality of service, flexibility and dedication. Participants answered a 24-item questionnaire on a five-point scale. Responses were analyzed with SPSS 26 through descriptive stats, One-Sample T-tests, One-Way ANOVA, Pearson correlation, and simple linear regression. Common method bias was assessed via Harman's single factor test; the first factor accounted for 31.4% of total variance (threshold < 50%), suggesting method bias does not materially confound results. Results confirm a very strong positive relationship between Kaizen strategy and institutional performance ($R = 0.910$, $R^2 = 0.828$, $F(1, 298) = 1432.712$, $p < 0.001$), with Kaizen explaining approximately 83% of the variance in institutional performance. All Kaizen dimensions scored in the 'high' range ($M = 3.70-3.84$), as did all institutional performance dimensions ($M = 15.02-15.63/20$). One-Way ANOVA revealed statistically significant differences across demographic groups (gender, position, years of experience, educational qualification; $p < 0.001$ throughout). The study contributes the first regression-based, multi-dimensional Kaizen model in Omani healthcare aligned with Vision 2040, and recommends differentiated training programmes, cross-departmental standardization, and formal employee-engagement mechanisms to institutionalize Kaizen as a sustainable practice.

Keywords: Kaizen strategy; institutional performance; healthcare organizations; continuous improvement; Balanced Scorecard; Sultanate of Oman.

ملخص

تناولت هذه الدراسة أثر تطبيق استراتيجية كايزن على الأداء المؤسسي في مستشفى النهضة بسلطنة عُمان (عينة: 300 موظف من مجتمع قوامه 935). اعتمدت الدراسة المنهج الوصفي التحليلي، إذ جُمعت البيانات باستبانة مكونة من 24 فقرة تقيس أبعاد كايزن الثلاثة — موزا (القضاء على الهدر)، وموري (تقليل الإجهاد)، ومورا (إزالة التفاوت) — وثلاثة أبعاد للأداء المؤسسي. وللتحقق من تحيز الأسلوب المشترك، أُجري اختبار هارمان للعامل الواحد، وأسفر العامل الأول عن 31.4% من التباين الكلي (أقل من عتبة 50%)، مما يُفيد بعدم وجود تحيز جوهري. استُخدم مقياس ليكرت الخماسي وحُللت البيانات ببرنامج SPSS 26.

أثبتت النتائج وجود علاقة إيجابية قوية جداً بين استراتيجية كايزن والأداء المؤسسي ($R^2 = 0.828$, $R = 0.910$). وتقدّم الدراسة إسهاماً أصيلاً بوصفها أول نموذج كايزن متعدد الأبعاد مبني على الانحدار في البيئة الصحية العُمانية، مرتبطاً برؤية عُمان 2040 ومدعوماً بإطار بطاقة الأداء المتوازن. وتوصي الدراسة ببرامج تدريب متميزة، وتوحيد الإجراءات بين الأقسام، وتفعيل آليات مشاركة الموظفين.

الكلمات المفتاحية: استراتيجية كايزن؛ الأداء المؤسسي؛ المؤسسات الصحية؛ التحسين المستمر؛ بطاقة الأداء المتوازن؛ سلطنة عُمان.

1. INTRODUCTION

Healthcare groups worldwide face more complexity due to higher patient expectations, ongoing resource shortages, fast-changing technology, and demands for both high quality and cost control. Continuous improvement is super important – it's not something you do now and then. In difficult service roles, teams can stay on top of their game by implementing the Japanese concept of Kaizen, or “continuously improve” (Imai, 2012; Harry, Van Aken, & Glover, 2025). 3 major goals are focused on: eliminate waste (Muda), eliminate overburden (Muri) and eliminate unevenness (Mura). Instead, it's small, consistent improvement each day rather than large rapid shifts (Graban, 2021; van Elp, Roemeling, & Aij, 2022). And that means everyone – from top management to the front line. Hospitals that implement Kaizen have been shown to be more efficient, less error prone, deliver better quality of care and maintain that continuous improvement (Haapatalo et al., 2023; Pozzan et al., 2025; DelliFraine, Langabeer & Nembhard, 2010). The Kaizen concept is also consistent with the Balanced Scorecard framework (Kaplan & Norton, 1996). The scorecard has four main areas to review: finances, customers, internal processes and learning and growth. Kaizen removes waste or muda to enhance the flow of money. It also makes internal processes simpler. It addresses overburden or muri to promote learning and growth and to prevent burnout. Plus it polishes operations for on-going customer service as well.” Kaizen is related to the Baldrige framework and continuous improvement is an effective approach that improves the performance management. This sustains healthcare teams who wish to sustain quality over time (Pozzan et al., 2025; EFQM, 2020).

Oman Vision 2040 is targeting the re-organization of the healthcare for high quality service. Al-Nahda Hospital in Muscat is promising but faces challenges due to its large team of 935 people. Managers say departments don't cooperate with each other and don't regularly check performance. They respond to problems, not prevent them. And the policies are not always well followed. But the committed big staff is working for continuous improvement.

The present study was conducted to investigate the effect of Kaizen on improving the performance in Al-Nahda Hospital. This research addresses three main problems; the absence of integrated Kaizen models in the Arab healthcare context, the scarce use of powerful statistical tools such as regression and ANOVA in the local Kaizen researches and the limited number of Omani researches linking Kaizen to the success of a hospital through the balanced scorecard perspective.

1.1 Research Questions and Objectives

The study is guided by four sub-questions: (1) What is the current status of Kaizen implementation at Al-Nahda Hospital? (2) What is the current level of institutional performance? (3) What is the impact of Kaizen strategy on institutional performance? (4) Are there statistically significant differences attributable to demographic variables (gender, position, years of experience, educational qualification) in this relationship?

Correspondingly, the study aims to: assess senior management commitment to Kaizen; evaluate institutional performance across its key BSC-aligned dimensions; measure the impact of Kaizen on performance indicators; and examine demographic moderation of the Kaizen-performance relationship. Three hypotheses are tested: H1 — a statistically significant positive relationship exists between Kaizen strategy and institutional performance ($\alpha \leq 0.05$); H2 — Kaizen strategy has a statistically significant positive impact on institutional performance ($\alpha \leq 0.05$); H3 — no statistically significant differences attributable to demographic variables exist in this relationship ($\alpha \leq 0.05$).

2. LITERATURE REVIEW

2.1 Kaizen Strategy: Theoretical Foundations

Imai (2012, p. 3) defines Kaizen as "a management philosophy focused on continuous and gradual improvement in all aspects of work, with comprehensive participation by all employees, presenting simple but cumulative solutions that yield significant long-term results." The framework's three main dimensions give a thorough way to reduce waste. Muda is about getting rid of output waste, such as waiting, excess inventory, unnecessary motions, over-processing, and rework. Muri is where we overload people, tools or systems causing errors, fatigue and reduced quality. Mura on the other hand refers to uneven process flows such as erratic demand or task management that result in delays, downtime and poor service (Singh & Singh, 2015; Liker & Franz, 2013).

Kaizen is different. It is based on suggestions from the bottom up, not from the top down, as in other programs. It appreciates the perspective of those on the front lines who see the inefficiencies up close. This results in better solutions and higher employee engagement. It also increases the safety of the workplace and makes the staff more accountable (van Elp et al., 2022). Furthermore, Kaizen events, which involve focused teamwork for improvement, are highly favored in health care for effecting change in a simple manner (Harry et al., 2025).

2.2 Kaizen and the Balanced Scorecard: A Theoretical Bridge

The Balanced Scorecard, developed by Kaplan and Norton in 1996, assists in translating the organizational strategy into achievable goals. It looks at finances, customer satisfaction, internal processes and potential for growth. Pozzan et al. (2025) argue that while Kaizen originates from Japanese manufacturing and the Balanced Scorecard is used in strategic management, combining the two could substantially enhance healthcare improvements.

The real value of Kaizen and the Balanced Scorecard is when they are used in tandem. They reduce waste, streamline processes, avoid wasted effort, and conserve resources. This enhances both internal processes and financials. More overload can mean less burnout and absenteeism for workers, and higher capacity – hitting those learning and growth goals. It also reduces inconsistencies and provides better consistent patient care that counts.

The study measures the performance by internal processes and customer satisfaction, flexibility and growth, and financial commitment with learning using BSC- Kaizen alignment. Al-Balushi et al. (2014) propose the same Balanced Scorecard based dimensions that could be used to assess the lean readiness in health care.

2.3 Kaizen in Healthcare: International Evidence

Kaizen events in hospitals in North America, Europe, and Australia have led to improvements in patient flow, process efficiency, documentation, and safety, according to Harry et al.

(2025). But hospital leaders had to continue to oversee and support the new procedures to maintain these benefits. Haapatalo et al. (2023) evaluated the effects of 26 Kaizen events in a large Finnish hospital and found that improvements were sustained for 12 to 24 months when leaders continued to support the change. So there is a strong correlation between having that leadership support and sustaining the positive results.

DelliFraine et al. (2010) found that Lean/Kaizen tools can improve efficiency and reduce waste, but only if they are well implemented and fit the culture of the company. Pozzan et al. (2025) also chimed in, showing that top-performing systems combine process metrics with actual patients results. This allows managers to deal with issues straight away. In the Netherlands, van Elp et al. (2022) found lean principles work very well when leaders continuously maintain Kaizen. This steady approach keeps places getting better over time. Shaving waste all the time.

Nejjari, Etouzani, and Benmoussa (2024) discovered that when Moroccan hospitals blend Kaizen with transformational leadership, both performance and employee commitment improve. Meanwhile, Tsapnidou, Latsou, Koinis, and Geitona (2024) support this with a scoping review, proving that transformational leadership strongly forecasts quality achievements in health care. This clearly shows how important good management is for an organization's success.

2.4 Institutional Performance in Healthcare

In organizations, performance means meeting goals efficiently (EFQM, 2020). For healthcare, this covers clinical results, service quality, and smooth operations. The EFQM Excellence Model notes that peak performance benefits all through awesome leadership, innovation, strong governance, and efficiency (EFQM, 2020). So, great outcomes last when these elements are in place. The Balanced Scorecard (Kaplan & Norton, 1996) looks at finances, customer satisfaction, internal processes, and learning growth all in one big picture. It's commonly used in healthcare and, as I see it, it gives us the clearest view of Kaizen's far-reaching effects too.

In this study, the performance of institutions is defined using three dimensions aligned with the Balanced Scorecard, or BSC, from various sources: (1) operational efficiency and service quality, which looks at how effectively hospitals provide care to professional standards—combining internal processes and customer feedback; (2) flexibility and adaptability, which is about the organization's ability to handle change and unexpected issues, relating to the

learning and growth view; and (3) institutional commitment and discipline, showing how staff follow the organization's values, procedures, and safety standards, covering both financial and learning aspects. This definition relies on the work of EFQM (2020), Nejari et al. (2024), and Al-Balushi et al. (2014).

2.5 Kaizen and Institutional Performance: Research Gap

Research on Kaizen in Arabic healthcare is pretty sparse. Al-Yahyai and Al-Kalbani (2020) found that Kaizen cuts hospital waiting times and boosts coordination in Omani referral hospitals. Still, inconsistent leadership makes it hard to sustain these gains over the long term. According to Kanza (2020), Kaizen improves worker performance, emphasizing that proper training, support, and inspiration really help in Arab organizations.

Existing literature discusses kaizen as a performance improvement through leadership, culture and training. There are, however, three major research gaps. First, there is no model linking Kaizen with Balanced Scorecard in Arab healthcare settings. Second, many studies lack advanced statistical methods such as regression and ANOVA. Third, a multi-dimensional framework has not been linked to the healthcare goals of Vision 2040 by Omani scholars.

3. METHODOLOGY

3.1 Research Design and Population

This study used a descriptive-analytical design to examine Kaizen's impact on performance in a real-world environment, avoiding direct interference. Researchers looked at all 935 Al-Nahda Hospital employees in Muscat, Oman, from April to August 2025, including everyone from doctors and nurses to support and admin staff.

3.2 Sampling

We needed at least 274 participants, according to Krejcie and Morgan (1970), but ended up with 300. This group represents 32.1% of the population. Of those, 171 were admin staff (57.0%), 104 were medical personnel (34.7%), and 25 came from allied fields (8.3%). In terms of gender, we had 264 males (88.0%) and 36 females (12.0%). By years of experience: 1–5 years 84 (28.0%), 6–10 years 160 (53.3%), >10 years 56 (18.7%). By educational qualification: general education diploma 123 (41.0%), bachelor's degree 101 (33.7%), postgraduate 39 (13.0%), post-secondary diploma 37 (12.3%).

3.3 Instrument

The questionnaire was structured using scales from Imai (2012), van Elp et al. (2022), EFQM (2020) and Nejari et al. (2024). It had two parts: the first part was about Kaizen, asking twelve questions about Muda, Muri and Mura. The second part focused on Institutional Performance. It assessed efficiency, service quality, flexibility and adaptability using a further twelve questions.

The first part was on improvement in business practice based on Kaizen principles. The second part was on how well institutions manage different aspects of management. The survey had twenty-four questions in total, with half of them being Kaizen-based and the other half being performance metrics-based.

3.4 Common Method Bias Assessment

The collection of independent and dependent variables at the same time may potentially cause common method bias and threaten construct validity (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We used 3 methods to fight this - procedural steps and a statistical solution. To start with, we separated the Kaizen section from the institutional performance section by giving different instructions. This lowered the chance of psychological bias. We also emphasised anonymity and honesty, asking participants to be sure to use real work experiences, rather than personal guesses, to avoid inauthentic responses. Harman's test was conducted with an exploratory factor analysis using the unrotated principal component method on all 24 items. The first factor accounted for only 31.4% of the variance – not very high as 50% is more common (Podsakoff et al., 2003). This indicates that the Kaizen–performance relationship is unlikely to be seriously affected by common method bias. But we have to be careful, with a R^2 of 0.828. Future research should apply multi-source longitudinal methods to obtain better results.

3.5 Data Analysis

We used the SPSS 26 to analyse our data. Means and standard deviations were calculated. We performed one-sample t-tests to test if the mean scores were different from 3.0, the midpoint of the scale. Differences between groups were identified using one-way ANOVAs. To test Hypotheses 1 and 2 we used Pearson correlations and simple linear regression with all variables entered simultaneously. Alpha for statistical significance was set at $\alpha = 0.05$. For effect sizes, we followed the guidelines of Cohen (1988), with less than 0.30 being small, between 0.30 and 0.50 being medium and anything above 0.50 being large.

4. RESULTS AND DISCUSSION

4.1 Kaizen Strategy Implementation

According to Table 1, all Kaizen strategy dimensions are above 3.0. Plus, One-Sample T-tests showed their means as significantly higher ($p < 0.001$ for all). So, they truly stick out.

Table 1. Descriptive Statistics for Kaizen Strategy Dimensions (n = 300)

Dimension	Mean	SD	T (vs. 3.0)	Agreement Level
Muda – Waste Elimination	3.84	0.97	15.02**	High
Muri – Overburden Reduction	3.70	1.02	11.88**	High
Mura – Inconsistency Removal	3.71	0.98	12.57**	High
Overall Kaizen Strategy	3.75	0.99	13.10**	High

** $p < 0.001$. Source: primary data, 2025.

The Muda dimension had the highest mean at 3.84 (SD = 0.97), showing that waste reduction efforts work. This aligns with the Balanced Scorecard's emphasis on internal processes and

finance. Inside Muda, standardizing healthcare procedures scored 3.82, and having less fatiguing equipment came in second at 3.63. The ANOVA results — $F(31, 268) = 23.67$ ($p < 0.001$) — show that perceptions vary by department. Also, Harry et al. (2025) noted that Kaizen implementation differs between hospital units, which matches our observations. The Muri dimension had an average of 3.70 ($SD = 1.02$). Sharing tasks equally to avoid overload got a score of 3.55, showing some room for improvement.

This aligns with Haapatalo et al.'s (2023) results too. They say that when workers are overloaded, it hurts the company's ability to learn and innovate. Just like that, our data shows the Mura dimension had the lowest score at 3.54 out of $M = 3.71$ and $SD = 0.98$ for embedding a continuous improvement culture. This backs up Al-Yahyai and Al-Kalbani's (2020) point that putting Kaizen into action in Omani hospitals is super tough. Plus, the numbers support it: for Muri, ANOVA came out with $F(31, 268) = 22.63$, $p < 0$

4.2 Institutional Performance

Table 2 reports institutional performance results. All three dimensions scored in the 'high' range; One-Sample T-tests against the midpoint confirmed all means differed significantly from neutral ($p < 0.001$).

Table 2. Descriptive Statistics for Institutional Performance Dimensions (n = 300)

Dimension (BSC Perspective)	Mean (/20)	SD	Agreement Level
Efficiency & Service Quality (Internal Process + Customer)	15.63	3.95	High
Flexibility & Adaptability (Learning & Growth)	15.02	4.42	High
Commitment & Discipline (Financial + Learning)	15.18	4.25	High
Overall Institutional Performance	15.28	4.21	High

Source: primary data, 2025.

The employees rated inter-employee coordination highest with a perfect mean of 4.01, showing some serious team spirit. Efficiency and service quality came right after that. The numbers back this up too – ANOVA: $F(34, 265) = 19.99$, $p < 0.001$. They also gave high marks to institutional commitment and discipline at 3.90, as well as time management with 3.85. All of this aligns with what DelliFraine et al. (2010) discovered. On the flip side, flexibility and adaptability, with their lower score of $M = 3.68$ (and especially low for willingness to take on extra duties), got the lowest possible marks ($M = 15.02$) from the BSC learning and growth view. These areas clearly need more work since, according to Pozzan et al. (2025), being adaptable is key for keeping lean practices in the long run.

4.3 Impact of Kaizen on Institutional Performance: Regression Analysis

Table 3 presents the results of simple linear regression testing H1 and H2.

Table 3. Simple Linear Regression: Kaizen Strategy → Institutional Performance

Parameter	Value
Pearson R	0.910
R ²	0.828
Adjusted R ²	0.827
F(1, 298)	1432.712
p	< 0.001
Unstandardized B (Kaizen)	0.892
Std. Error	0.024
Standardized β	0.910
t	37.851
Constant (Bo)	6.152

Dependent variable: Overall Institutional Performance. Source: primary data, 2025.

The regression model is highly significant: $F(1, 298) = 1432.712$, $p < 0.001$. The Pearson correlation of $R = 0.910$ shows a very large positive effect, according to Cohen. The Kaizen strategy accounts for 82.8% of performance variance, or $R^2 = 0.828$ and $\text{Adj. } R^2 = 0.827$. Also, each unit increase in Kaizen leads to a 0.892 unit rise in performance, with $\beta = 0.910$, $t = 37.851$, and $p < 0.0001$. The regression equation is: Institutional Performance = $6.152 + 0.892 \times \text{Kaizen}$. The model's standardized residuals, ranging from -2.898 to 3.285 with a mean of 0.000 and a standard deviation of 0.998, fit a normal distribution. This satisfies the Ordinary Least Squares requirements, so we can accept both H1 and H2. Also, using Kaizen with the Balanced Scorecard, 83% of the variance in all four performance areas is explained at once. This combo cuts waste, improves internal processes and finances (Muda), protects staff—which boosts learning and growth (Muri)—and keeps service quality up to maintain customer satisfaction (Mura). The Harman single factor test showed that the first factor accounts for 31.4% of the variance. Although common method bias isn't our only worry, we might still see some inflation due to lack of multi-source data. Still, this supports both H1 and H2.

4.4 Demographic Differences (H3)

Table 4 summarizes the One-Way ANOVA results for between-group performance differences by demographic variable.

Table 4. ANOVA Summary: Kaizen and Performance Scores by Demographic Variable

Variable	F-statistic	df	p	Interpretation
Gender	23.41	1, 298	< 0.001	Males > Females on Kaizen implementation
Current Position	31.76	3, 296	< 0.001	Clinical staff differ from admin staff
Years of Experience	18.93	2, 297	< 0.001	More experienced = higher Kaizen scores
Educational Qualification	22.15	3, 296	< 0.001	Higher education = stronger performance

Source: primary data, 2025.

The One-WAY ANOVA highlighted major differences in how Kaizen is perceived and executed among four groups ($p < 0.001$), debunking the notion that demographics aren't important (H3). That hypothesis failed miserably. Also, employees with higher education and

experience aligned more with Kaizen and performed better, which supports Nejari et al. (2024). These authors say that education shapes how people take on new management methods. Our study also showed doctors and nurses applied Kaizen differently due to unique job challenges, compared to administrative staff. This is backed by DelliFraine et al. (2010). Therefore, having tailored training programs for various employee groups seems very beneficial based on our findings.

4.5 Discussion

In this research, based on the previous studies on the Kaizen in healthcare, we show a very strong correlation between the Kaizen and performance with R value of 0.910, similar to the previous studies of van Elp et al. (2022) and Harry et al. (2025). Kaizen also complements the Balanced Scorecard very well; the four perspectives of the scorecard correspond nicely to the three dimensions of kaizen. This is the reason why Kaizen helps all three areas at the same time.

This is supported by the high Muda score ($M=3.84$). Harry et al. (2025) support this statement, stating that the best Kaizen programs focus on reduction of waste and standardisation of processes. This fits nicely with the internal process perspective of the Balanced Scorecard.

Mura's cultural embedding score of 3.54 is quite low which is in line with the findings from healthcare studies in Arab and Gulf regions (Al-Yahyai & Al-Kalbani, 2020; Kanza, 2020). People use Kaizen tools but they don't really have the proactive mindset. This is based on the Balanced Scorecard approach, and it focuses on the learning and growth areas. These are important for any kind of improvement. Training is a start but we need to look at deeper cultural and structural changes. If we want to see differences, Kaizen has to be woven into performance reviews, new hire orientations and day-to-day tasks. And more education and experience may help to increase its acceptance.

A cookie cutter program may actually increase the performance gaps between the newer and older staff which is pretty new for Omani healthcare. The key is that Kaizen can be a big institutional improvement over the Balanced Scorecard. But Kaizen is more than simple tweaks to operations. It literally increases efficiency, customer satisfaction, improves financial health, and promotes learning. So it's a full performance management system, not just an operations tool. This is very important for health managers who are working to achieve the goals set out in Vision 2040, which outlines ways of putting successful improvement programs into action.

5. CONCLUSION

The findings of this study show that Kaizen has a major impact on the performance of Al-Nahda Hospital in Oman. The stats back it up. $R = .910$, $R^2 = .828$, $F(1, 298) = 1432.712$, $p < .001$. Kaizen accounts for about 83% of the performance changes. Moreover, the actual relationship between the two is confirmed by a common method bias test (Harman's single factor = 31.4%).

This study contributes three major concepts to our knowledge. Firstly, it fills an important gap by suggesting the first regression-based Kaizen model in the Omani healthcare context. Secondly, Balanced Scorecard is related to Kaizen, it shows three dimensions of Kaizen are consistent with perspectives of Scorecard. This in turn improves internal processes,

customer satisfaction, financial health and continuous learning. Kaizen is useful for both operations and strategy. The study also examines the role of diverse demographics in the implementation and reception of the research in Gulf healthcare. This can be useful in developing tailored training and management programs for Oman Vision 2040.

The study also provides six other tips. For example, leaders should practice Kaizen each day and link bonuses to Balanced Scorecard results. To maintain consistency in hospitals, cross-department teams should verify a Kaizen manual. Training programs should be designed to suit the qualifications and positions of the employees – basic courses for diploma holders, advanced courses for degreed employees and special courses for senior management.

Kaizen teams are also needed in every department, to solve daily issues and give those groups legit acknowledgment. And, publish the Balanced Scorecard dashboards in a prominent location – to track our progress on efficiency, quality, safety, flexibility, and learning. Regular updates will keep everyone posted. Build Kaizen into new employee training, annual performance reviews and the day-to-day duties of managers. This way, every employee stays focused on improvement.

The model shows a strong association ($R^2 = 0.828$) but does not prove causation. So we cannot say for sure that Kaizen improves performance because we did not look at the long term impact. Future research may provide some insight by tracking the performance over a longer period of time after Kaizen has been implemented.

The one big problem was that we were too dependent on one source for our surveys. Taking precautions helped, but couldn't totally eliminate bias. Things would've been more reliable if we checked readmission rates and other key performance indicators too – they back up self-reported info. Also, the study includes mostly men, only 12% are women, making it hard to apply to more diverse healthcare teams. Since we just looked at one hospital, it's tough to generalize. For future research, covering different sites in Omani and Gulf healthcare settings would help see if the benefits stick around.

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