Strategies and interventions to support quality outcomes in the home care setting

Title: Strategies and Interventions to Support Quality Outcomes in the Homecare Setting: A Longitudinal Multilevel Study

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Abstract

Background: The relationship between the practice environment, empowerment, and outcomes such as quality of care, job satisfaction, and intent to stay has been extensively studied in healthcare settings, including hospitals and long-term care facilities. Research consistently demonstrates that a positive practice environment, characterized by supportive leadership, adequate resources, and opportunities for professional growth, is associated with better quality of care, increased job satisfaction, and higher intent to stay among healthcare professionals. Limited knowledge exists regarding the specific relationship between the practice environment, empowerment, and these outcomes within home care organizations.

Objective: This study assesses the impact of strategies on nurse practice environment, social capital, decision latitude, workload, care quality, job satisfaction, and retention in a Belgian home healthcare organization.

Methods: A longitudinal survey was conducted in a home healthcare organization, with data collected at 3 time points: baseline(T1)(2015), T2 (2018), and T3 (2021).

Results: In T3, respondents reported significantly higher scores for departmental and general management compared to T1. The interventions led to significant improvements in social capital and decision latitude. Self-reported quality of care at the department level showed a significant increase, while no significant change was observed for quality of care during the last round.

Conclusion: The implementation of strategies and interventions as part of a broader healthcare transformation process had a positive impact. Significant improvements were observed in nurse-reported quality of care, job satisfaction, and intent to stay in nursing. These findings emphasize the effectiveness of the implemented measures in enhancing nursing practice and creating a positive work environment. Continuous efforts to implement and evaluate such strategies are essential for enhancing the satisfaction and retention of nursing teams within healthcare organizations.

The chronic nursing shortage and high turnover are of concern to many healthcare organizations because of their impact on the efficiency and efficacy of the healthcare delivery system [1]. In addition, the Covid-19 pandemic proved to be a catalyst towards higher levels of absenteeism and turnover among nurses [2]. In a dynamic global landscape, organizations with effective change management, robust policies, and adaptable teams gain a competitive advantage. Given the technical nature of patient care and the growing diversity of patient populations, it is crucial for organizations to have proficient management and comprehensive policies in place, along with staff capable of effectively adapting to change.

A large body of empirical literature supports the connection between the work environments that provide important context for nursing work and a variety of important patient, nurse and organizational outcomes [3–5]. The ideal work environment is one that provides conditions for physical, mental, and social or spiritual well-being [3]. In previous studies researchers found support for a model where nurse practice environment dimensions including nurse–physician relations, management at the department level and hospital management, and work characteristics such as social capital (networks of relationships within a society that enable its effective functioning), decision latitude (an individual's potential to control their tasks and behavior during work) and workload predict job outcome variables and nurse ratings of quality of care [6].

Structural empowerment (SE) in the workplace, as well as access to opportunities, have a direct impact on the attitudes and behaviors of nursing professionals. Working in an environment where SE is present mitigates the risk of burnout among nurses, increases employee performance, and indirectly improves patient satisfaction and patient safety [7, 8]. Furthermore, Fragkos et al. [9] showed strong correlations between SE and organizational commitment, SE and psychological empowerment and between SE and job satisfaction. Structural empowerment can be achieved by providing access to opportunity, support, information, and resources in the healthcare delivery system [8, 10].

Studies have confirmed the impact of practice environment and SE on quality of care, intent to stay and job satisfaction in psychiatric hospitals and long-term care facilities. There is however little knowledge about the

relationship between practice environment and work characteristics such as how staff experience social capital, decision latitude and workload on those outcomes in home care organizations. We hypothesize that implementing strategies and interventions to support the nursing practice environment and structural empowerment of nurses can impact both patient and team outcomes.

The American Nurses Credentialing Center® (ANCC) built on the original Magnet® study to establish the ANCC Magnet Recognition Program®. Initially comprising 14 Forces of Magnetism (FOMs), the program later evolved into a parsimonious model with 5 key components: transformational leadership, structural empowerment, exemplary professional practice, empirical outcomes and new knowledge, innovations, and improvements [11]. The ANCC Pathway to Excellence® Program recognizes healthcare organizations globally that have met standards demonstrating a positive practice environment that engages and empowers nurses. The Pathway framework includes 6 standards: professional development, well-being, shared decision-making, leadership, safety, and quality [12].

A home healthcare organization providing nursing care in the Dutch-speaking part of Belgium with 15 regional departments developed and implemented strategies and interventions to support the nurse practice environment and empowerment of nurses to impact quality of care and staff well-being. These strategies were inspired by Magnet® hospital research and the related programs of ANCC Magnet® recognition as well as a Pathway to Excellence program. Moreover, the organizations decided to follow the Qualicor® accreditation processes in 2018 and 2022. This study was designed to evaluate these strategies scientifically by conducting survey studies on nursing staff in 2015 (T1), 2018 (T2) and 2021(T3) to support the home care organization in their governance and policy. The third measurement period (T3) was assessed during the Covid-19 pandemic.

Method

Aims

This study examines the effects of implemented strategies and interventions on various outcomes across different study periods. A longitudinal approach was employed, involving 3 measurement intervals, to assess the nurse practice environment, burnout, engagement, job outcomes, quality of care, and work characteristics. A longitudinal survey in a home healthcare organization collected data at 3 time points: T1 (baseline, 2015), T2 (2018), and T3 (2021). Notably, the NIAZ/Qualicor accreditation process was introduced between T1 and T2.

Participants

This longitudinal study took place in a home care organization located in the Dutch-speaking region of Belgium, specifically in the province of Antwerp. The organization employs 858 nurses (as of 2021) and provides care to over 25,000 patients each year. Participants in the survey included direct care registered nurses and midwives, as well as certified nursing assistants. They were given the option to voluntarily complete the questionnaire either online or in paper format. The paper questionnaire distribution occurred at the conclusion of a centrally organized training program.

Strategies and interventions

In 2007, Wit-Gele Kruis van Antwerpen, a home health organization, appointed a new Chief Executive Officer (CEO) and Chief Nursing Officer (CNO). This led to the development of a governance and policy framework. This plan focused initially on pillars such as work organization, weekly team meetings, and reference nurses/educators within the 15 home care nursing departments organized regionally. Later, the organization integrated an Electronic medical record (EMR) and a nursing techniques support team (VTST) into the policy framework. In 2013, the Flemish Care Inspectorate introduced a revised supervisory framework that presented hospitals with 2 options: system supervision or international accreditation through entities such as Joint Commission International® (JCI) or Qualicor® [13–15]. While hospitals were given the choice, it was not mandatory for home health organizations to pursue accreditation to secure funding. Despite this, the CEO decided to pursue accreditation voluntarily, driving a transformation process towards enhanced collaboration between the home health organization, general practices and hospitals.

Nurses play a critical role in ensuring quality of care and patient safety within the home health setting. Their direct patient contact and observation skills are instrumental in detecting changes in patients' health conditions, delivering dedicated care, and coordinating patient care with medical providers. In healthcare today, resilient teams are essential, supported by management and policies. Inspired and guided by previous research evidence [5, 16, 17] the *Wit-Gele Kruis van Antwerpen* adopted an "empowered teams" management model supporting each department nursing managers with an additional quality coordinator as well as an administrative support. Moreover, the approach emphasized efficient and effective teams, empowered nurses, teamwork, and the use of technology like the electronic patient file and reference nurses/educators. Training programs, bedside teaching, and participative leadership styles were introduced to foster professional growth and skill development.

The *Wit-Gele Kruis van Antwerpen* willingly pursued quality accreditation (Qualicor®) in both 2018 and 2022 with the aim of standardizing processes and improving overall quality. The process involved internal and departmental audits, cross-departmental feedback, and data-driven quality boards. The organization maintained a culture of continuous quality improvement, fostering commitment rather than mere compliance to standards. Patient satisfaction measurements, focus groups, and interviews helped incorporate patient and family perspectives. The transformation process driven by accreditation prepared the organization to face challenges such as the 2020 pandemic. Thanks to the aligned structures, processes, and nurse commitment, the *Wit-Gele Kruis van Antwerpen* adapted to new circumstances, launching procedures, and ensuring hyper-alertness to quality issues. Therefore, the *Wit-Gele Kruis van Antwerpen's* journey of accreditation and transformation supported a culture of continuous quality improvement and patient safety within the home healthcare setting. A diagram outlining the various strategies and interventions is available as supplemental digital content 1.

Variables and instruments

Prior to the current study, the structures of multi-item measures were thoroughly evaluated with both exploratory and confirmatory factor analysis and with internal consistency analysis in several samples [18–21]. These survey studies were conducted in hospitals and long-term care facilities. For this study, researchers specifically adapted them for use in the home care context.

Practice environment was measured with a translated and validated Dutch version of the Nursing Work Index (NWI-R) [22], a widely used measure from the United States which we adapted for the Belgian context. Three dimensions have been identified in this version of the tool [23]: nurse-physician relations (3 items), nursing management at the department level (13 items) and general management and organizational support (15 items). Limited adjustments were discussed and set with nursing background experts at the home organizations (CEO, CNO and a director of nursing) and the research team. Staff nurses rated their agreement with various statements regarding the practice environment in their current positions on a 4-point Likert scale (strongly disagree, disagree, agree, strongly agree).

Burnout was measured with the Maslach Burnout Inventory Human Service Survey (MBI) [24], a 22-item survey with tested subscales [23, 25] using 20 items tapping 3 separate dimensions: emotional exhaustion (8 items), depersonalization (5 items) and personal accomplishment (7 items). Respondents rated the frequencies with which they experience various job-related feelings on a 7-point scale ranging from never to every day. High scores on emotional exhaustion and depersonalization and low scores on personal accomplishment scale are considered indicative of burnout [24].

Work characteristics were measured through three scales: **social capital** [26, 27] with 6 items tapping shared values and perceived mutual trust within teams; **decision latitude** [28], 6 items about staff ability to make decisions, be creative, and use and develop their professional and personal skills at the workplace; and assessed **workload** by 7 items [28]. Respondents rated their agreement or disagreement on 4-point Likert scales (strongly disagree, disagree, agree, strongly agree).

Work engagement was measured via the Utrecht Work Engagement Scale-9 [29, 30]. Work engagement is considered as the positive opposite of Burnout [29, 31]. Work engagement is defined "as a positive work-related state of fulfilment that is characterized by vigor (3 items), dedication (3 items), and absorption (3 items)".

Nurse reports of **quality of care** in their department and during the last round as well as to what extent staff could meet patient and caregivers' needs were obtained using 4-point Likert scales (poor, fair, good, excellent). Finally, two types of job outcomes were assessed: **satisfaction** with the current job (very dissatisfied, dissatisfied, satisfied, and very satisfied), **intent to leave** their employer within the next year, and intent to leave the nursing profession (yes, no). Lastly, nurses were asked to rate their agreement with statements regarding **job satisfaction**, **intent to stay** with their employer and in the nursing profession, **quality of care** on the department level and whether they can **meet patient and caregivers needs** on a 4-point Likert scale.

All variables, except for workload and the burnout dimensions such as emotional exhaustion and depersonalization, were coded for analysis so that higher scores indicated stronger agreement or more favourable ratings. On the latter measures, higher scores are suggestive of unfavourable perceptions or conditions.

Ethics

The study methodology including the developed and tested instruments was approved by a qualified ethics review committee of the Antwerp University Hospital and the University of Antwerp in 2012 (B300201215711) and 2016 (16/42/428).

Statistical Analysis

Since data were collected on the survey participant level within 15 local departments and 1 mobile team (N = 16 departments), the assumption of independence of observations was violated and measurements were nested within departments. Multilevel linear mixed-effects models (also known as hierarchical linear models or

mixed-effects models) are well-suited for studies with clustering in the data and time effects due to their ability to handle the hierarchical and nested structure in the data [17]. If standard regression techniques would be applied to clustered data where the assumption of independence is violated, the Type-I error rate would be seriously inflated, leading to an incorrect rejection of the null hypothesis. Therefore, multilevel linear mixed-effect models were fitted to investigate the effect of the implemented strategies on process and outcome measures between different time periods, including time as a fixed effect and the regional department as a random intercept. In the case of a binary dependent variable, a linear mixed model was used with a logit link function. All analyses were carried out with R studio 2022.02.3 Build 492 for macOS using the lme4 package version 1.1-27.1 (https://github.com/lme4/lme4/).

Results

Respondents

Data were collected from 16 departments, resulting in a total of 2,067 questionnaires included in the final analysis across the 3 measurement periods. The response rates for study periods T1, T2, and T3 ranged between 67% and 87%, with corresponding study samples of 581, 746, and 740 respondents, respectively. Table 1 provides a summary of the demographic characteristics. Most respondents were female (93.6% - 95.7%) and held a baccalaureate degree in nursing or midwifery (38.4% - 45.6%). Most respondents were RNs, with an average age of 40.7 years, 15.6 years of professional experience, and 11 years of tenure in their current department. On average, 29.5% of nurses worked at least 80% of a full-time position, while between 43.5% and 49.6% of nurses worked 50% or less of a full-time position.

Table 1: Demographic characteristics

N departments: 16	T1 (2015) (N = 581)		T2 (2018) (N = 746)		T3 (2021) (N = 740)	
	Mean (± SD)		Mean (± SD)		Mean (± SD)	
Age in years	40.4 (±11.1)		39.7 (±11.8)		41.6 (±11.8)	
Years in nursing	15.7 (±11.4)		14.9 (±11.9)		16.0 (±12.2)	
Years on current unit	11.4 (±10.3)		10.3 (±10.5)		11.70 (±11.0)	
	N	%	N	%	N	%
Female	550	94.7	698	93.6	708	95.7
Certified nursing assistant degree	29	5.0	40	5.4	55	7.4
Registered nurses	539	92.8	702	94.1	680	91.9
Baccalaureate degree in nursing or midwifery	223	38.4	340	45.6	313	42.3
Master degree in nursing or midwifery science	9	1.5	7	0.9	9	1.2
Working 50% or less of a full-time position	288	49.6	344	46.1	322	43.5
Working 80% or more of a full-time position	169	29.1	226	30.3	216	29.2

Means (±standard deviation) were calculated at the department level

Outcomes

Table 2 shows the descriptive measures as well as the multilevel models of the nurse practice environment, perceived staffing, characteristics of empowerment, burnout, and engagement dimensions. Mean scores for nurse-physician relationships were relatively stable over the 3 measurement periods. The respondents scored management at the department level favorably (e.g., mean scores >2.90). Mean scores of management at the department level first showed a decline from T1 to T2 and a strong increase from T2 to T3. Multilevel models

show significant improvements in mean scores of management at the department level and general management and organizational support between T3 and T2.

Table 2: Descriptive measures and multilevel models of nurse practice environment, perceived staffing, characteristics of empowerment, burnout and engagement dimensions.

	T1 (2015)	T2 (2018)	T3 (2021)	T2 vs T1		T3 vs T2		T3 vs T1	
	Mean (± SD)	Mean (± SD)	Mean (± SD)	B	SE	B	SE	B	SE
Nurse - physician relations ‡	2.80 (±0.39)	2.75 (±0.41)	2.81 (±0.39)	-0.15**	0.06	0.16**	0.05	0.02	0.05
Management at department level ‡	3.01 (±0.26)	2.98 (±0.23)	3.10 (±0.27)	-0.11*	0.05	0.44***	0.05	0.31***	0.06
General management and organizational support ‡	2.74 (±0.28)	2.74 (±0.26)	2.83 (±0.27)	0.00	0.06	0.31***	0.05	0.31***	0.06
Perceived staffing levels ‡	2.53 (±0.60)	2.34 (±0.62)	2.52 (±0.58)	-0.32***	0.05	0.29***	0.05	-0.04	0.05
Social capital ‡	3.09 (±0.53)	3.09 (±0.48)	3.23 (±0.48)	0.03	0.05	0.28***	0.05	0.30***	0.05
Decision latitude ‡	3.01 (±0.27)	3.01 (±0.29)	3.06 (±0.29)	0.02	0.06	0.15**	0.05	0.17**	0.06
Perceived workload ‡	2.80 (±0.45)	2.93 (±0.50)	2.73 (±0.49)	0.26***	0.05	-0.42***	0.05	-0.15**	0.05
Emotional exhaustion §	1.39 (±1.02)	1.59 (±1.01)	1.50 (±1.15)	0.10	0.05	-0.01	0.05	0.09	0.06
Depersonalisation §	0.68 (±0.74)	0.64 (±0.69)	0.76 (±0.80)	-0.06	0.05	0.16**	0.05	0.10	0.06
Personal accomplishment §	5.28 (±0.76)	5.33 (±0.67)	5.39 (±0.68)	0.07	0.06	-0.03	0.05	0.04	0.06
Vigor §	4.95 (±1.01)	4.80 (±1.15)	4.83 (±1.10)	-0.15**	0.06	0.04	0.05	-0.11*	0.05
Dedication §	5.34 (±0.88)	5.30 (±0.94)	5.35 (±0.91)	-0.04	0.06	0.06	0.05	0.02	0.05
Absorption §	4.84 (±1.18)	4.87 (±1.17)	4.85 (±1.18)	0.02	0.06	-0.02	0.05	0.01	0.06

* p<0.05; **p<0.01; ***p<0.001

‡ continuous scale ranging from 1 to 4; § continuous scale ranging from 0 to 6.

B: standardised beta; SE standard error. Higher scores indicated a stronger agreement, or more favourable ratings, except for emotional exhaustion, depersonalisation and workload where higher scores were indicative of a heavier burden and/or poorer conditions.

A Linear mixed effects model with random intercept per regional department and fixed effects time (T1, T2 and T3) were calculated.

Perceived levels of staffing adequacy declined significantly from T1 to T2 and stabilized again in T3 to the base level. Both social capital and decision latitude were scored favourably by the respondents in T1. Furthermore, multilevel modelling showed a significant increase in scores on both measures by T3. The perceived workload increased from T1 to T2 but dropped significantly at T3. Emotional exhaustion, depersonalization and personal accomplishment were all relatively stable across the measurement periods. Measures of personal accomplishment, vigour, dedication, and absorption were all scored favourably by the nursing staff. Although still favourable, the respondents reported lower scores of vigour over the 3 periods, while dedication and absorption remained stable.

Table 3 shows the results for job satisfaction, intent to stay and nurse-reported quality of care. Overall, compared with T1, scores decreased at T2 and increased at T3. Furthermore, Job-satisfaction levels, quality of care at the department level and during the last round and meeting the patients' needs were all scored favourably. Job satisfaction levels among nurses and nurses' intent to stay at their employer remained stable over the 3 periods of measurement. At T2, 9.9% of nurses indicated they did not have the intent to stay in the nursing profession. This number had increased significantly when compared with T1 (OR 0.96). However, it stabilized again at T3 to the baseline. The proportion of nurses who rated the quality of care on the department level as 'excellent' declined at T2 and then increased significantly from T2 to T3 (OR 1.11). During their last round, 31.5% of nurses described the quality of care as 'excellent' at T3, an improvement over both T1 and T2. Also, the number of nurses who rated the quality of weekly meetings as 'good' and 'excellent' increased significantly. Lastly, more than 93% of nurses indicate they can meet the patient- and caregivers' needs in a

'good' or 'excellent' way. The number of nurses who found they can meet the needs in an 'excellent' way increased significantly at T3 (OR 1.04)

Table 3: Descriptive measures and multilevel models of job satisfaction, intent to stay employer and nursing and self-reported quality of care.

	T1 (2015) % [1]	T2 (2018) % [1]	T3 (2021) % [1]	T2 vs T1 OR [95% CI]	T3 vs T2 OR [95% CI]	T3 vs T1 OR [95% CI]
Job satisfaction satisfied or very satisfied [1] vs dissatisfied or very dissatisfied [0]	92.1	93.2	91.5	0.97 [0.93-1.02]	1.04 [0.99-1.08]	1.01 [0.96-1.06]
Job satisfaction very satisfied [1] vs satisfied or dissatisfied or very dissatisfied [0]	31.2	28.3	32.3	1.01 [0.98-1.04]	0.98 [0.96-1.01]	0.99 [0.97-1.03]
Intent to stay employer [1]	95.7	93.4	94.9	0.98 [0.95-1.00]	1.02 [0.99-1.04]	0.99 [0.97-1.02]
Intent to stay profession [1]	94.6	90.6	94.1	0.96** [0.94-0.99]	1.04* [1.01-1.06]	0.99 [0.97-1.02]
Quality of care department good or excellent [1] vs fair or poor [0]	93.6	92.3	96.2	0.99 [0.96-1.02]	1.04** [1.02-1.07]	1.03* [1.01-1.07]
Quality of care department excellent [1] vs good or fair or poor [0]	20.8	15.8	26.5	0.96* [0.92-0.99]	1.11*** [1.07-1.16]	1.06* [1.01-1.11]
Quality of care last round good or excellent [1] vs good or poor [0]	97.6	96.4	97.6	0.99 [0.97-1.01]	1.01 [0.99-1.03]	1.00 [0.98-1.02]
Quality of care last round excellent [1] vs good or fair or poor [0]	28.4	23.1	31.5	0.95* [0.91-0.99]	1.09*** [1.04-1.14]	1.03 [0.98-1.08]
Quality of weekly meetings good or excellent [1] vs good or fair [0]	76.2	76.3	85.4	1.00 [0.96-1.05]	1.10*** [1.05-1.14]	1.10*** [1.05-1.15]

Quality of weekly meetings excellent [1] vs good or fair or poor [0]	9.2	8.7	13.4	1.00 [0.96-1.03]	1.05** [1.02-1.08]	1.04* [1.01-1.08]
Meet patients and caregivers needs good or excellent [1] vs fair or poor [0]	94.5	93.9	94.0	0.99 [0.97-1.02]	1.00 [0.98-1.03]	1.00 [0.97-1.02]
Meeting patients and caregivers needs excellent [1] vs good or fair or poor [0]	9.5	8.8	12.5	0.99 [0.96-1.02]	1.04* [1.01-1.07]	1.03 [0.99-1.07]

* p<0.05; **p<0.01; *** p<0.001

OR: odds ratio; CI: confidence interval. Higher scores indicated a stronger agreement, or more favorable ratings.

A logit mixed effects model with random intercept per regional department and fixed effects time (T1, T2 and T3) were calculated.

Discussion

The objective of this study was to evaluate the effectiveness of strategies implemented to enhance the nurse practice environment and empower nurses, with a focus on improving the quality of care and staff well-being in a home care organization. Strategies were based on Magnet Hospital research, ANCC Magnet recognition, and the Pathway to Excellence program. Additionally, the organization underwent the Qualicor® accreditation process in 2018 and 2022.

The findings of this study revealed more positive outcomes in 2021 compared to 2018, with reduced variation observed among different departments. These results suggest that the implementation of a standardized approach across all departments was successful. Significant improvements were observed across multiple variables, with the most notable improvements occurring between T2 and T3 following the introduction of the quality improvement program facilitated by Qualicor®.

Specifically, the measurement period in 2018 showed lower scores for intent to stay with the employer, while the measurement period in 2021 demonstrated higher scores for quality on the department and during the last round, particularly in the category of "excellent," compared to the measurement period in 2015. These findings indicate progress and positive changes over time.

Implementing a quality improvement program in a home healthcare organization in Belgium presented several distinct challenges. Firstly, the decentralized structure of the organization, where employees, including nurses, work dispersed and often alone, limited physical interaction, making collaboration and uniformity challenging. Secondly, operating within Belgium's performance-based healthcare context necessitated the effective allocation of resources. This involved investing organizational funds and fully utilizing existing structures like team meetings and training sessions. Lastly, the introduction of the quality improvement program initially raised concerns among home healthcare nurses regarding the nursing profession, as reflected in lower scores for intent to stay with the employer in 2018. However, in the long term, the implementation of the program led to positive outcomes, including the stabilization of nurse retention and improvements in nurse-perceived quality across all areas. These results suggest that the initial doubts were overcome, leading to increased nurse satisfaction and enhanced quality of care in the long run.

The study results also highlight the positive impact of the long-term quality improvement program on the nurse practice environment and elements of empowerment such as decision latitude and social support. It is worth noting that while management at the department level demonstrated favorable involvement in supporting the quality improvement program, mean scores for general management and organizational support were relatively lower in T2. Furthermore, the necessity for workload monitoring in T2 stemmed from the concern that increased workload could diminish engagement, indirectly leading to a decline in the quality of care. Fortunately, the implementation of strategies from 2018 onwards resulted in significant improvements in mean scores for general management and organizational support, as well as perceived workload in T3.

Interestingly, the study observed a higher workload in T2 (2018) than in T3 (2021), contrary to expectations during the COVID-19 pandemic. We propose that this might be due to three key factors: firstly, the profound

influence of the governance and policy framework put in place; secondly, the Qualicor® accreditation process being conducted in T2; and thirdly, a notable decrease of nearly 10% in the total number of patients, attributed to more family members undertaking caregiving roles due to being at home during lockdowns.

Our research findings align with previous studies on the effects of a positive nurse practice environment and empowerment on outcomes. Consistent with existing research, organizations that effectively implement features based on the Magnet® research in their daily practice, demonstrate success in attracting and retaining nurses and other healthcare professionals [4, 5, 32]. These Magnet® principles, characterized by specific qualities and practices, contribute to creating a desirable work environment that appeals to healthcare professionals and fosters their engagement and commitment. The convergence of these findings with prior research underscores the importance of incorporating Magnet principles and strategies in home healthcare settings as well as hospitals to optimize workforce recruitment and retention. When planning the implementation of a long-term quality improvement program, careful attention should be given to the unique context of the organization to effectively manage expectations and identify areas where additional training and support may be required.

Limitations

Several limitations should be acknowledged in this study. The study's reliance on observational data limits causal inference of the strategies' impact [33]. The study focused on a single home healthcare organization, limiting the generalizability of the findings to other settings. Additionally, individual-level matching and changes in department composition between study periods were not considered. Another limitation is that all study variables relied on survey-based measurements, reflecting nursing teams' perceptions rather than objective measures. Further research examining the impact of the implemented strategies and interventions on objective variables would provide additional confirmation of the study results.

Conclusion

In conclusion, this study provides evidence of a positive impact resulting from the implementation of strategies and interventions as part of a broader transformation process in healthcare. The findings demonstrate that the identified strategies and interventions had a significant influence on various aspects of nurse-reported quality, including job satisfaction, intent to stay in the nursing profession, and intent to stay with the current employer. This indicates the effectiveness of the implemented measures in improving the overall quality of nursing practice and fostering a more positive work environment for nurses. These findings highlight the importance of ongoing efforts to implement and evaluate such strategies in healthcare organizations to enhance nurse satisfaction and retention beyond the hospital environment including home care.

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Supplemental Digital Content

Roadmap, Supplemental Digital Content 1, which shows the various strategies and interventions used to improve the nurse practice environment, social capital, decision latitude, workload, care quality, job satisfaction, and retention.

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