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Original Article

Applying the i-PARIHS Framework to Understand Evidence-Based Practice Engagement in Primary Care Nursing: A Cross Sectional Study

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What is known about this topic?

- *Organizational context is a key determinant of nurses' ability to apply evidence in practice, yet most empirical studies have focused on acute rather than primary care settings.*
- *Primary care nurses often encounter structural barriers such as limited time, restricted research access, and insufficient leadership support, which reduce engagement with evidence-based practice (EBP).*
- *Leadership is recognized as an important enabler of evidence use, but the specific behaviours and contextual conditions that optimize its influence in primary care remain poorly understood.*

What this study adds?

- *Leadership support was the strongest predictor of nurses' engagement with EBP in primary care, particularly when leaders provided feedback, modeled evidence use, and allocated resources to support practice.*
- *Nurse managers and specialist nurses showed higher engagement than general practice nurses, indicating that autonomy, mentoring access, and leadership visibility shape implementation confidence.*
- *Training improved EBP engagement but was insufficient without organizational reinforcement, highlighting the need for integrated strategies that align leadership development, resourcing, and protected learning time.*

ABSTRACT

Objective: This study examined how organizational context influences nurses' engagement with evidence-based practice in primary care.

Methods: A cross-sectional design was utilized. Data were collected from 652 registered nurses between July 2022 and December 2023. Organizational context was measured using the Alberta Context Tool, and engagement with evidence-based behaviours was assessed with the Evidence-Based Practice Implementation Scale. Regression and moderation analyses (PROCESS Model 1) tested whether resource availability strengthened the effect of leadership support on engagement.

Results: Leadership support was the strongest predictor of engagement with evidence-based practice ($\beta = .012$, $P = .046$). The model explained 7% of the variance in engagement ($R^2 = 0.07$). Key organizational barriers were time pressure (76.8%), heavy workload (71.2%), and limited access to research resources (63.5%). Nurse managers (M = 4.59) and specialist nurses (M = 4.45) reported significantly higher engagement than general practice nurses (M = 3.91, $P < .001$). Moderation analysis confirmed that the impact of leadership was greatest in resource-rich environments.

Conclusion: Organizational context, especially leadership visibility and resource sufficiency, is central to embedding evidence-based practice in primary care nursing. Strengthening leadership capability, ensuring protected learning time, and improving infrastructure for knowledge access are essential for sustaining evidence-based practice engagement.

Keywords: Evidence-based practice, i-PARIHS, knowledge implementation, leadership, organizational context, primary care nursing

Introduction

Embedding evidence-based practice (EBP) in nursing, through the integration of research evidence, clinical expertise, and patient preferences, is central to delivering safe and effective nursing care.[1,2] Evidence-based practice, defined as the systematic use of research and professional knowledge in clinical decision-making, has gained recognition as a core component of high-quality healthcare.[3] Primary care nurses provide integrated, person-centered services across general practice, district nursing, community health, and public health roles.[3,4] These services occupy a pivotal position within healthcare delivery but often operate within complex and decentralized organisational environments that present unique challenges for embedding evidence into daily practice.[5]

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Studies examining EBP have historically concentrated on hospital-based contexts, where structured research infrastructure and closer links with academic institutions often facilitate engagement with evidence.[6,7] Less is known about how organisational conditions influence the use of evidence across primary care, despite its critical role in the National Health Service (NHS) and its distinct challenges of staffing, resource allocation, and professional autonomy.[8] Nurses working in these settings frequently report limited access to research databases, insufficient time for professional development, and inadequate institutional support for evidence use.[9,10] These constraints limit the translation of national evidence-based policies into routine care, creating disparities between professional standards and clinical realities.[11]

Leadership is consistently identified as a central influence on evidence uptake, with leaders who actively promote research use, role model evidence application, and create supportive learning cultures contributing positively to EBP.[12] Organisational cultures that encourage inquiry and reflective practice further enable staff to challenge established norms and integrate evidence-based improvements.[13] Continuing professional development has also been promoted as a mechanism to enhance critical appraisal and application skills, yet access to these opportunities remains uneven, with community-based nurses often excluded from academic partnerships available to hospital staff.[14] Addressing these organisational influences is essential for strengthening knowledge mobilisation in primary care. Without understanding how leadership, culture, evaluation, collaboration, and resources interact to shape engagement, strategies to enhance knowledge use risk being poorly targeted or ineffective. This study aimed to examine how organisational context influences nurses' engagement with EBP in primary care.

Research Questions

1. Which aspects of organisational context predict nurses' engagement with EBP in primary care?
2. How does resource availability moderate the relationship between leadership support and nurses' engagement with EBP?
3. How do levels of engagement with EBP differ across primary care nursing roles?

Methods

Study Design

This study utilises a national cross-sectional design. Cross-sectional designs provide a snapshot of practices at a specific point in time and enable analysis of variations across professional roles and service settings.[15] Measurement of key constructs was informed by 2 validated instruments and the Promoting Action on Research Implementation in Health Services (i-PARIHS) framework,[16] described in the following sections.

Conceptual Framework—the i-Promoting Action on Research Implementation in Health Services Model

The study was guided by the i-PARIHS framework.[16] The framework conceptualises successful implementation as the result of interaction among 4 constructs: the innovation being introduced, the recipients who enact it, the context in which implementation occurs, and the facilitation that enables change. Within this structure, *context* refers to the organisational and social conditions that enable or constrain the use of evidence in practice. It encompasses leadership, culture, evaluation systems, and resources that shape how individuals interpret and apply knowledge in clinical settings.[16] This study focused on the contextual domain of i-PARIHS, examining how leadership support, organizational culture, evaluation mechanisms, and resource availability influence nurses' engagement with EBP. Engagement was conceptualised as the behavioural expression of successful implementation and was measured using validated tools described in the section below. Specifically, the Alberta Context Tool (ACT) captured organisational conditions, and the Evidence-Based Practice Implementation Scale (EBPIS) assessed engagement with evidence-based behaviors.

Drawing on i-PARIHS, the study hypothesised that leadership support and organisational culture would predict engagement with EBP and that the effect of leadership support would be stronger when resource availability was high. This aligns with the i-PARIHS proposition that contextual factors interact dynamically, such that the influence of leadership is contingent on the organisational environment. The framework informed the study's theoretical model, variable selection, and analytical approach through regression and moderation testing.

Figure 1 presents the conceptual framework underpinning this study. It illustrates how organisational context, derived from the i-PARIHS framework, influences nurses' engagement with EBP in primary care. Leadership support, organizational culture, and evaluation mechanisms are conceptualised as the primary contextual determinants of engagement. Resource availability moderates the relationship between leadership support and engagement, demonstrating that effective leadership is dependent on adequate organisational infrastructure. Engagement with EBP, measured by the EBPIS, represents the behavioural expression of successful EBP. The framework highlights the i-PARIHS proposition that contextual factors interact dynamically rather than operate independently to shape implementation outcomes.

Study Setting and Participants

The study focused on primary care services. Primary care encompasses general practice, district nursing, community nursing, health visiting, and public health nursing services. These services are coordinated through primary care networks (PCNs), which aim to promote integrated, multidisciplinary, and person-centered care at the community level. Eligible participants were registered nurses actively working in clinical roles within these primary care settings.

Sample Size and Recruitment

Sample size estimation followed Cochran's formula for large populations, which indicated that a minimum of 385 participants was required to achieve a 95% CI with a 5% margin of error.[17] In line with recommendations from recent national nursing workforce surveys,[18] the target sample was increased to 600 to improve statistical precision, enhance representativeness across subgroups, and account for potential non-response. Previous implementation studies in nursing have typically reported completion rates of 55%-70% when using voluntary online surveys.[19] Increasing the target sample therefore ensured adequate power

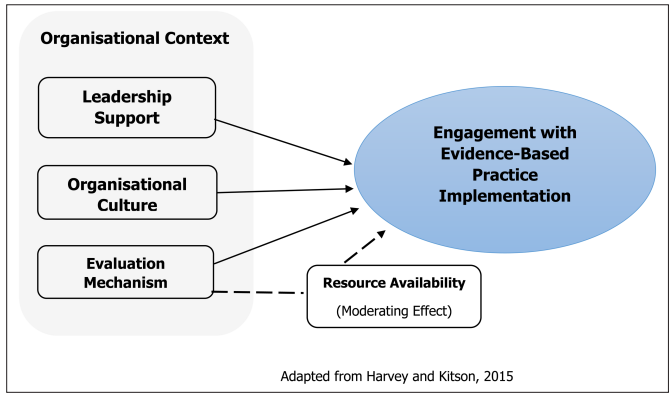

Figure 1. Conceptual framework: Application of the i-PARIHS model in primary care nursing.

for subgroup analyses across professional roles, regions, and levels of training and reduced the risk of type 2 error in regression analyses. A stratified sampling approach was employed to achieve proportional representation across major nursing sub-specialties within primary care, including general practice, district nursing, community nursing, specialist nursing, and nurse management. Strata were defined based on workforce data from NHS England PCNs, and invitations were distributed proportionally within each group. Within strata, participants were recruited using randomised distribution lists provided by professional associations and online networks, ensuring that all eligible nurses had an equal opportunity to participate. This approach reduced selection bias and increased the representativeness of the final sample. A total of 652 nurses completed the survey, exceeding the recruitment target. As recruitment was conducted through multiple open online professional networks, a precise response rate could not be determined. Nonetheless, the achieved sample surpassed the minimum sample size estimated for statistical precision and is comparable to participation levels typically observed in national nursing workforce studies.[20]

Data Collection

Data collection took place between July 2022 and December 2023 using Qualtrics, a secure, web-based survey platform that complies with GDPR. The platform allowed adaptive question sequencing, secure storage of anonymised responses, and prevention of duplicate submissions through IP filtering. The survey was designed to be completed within approximately 20 minutes and included sections on participant demographics and organisational factors related to EBP. Demographic data included gender, age, highest educational qualification, years of nursing experience, primary professional role, primary workplace setting, and access to formal training in EBP.

Two validated instruments (EBPIS and ACT) were used to collect data. The EBPIS, originally developed by Melnyk et al,[21] was used to assess nurses' engagement in evidence-based behaviours, including generating clinical questions, appraising research, applying findings to practice, and mentoring colleagues in evidence use. The EBPIS comprises 18 items rated on a 5-point Likert scale ranging from 1 (never) to 5 (very often). Scores are averaged to create a composite mean, with higher values indicating greater engagement in evidence-based behaviours. The EBPIS has consistently demonstrated strong psychometric performance, with reported Cronbach's alpha coefficients ranging from 0.92-0.95 across varied clinical contexts.[21] This study employed the behavioural frequency version of the EBPIS, maintaining fidelity to the validated implementation measure rather than later attitudinal adaptations using "strongly disagree-strongly agree" anchors. In the present study, the EBPIS demonstrated excellent internal consistency (Cronbach's alpha = 0.94).

To examine organisational influences on EBP, the study utilised the ACT, developed by Estabrooks et al.[22] The ACT captures 12 contextual domains considered critical for knowledge implementation: leadership, organisational culture, evaluation, social capital, formal and informal interactions, and structural and electronic resources, as well as organisational slack in time, space, and human resources. Each item is rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with higher scores reflecting more supportive organisational conditions. The ACT has demonstrated strong psychometric performance across settings, with reported Cronbach's alpha values ranging from 0.54-0.91 depending on the domain.[22]

For both instruments, higher mean scores represent more favourable conditions. Specifically, for the ACT, scores closer to the maximum value within each domain for example, 30 for leadership, culture, and evaluation, reflect stronger contextual support for evidence use, while lower values indicate weaker organisational environments. The ACT domains have demonstrated acceptable internal consistency, with Cronbach's alpha values ranging from 0.54-0.91 as previously reported.[22] Instruments were linguistically adapted for NHS primary care settings for example, replacing "unit" with "practice" and "manager" with "clinical lead." Internal consistency coefficients for the ACT domains in the present study were acceptable to good: leadership ($\alpha = 0.88$), organisational culture ($\alpha = 0.86$), evaluation mechanisms ($\alpha = 0.84$), social capital ($\alpha = 0.82$), and structural and electronic resources ($\alpha = 0.79$).

Data Analysis

Quantitative data were analysed using IBM SPSS Statistics, version 28 (IBM SPSS Corp.; Armonk, NY, USA).[23] Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarise demographic and professional characteristics. Group differences were examined using independent samples *t*-tests and 1-way analysis of variance (ANOVA). Post hoc comparisons following ANOVA were conducted using the Bonferroni correction to account for multiple testing.

Multiple linear regression analysis was applied to identify organisational predictors of engagement in EBP. Continuous variables were entered directly into the model after confirming normality and linearity. Categorical variables, including professional role, primary workplace setting (urban or rural), and completion of formal EBP training (yes or no), were dummy coded before inclusion. For professional role, general practice nurses were designated as the reference category, given their predominance within the sample and relevance as a comparator group. For workplace setting, urban was used as the reference category, and for training status, no formal training served as the reference category. Variance inflation factors were examined to assess multicollinearity, with values below 5 indicating acceptable independence among predictors.[24,25]

Mediation and moderation analyses were performed to further examine relationships among organisational factors. These analyses were conducted in line with the PROCESS Macro (Model 1) developed by Hayes.[25] Moderation analysis tested whether resource availability moderated the effect of leadership support on engagement with knowledge implementation. The analysis included the interaction term (leadership support × resource availability) while all predictor variables were mean-centered to minimise multicollinearity.[26,27] Conditional effects of leadership support were examined at low, medium, and high levels of resource availability (1 standard deviation below the mean, at the mean, and 1 standard deviation above the mean).[27,28]

Ethical Considerations

Ethical approval for the study was obtained from the University of University of Beds Research Ethics Committee (Date: February 22, 2022 Approval No: 201864). Participants provided informed consent electronically before completing the survey. Confidentiality was maintained through anonymised data handling, and participation was voluntary with the option to withdraw at any stage.

Results

Participants' Demographic Characteristics

A total of 652 nurses working across primary care settings completed the survey. Most participants were female and held a bachelor's degree or higher. The sample represented a wide age range, with the largest proportion aged 31-50 years. General practice nurses constituted the largest professional group, followed by district and community nurses. Around a third of participants had between 5 and 10 years of experience, and nearly two-fifths had more than 10 years. Just over half worked in urban primary care networks, and 6 in 10 reported having received formal training in EBP. Table 1 summarises the detailed demographic characteristics of the sample.

Table 1. Participants' Demographic Characteristics (N = 652)

Characteristics	n	%
Gender		
Male	112	17.2
Female	538	82.5
Prefer not to say	2	0.3
Age (years)		
21-30	133	20.4
31-40	233	35.7
41-50	183	28.1
51-60	85	13.0
>60	18	2.8
Highest educational qualification		
Diploma in Nursing	102	15.6
Bachelor's Degree	349	53.5
Postgraduate Diploma/Certificate	118	18.1
Master's Degree	76	11.7
Doctoral Degree	7	1.1
Professional role		
General practice nurse	268	41.1
District nurse	159	24.4
Community health nurse	140	21.5
Specialist nurse	58	8.9
Nurse manager	27	4.1
Years of experience		
<5 years	106	16.3
5-10 years	222	34.0
11-20 years	204	31.3
>20 years	120	18.4
Primary workplace setting		
Urban PCN	368	56.4
Rural PCN	284	43.6
Formal training in EBP/KI		
Yes	393	60.3
No	259	39.7

PCN, primary care networks; EBP/KI, Evidence-Based Practice, Knowledge Implementation.

Table 2. Organizational Support for EBP

ACT Domain	Mean (SD)
Leadership	23.8 (4.3)
Culture	22.5 (4.5)
Evaluation	22.2 (4.8)
Social capital	21.9 (4.6)
Structural and electronic resources	14.2 (3.1)

ACT, Alberta Context Tool; EBP, evidence-based practice.

Leadership Support and Engagement with Evidence-Based Practice

Leadership support recorded the highest mean score among the ACT domains (M = 23.8, SD = 4.3). Regression analysis demonstrated a positive relationship between leadership support and engagement with knowledge implementation behaviours (r = 0.36, P < .001). Approximately 68% of respondents indicated that their line managers or team leaders consistently encouraged the use of research findings or modeled evidence-based decision-making in daily practice. Table 2 summarises the ACT domain means related to organisational support for EBP.

Subgroup analysis showed that district nurses and specialist nurses reported significantly stronger leadership support than general practice nurses (F (4, 647) = 4.86, P < .001). Statistically significant differences were also observed across organisational culture (F (4, 647) = 3.72, P = .006) and evaluation mechanisms (F (4, 647) = 3.49, P = .008). Post hoc Bonferroni comparisons indicated that nurse managers and specialist nurses had higher mean scores than general practice nurses. Figure 2 visualises these findings, illustrating the distribution of leadership, culture, and evaluation scores across professional roles. Each box represents the interquartile range, with the horizontal line marking the median score. Nurse managers and specialist nurses demonstrated higher median scores across all domains, suggesting greater organisational support for EBP compared with general practice nurses. These visual patterns reinforce the observed statistical differences and indicate that organisational conditions for evidence use are strongest among those with leadership or specialist responsibilities.

Organizational Barriers to Evidence-Based Practice

Results indicated that the most frequently reported organisational barriers were time constraints (76.8%), high workload (71.2%), and limited access to research resources (63.5%). Lack of research mentorship (53.5%) and insufficient institutional support (50.8%) were also commonly cited. The ACT domain for structural and electronic resources recorded the lowest average score (M = 14.2, SD = 3.1), reflecting challenges in resource access. Figure 3 presents the distribution of key organisational barriers.

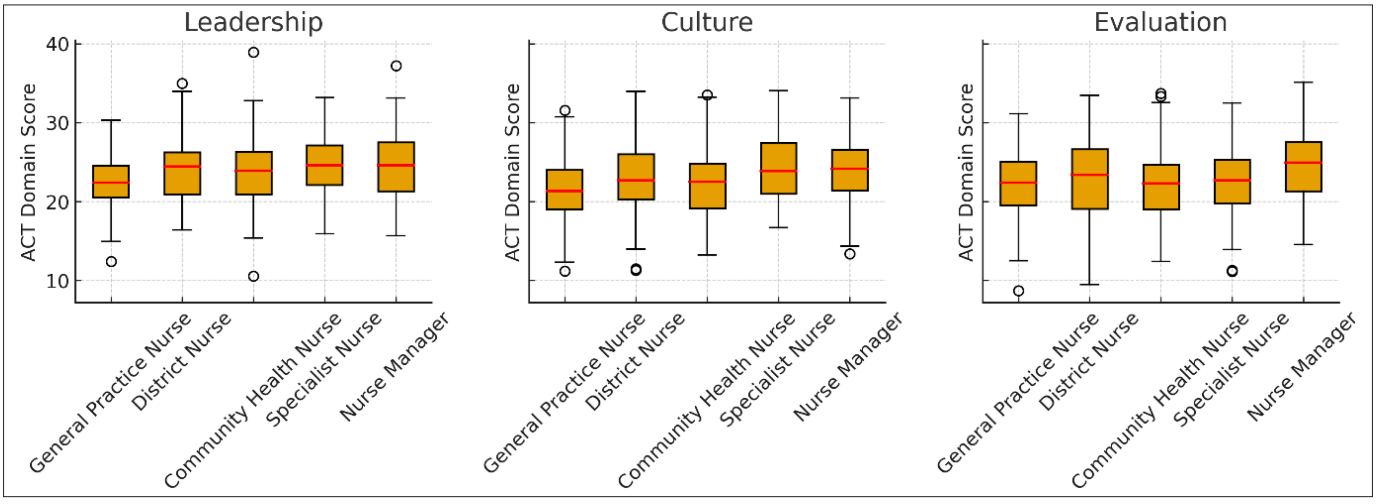

Figure 2. Organisational support for evidence-based practice by professional role.

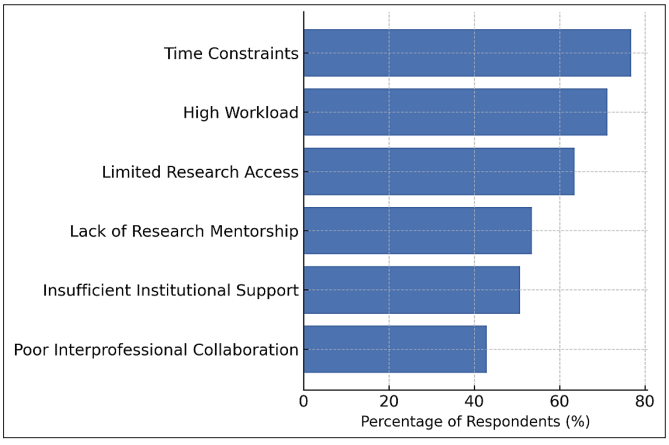

Figure 3. Organisational barriers to evidence-based practice.

Influence of Professional Role on Evidence-Based Practice Engagement

A 1-way ANOVA was conducted to examine the differences in EBP engagement across professional roles. The results indicated statistically significant differences in mean engagement scores among the 5 groups (F (4, 647) = 8.95, $P < .001$). Post hoc Bonferroni comparisons revealed that nurse managers (M = 4.59, SD = 0.69) and specialist nurses (M = 4.45, SD = 0.67) scored significantly higher than general practice nurses (M = 3.91, SD = 0.92). Mean scores for all professional groups are presented in Table 3.

Impact of Training on Evidence-Based Practice

Training in EBP was positively associated with nurses' engagement in EBP behaviours. Nurses who had completed formal training reported significantly higher engagement (M = 4.18, SD = 0.76) than those without training (M = 3.46, SD = 0.91), t (650) = 6.91, $P < .001$. To further examine this relationship, 2 regression models were tested. Model 1 included training status as the sole predictor of engagement, while Model 2 added organisational variables (leadership support, organizational culture, evaluation mechanisms, social capital, and resource availability). Model 1 showed that training alone accounted for 9% of the variance in engagement ($R^2 = .09$, $P < .001$). However, when organisational factors were added in Model 2, the explanatory power increased modestly to 7% ($R^2 = .07$), and training was no longer a significant independent predictor ($\beta = 0.013$, $P = .768$). Leadership support remained the only statistically significant predictor of engagement ($\beta = 0.012$, $P = .046$). The regression results for both models are presented in Table 4.

Moderation Analysis

The moderation analysis tested whether resource availability influenced the strength of the relationship between leadership support and engagement with EBP. The interaction between leadership support and resource availability was statistically significant ($\beta = 0.009$, $P = .032$, 95% CI [0.001, 0.018]), indicating that the effect of leadership on engagement varied depending on the level of available resources. As shown in Figure 4, engagement increased as leadership support strengthened, but this effect was more pronounced in resource-rich environments. Under high resource conditions (+1 SD), the slope was steeper, reflecting stronger leadership impact, whereas the relationship weakened under low resource conditions (−1 SD). This pattern suggests that leadership behaviours are most effective when organisational environments provide sufficient time, staffing, and access to infrastructure to support EBP.

Discussion

Findings from this study demonstrate that organisational context, particularly leadership support and resource availability, plays a decisive

Table 3. Evidence-Based Practice Implementation Engagement Scores by Professional Role

Professional Role	Mean ± SD	Post Hoc Comparison
Nurse manager	4.59 ± 0.69[a]	Significantly higher than general practice nurse ($P < .001$)
Specialist nurse	4.45 ± 0.67[a]	Significantly higher than general practice nurse ($P < .001$)
District nurse	4.28 ± 0.72[ab]	–
Community health nurse	4.15 ± 0.76[b]	–
General practice nurse	3.91 ± 0.92[c]	–

Values represent mean ± standard deviation. Means sharing different superscript letters differ significantly at $P < .05$ according to Bonferroni post hoc tests. F (4, 647) = 8.95, $P < .001$.

Table 4. Multiple Regression Analysis Predicting EBP Engagement (N = 652)

Predictor	*B*	SE B	β	95% CI for B	VIF	*P*
Model 1						
Constant	3.46	0.04	—	3.39, 3.53	—	<.001
Formal EBP training (Yes/No)	0.33	0.05	0.31	0.23, 0.43	1.00	<.001
Model statistics	$R^2 = .09$	Adj. $R^2 = .09$	F (1650) = 47.76	$P < .001$	Durbin–Watson = 1.97	
Model 2						
Constant	2.91	0.38	—	2.16, 3.66	—	<.001
Leadership support	0.012	0.006	0.14	0.00, 0.024	1.62	.046
Organizational culture	0.010	0.006	0.12	−0.002, 0.022	1.58	.096
Evaluation mechanisms	0.008	0.005	0.10	−0.002, 0.018	1.54	.110
Social capital	0.007	0.006	0.08	−0.004, 0.018	1.47	.243
Resource availability	0.005	0.005	0.06	−0.005, 0.015	1.38	.320
Formal EBP training (Yes/No)	0.013	0.044	0.01	−0.074, 0.100	1.09	.768
Model statistics	$R^2 = .07$	Adj. $R^2 = .06$	F (6645) = 8.01	$P < .001$	Durbin–Watson = 1.95	

β = standardized coefficient; *B* = unstandardized coefficient; SE *B* = standard error of B. Model 1 tests training status only. Model 2 includes training plus organizational variables.
EBP, evidence-based practice; VIF, variance inflation factor.

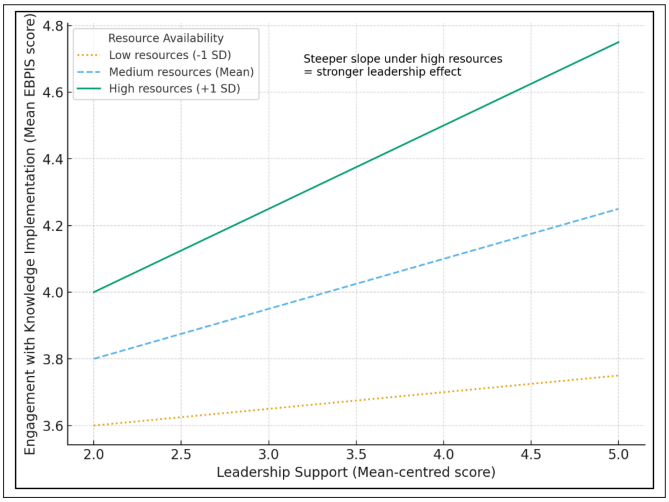

Figure 4. Moderating effect of resource availability on the relationship between leadership support and engagement with evidence-based practice. Note: Solid line: High resources (+1 SD); Dashed line: Medium resources (Mean); Dotted line: Low resources (−1 SD).

role in shaping nurses' engagement with EBP in primary care. Guided by the i-PARIHS framework, the analysis supports the view that successful implementation depends on the interaction between individual capability and the organisational conditions that enable evidence use.[29] Leadership emerged as the most influential predictor of engagement, confirming that facilitative leadership behaviours are crucial to translating evidence into practice.

Specific leadership actions that enhanced engagement included providing regular performance feedback, allocating time and resources for reflective learning, modeling the use of research in clinical decision-making, and recognising staff contributions to quality improvement. These relational and practical behaviours created an environment where nurses felt valued, informed, and confident to apply evidence. Studies in acute and community nursing similarly report that visible, inclusive leadership builds professional trust, fosters inquiry, and normalises evidence-informed decision-making.[30,31] Leadership within i-PARIHS is conceptualised as a facilitative process rather than a positional role, aligning with these findings that the most effective leaders are those who actively engage with staff and integrate evidence use into everyday team routines.

Variation in leadership influence across professional roles was also evident. Nurse managers and specialist nurses reported higher engagement and perceived leadership support than general practice nurses. This pattern suggests that professional autonomy, exposure to managerial structures, and access to mentorship enhance EBP participation. General practice nurses, often working within small, medically led teams, may experience fewer opportunities for professional dialogue or structured evaluation. Addressing these disparities requires expanding leadership development beyond managerial levels to include distributed and peer-led approaches within community and general practice teams.[31] Previous work has shown that peer facilitation and shared governance models can enhance EBP adoption in settings with limited formal leadership visibility.[32]

Resource availability further amplified the effect of leadership. The moderation analysis demonstrated that leadership was most effective when time, staffing, and infrastructure were sufficient to support practice change. Limited resourcing constrained leaders' ability to maintain feedback systems and professional development opportunities, confirming that contextual capacity determines whether leadership initiatives can succeed.[33] Organisational structures such as workload management policies, interprofessional collaboration frameworks, and routine audit mechanisms therefore act as critical enablers of leadership effectiveness. Policies that promote team-based reflection and joint clinical learning are especially valuable in sustaining implementation.[34]

Training in EBP was associated with higher engagement in unadjusted analyses but was not an independent predictor once organisational factors were introduced. This indicates that education builds capability but cannot independently drive behavioural change without a supportive organisational climate. Training must therefore be embedded within broader strategies that link learning with mentorship, peer support, and performance review. Similar conclusions have been reported in studies showing that organisational reinforcement is essential for the translation of EBP skills into routine clinical behaviour.[34]

Overall, these findings advance understanding of how leadership and organisational readiness interact to influence practice in primary care. Leadership is not an isolated driver of change but part of a broader contextual ecosystem that includes culture, resources, and evaluation structures. Creating environments that align these factors is vital for achieving sustainable evidence implementation and reducing variation in care quality across primary care settings.

Strengths and Limitations

This study offers one of the largest national datasets examining organisational influences on EBP in primary care nursing, a field where empirical work remains limited. Use of validated instruments, supported by the i-PARIHS framework, strengthens the construct validity of the measures and provides a theoretically informed basis for interpreting the findings. The stratified sampling strategy allowed representation across major primary care nursing roles, which enabled meaningful subgroup comparisons. The inclusion of moderation analysis also adds analytic depth by demonstrating the conditional nature of leadership influence, rather than assuming uniform effects across contexts.

There are, however, important limitations. The cross-sectional design restricts causal inference, and associations between leadership and engagement may be bidirectional. Self-reported data introduce potential recall and social desirability bias, particularly in perceptions of leadership and organisational culture. Participation was voluntary, raising the likelihood that nurses already interested in EBP were more inclined to respond. Although the large national sample enhances representativeness, some professional subgroups were smaller and may have limited statistical power for subgroup comparisons. Quantitative measures captured organisational characteristics but not the deeper facilitation processes that mediate change. Further longitudinal and mixed-methods research could explore these mechanisms and assess how contextual conditions evolve over time to influence sustained implementation.

Implications for Practice and Policy

Strengthening leadership capability should be prioritised as an organisational responsibility rather than an individual attribute. Leadership development programmes that emphasise feedback, modeling of evidence use, and structured reflection can create psychologically safe environments where nurses apply research with confidence. Distributed leadership across all levels of the workforce would enable community and general practice nurses to influence change within their teams.

Workforce and policy planners should recognise that leadership effectiveness is dependent on adequate resources. Protected learning time, digital infrastructure, and manageable workloads are prerequisites for engagement with evidence. Integrating these elements into PCN development plans could reduce variation in implementation capacity across services.

Education and policy initiatives should also align training with organisational strategy. Evidence-based practice competencies must be reinforced through mentorship, peer learning, and performance evaluation systems. Embedding leadership, resourcing, and evaluation within a unified framework would enable primary care organisations to achieve sustained, system-wide improvements in the use of evidence.

Conclusion

Leadership support represents a cornerstone of successful EBP in primary care nursing. Behaviours that involve active communication, consistent feedback, resource allocation, and visible role modeling enable nurses to integrate evidence into everyday decisions. The effectiveness of these behaviours, however, depends on the broader organisational environment. Sufficient resources, collaborative structures, and learning opportunities are essential to transform leadership intent into sustained engagement. Differences across professional roles highlight the need for more inclusive leadership strategies that empower all nurses, including those in general practice, to participate in implementation activities. Training contributes to confidence and knowledge, but without supportive leadership and infrastructure, these gains remain limited. The findings reinforce the i-PARIHS proposition that successful implementation arises from the alignment of leadership, culture, and contextual readiness. Policy and workforce reforms that integrate leadership development, resource planning, and evaluation mechanisms will be critical to achieving consistent, evidence-informed nursing care across primary care settings.

Data Availability Statement: The data that support the findings of this study are available on request from the corresponding author.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of University of Beds (Date: February 22, 2022, Approval No.: 201864).

Informed Consent: Written informed consent was obtained from participants who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – J.O., A.N.; Design – J.O., A.N.; Supervision – J.O.; Resources – J.O.; Materials – A.N., U.C.; Data Collection and/or Processing – J.O., U.C.; Analysis and/or Interpretation – J.O., U.C., A.N.; Literature Search – J.O.; Writing – J.O., A.N., U.C.; Critical Review – J.O., A.N.

Declaration of Interests: The authors declare that they have no competing interest.

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