DOI
https://doi.org/
10.18690/um.fov.3.2026.30

ISBN
978-961-299-124-1

Barriers in the Implementation of Family and Community Nurse Model Using Consolidate Framework for Implementation Research: Findings from a Qualitative Study

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The growing burden of chronic conditions requires integrated models of care across hospital and community settings. The Family and Community Nurse (FCN) role has been introduced in Italy to support continuity of care and prevention, yet its implementation remains uneven. This study aimed to explore barriers influencing the implementation of FCN model from nurses' perspectives and to identify implementation strategies using the CFIR–ERIC approach. A descriptive qualitative study was conducted in a North-East Italian region. Fourteen FCNs participated in semi-structured interviews. Data were analysed using deductive content analysis and mapped to the five CFIR domains. Barriers were identified across innovation, inner and outer settings, individuals and process, including organisational misalignment, limited resources, insufficient role recognition, low community awareness and difficulty in adopting preventive practices. CFIR–ERIC matching supported the identification of context-sensitive strategies to guide future implementation.

Keywords:
barriers,
family and community nursing,
implementation,
strategies,
qualitative study

University of Maribor Press

1 Introduction

Chronic diseases represent a growing global burden for healthcare systems, requiring increasing efforts in prevention, health education, early diagnosis, and timely treatment (World Health Organization, 2023). More than half of adults over 65 live with at least two chronic conditions, a situation associated with higher risks of hospital readmissions, loss of autonomy, reduced quality of life, and rising healthcare costs (Endalamaw et al., 2024). People with chronic conditions frequently experience fragmented care, limited holistic support, and insufficient guidance from healthcare providers. This fragmentation challenges continuity, access to care, and sustained therapeutic relationships (Endalamaw et al., 2024). World Health Organization (WHO) has emphasized the need for people-centred integrated care models that promote proactive management, continuity, and coordination across care settings (World Health Organization, 2018). Strengthening primary health care and shifting from hospital-centred to integrated hospital–community models have been identified as key strategies for chronic disease management (Azzellino et al., 2025). Nurses play a central role, particularly through the Family and Community Nurse (FCN) model, which focuses on prevention, health promotion, and continuity of care at the community level (Gasperini et al., 2023). In countries such as Italy and Spain, the FCN role requires specialized postgraduate training and has been formally recognized within national health system reforms. However, in Italy the implementation of the FCN model remains fragmented, and few studies have explored FCNs' experiences during this process. Existing literature suggests that successful implementation depends not only on regulatory frameworks, but also on cultural, organizational, and professional factors, including interprofessional collaboration, recognition of roles, and responsiveness to local needs (Torrens et al., 2020).

1.1 Framework of implementation science

Implementation science offers a range of theories and frameworks that help to identify the barriers and facilitators and strategies to improve the implementation.

The Consolidated Framework for Implementation Research (CFIR) was used in the current study. This framework provided a shared taxonomy of 48 constructs related to implementation across five domains (Damschroder et al., 2022). The domains

include innovation (in this case, implementation of family and community model), the inner setting (the healthcare settings), the outer setting (the context in which the healthcare setting resides), individual characteristics (healthcare staff), and the processes used for implementing the intervention or process (Damschroder et al., 2022). The CFIR could help to identify the barriers, facilitators and strategies to improve the implementation and could be used in healthcare research. The Expert Recommendations for Implementing Change (ERIC) (Powell et al., 2015) is a refined compilation of implementation strategy terms and definitions, systematically gathered from a wide range of stakeholders with expertise in implementation science and clinical practice. The CFIR-ERIC Matching Tool (Waltz et al., 2019) was developed based on expert consensus and was utilised to help guide choice of theoretically informed matching strategies to address CFIR barriers. It provides a prioritised list of strategies to consider based on researchers' knowledge of potential CFIR barriers.

1.2 Aim

The aim of the study was to explore barriers influencing the implementation of the FCN model in Italy from nurses' perspectives, mapped across the CFIR domains and to develop strategies based on the ERIC-CFIR tool.

2 Methods

2.1 Study Design

A descriptive qualitative study was conducted in June and July 2025 and reported according to the Consolidated criteria for Reporting Qualitative research (COREQ) (Tong et al., 2007).

2.2 Setting and Participants

The study was conducted in the North-East Region of Italy, regional context encompassing three healthcare authorities, serving more than 1 million of citizens in 2023 (ISTAT, 2025). The FCN model had been introduced according with policy directive (Ministero della Salute, 2022). A purposeful sample (Patton, 2014) of nurses were involved. The eligible criteria were nurses who (i) were active nurses at time of

the study and (ii) gave the written consent to participate in the study. Fourteen nurses were contacted and all of them accepted to participated in the study. The purposeful sampling was ended when data saturation was reached, as judged by researchers (see authors) as when dominant themes were perceived to be complete, and no others emerged from the interviews (Morse, 1995). Saturation was monitored throughout the analysis and confirmed through team discussion.

2.3 Data collection

Interviews were conducted between June and July 2025. An audio-recorded open-ended interview was performed exploring the barriers and facilitators the implementation process. The interview guide included: (a) demographic/professional data and factors hindering or promoting such implementation. Topics included the perceived current degree of implementation, barriers and facilitators. Interviews were conducted by a researcher (GM). Another female researcher (AP), who had an advance expertise in qualitative research, supervised the process. No relationship with participants was established before the development of the study. Participants were informed only about the working position of the researchers and the aims of the study. The interviews were conducted via Zoom or Teams platforms with only the researcher and the participant present and lasted from 30 minutes to 60 minutes, were audio-recorded with consent, and transcribed verbatim. No interview was repeated.

2.4 Data analysis

The professional data was summarised with descriptive statistics (means, standard deviations (SD), frequencies and percentages). A content analysis framework (Elo & Kyngäs, 2008) was used, a systematic approach allowing a detailed description of the phenomenon to be obtained and based upon three phases: preparation, organization and reporting. The researcher (GM), who performed the interviews, transcribed the interviews verbatim. Subsequently, the researcher (GM) read the text individually to gain a general understanding of the data and underlined the units of analysis as sentences or words with meaning with a deductive approach by coding data with predefined categories based on the CFIRs' domains. Another researcher reviewed and validated the analysis (AP). The codes were then abstracted into subthemes and themes by formulating a general description of their contents. The themes were

aligned with the domains of CFIR. Consensus discussions were held to resolve disagreements, develop a shared understanding and to refine the subthemes and themes. Finally, CFIR-ERIC Matching Tool was used to create matching strategies to address prioritised barriers and amplify prioritised facilitators.

3 Results

3.1 Demographics of Participants

Fourteen nurses were involved in the study. They were mostly female (12/14) with a with a mean age of 51.1 (SD 8.3). Most of them had a nursing diploma (10/14) and four nurses had completed a postgraduate education course. Overall, they had a mean experience in community setting of 15.9 (SD 7.2).

3.2 Barriers of implementation

The analysis identified barriers affecting the implementation of the FCN model. Findings are presented in Table 1 according to the CFIR domains and illustrate how organizational, professional, and contextual factors interact in shaping the implementation process.

Table 1: Barriers Themes

CFIR domain (Costructs)	Barriers Themes
Innovation (Adaptability)	Experiencing differences between FCN model and organizational principles
Outer Setting (Patient needs & Resources, Cosmopolitanism)	**Coping with increasing care demands and complexity of citizens**
	Interacting with a poorly informed community
Inner Setting (Culture, Compatibility, Available Resources)	**Undermining model sustainability through structural and organizational shortages**
	Facing internal resistance and poor recognition of nursing work
Individuals (Knowledge & Beliefs about the Intervention)	Navigating limited readiness for the FCN role
Process (Engaging -Innovation Recipients)	Failing to implement preventive and proactive approaches

Legend: FCN, family and community nurse.

Seven themes were identified across five domains of CFIR. Within the Innovation domain, the theme "Experiencing differences between FCN model and organizational principles" reflects nurses' perceptions that the FCN model is not fully integrated into the strategic goals of their organizations. This misalignment was often reinforced by staff rotation practices, which weakened continuity and diluted the specific identity of the FCN role. Two themes were identified within the Outer Setting domain. The theme "Coping with increasing care demands and complexity of citizens" reflects the growing workload associated with earlier hospital discharges and the challenges of responding to culturally and socially diverse populations. The theme "Interacting with a poorly informed community" points to limited awareness of the FCN model among citizens, often accompanied by passive attitudes that hinder proactive engagement. In the Inner Setting domain, two main themes emerged. The theme "Undermining model sustainability through structural and organizational shortages" captures persistent difficulties related to limited staffing, excessive administrative workload, inadequate skill mix, and the lack of suitable facilities. These conditions constrained nurses' capacity to focus on community-oriented and preventive activities. The second theme, "Facing internal cultural resistance and poor recognition of nursing work", describes how organizational cultures that prioritize task-based and highly visible activities tend to marginalize relational, coordination, and preventive components of the FCN role, contributing to feelings of low professional recognition. In the Individuals domain, the theme "Navigating limited readiness for the FCN role" highlights gaps in professional preparation. Participants reported insufficient education in community and inter-service collaboration and the recruitment of newly graduated nurses with limited clinical experience, which reduced confidence in managing complex home-based care. Finally, within the Process domain, the theme "Failing to implement preventive and proactive approaches" describes the difficulty in translating the preventive orientation of the FCN model into everyday practice, with activities remaining largely reactive.

3.3 ERIC Strategy mapping

Barriers were mapped to the ERIC tool to identify strategies, that were selected based on the level of agreement regarding their efficacy in addressing barriers. Based on the CFIR–ERIC matching, nine implementation strategies were identified as

those with the highest level of expert consensus to address the main barriers that emerged in this study, as shown in Table 2.

Table 2: Summary of barrier constructs mapped to ERIC strategies

CFIR construct	ERIC strategy (most strongly recommended)	% of agreement
Adaptability	Promote adaptability	76
Patient needs & Resources	Conduct local needs assessment	57
Cosmopolitanism	Built a coalition	62
Culture	Identify and prepare champions	52
Compatibility	Conduct local consensus discussion	41
Available Resources	Access new funding	78
Knowledge & Beliefs about the Intervention	Conduct educational meetings	56
Engaging - Innovation Recipients	Involve patients and family members	59
	Prepare patients to be active participants	55

Legend: CFIR, Consolidate Framework for Implementation Research; ERIC, Expert Recommendations for Implementing Chance

Regarding the Adaptability construct, the strategy "Promote adaptability" (76%) was identified as a key action to counteract the perceived differences between FCN principles and organisational goals. This strategy supports a flexible implementation of the FCN model, allowing services to tailor interventions to local contexts and community needs. Within the Outer Setting domain, the strategies "Conduct local needs assessment" (57%) and "Build a coalition" (62%) were prioritised to address the increasing socio-cultural complexity of citizens and the low level of community awareness of the FCN role. Assessment of local needs enables organisations to align services with community priorities, while coalition building with community stakeholders, such as social services and third-sector organisations, strengthens territorial networks and promotes citizen engagement. In the Inner Setting domain, professional shortages were mainly targeted through the strategies "Access new funding" (78%), "Identify and prepare champions" (52%) and "Conduct local consensus discussions" (41%). Securing additional funding is essential to ensure the sustainability of the FCN model, whereas the identification of local champions and the promotion of structured consensus processes are crucial to foster organisational change and improve recognition of the FCN role. Finally, within the Individuals and Process domains, the strategies "Conduct educational meetings" (56%), "Involve patients and family members" (59%) and "Prepare

patients to be active participants" (55%) aim to enhance professional readiness and to shift everyday practice from a reactive to a preventive and proactive orientation, strengthening the active involvement of patients and caregivers in the care pathway.

4 Discussion

Our findings offer insights and learning experiences for other countries in the planning and refining stages of the implementation of a nursing model. The findings indicate that the introduction of the FCN role requires not only organisational change but also cultural and professional realignment. Furthermore, the study utilised the CFIR-ERIC matching tool to develop tailored implementation strategies, addressing barriers to improve FCN model implementation. The integrated use of the CFIR and ERIC frameworks made it possible not only to describe these barriers, but also to translate them into concrete operational strategies.

Within the Innovation domain, participants reported differences between FCN principles and organisational priorities. Similar difficulties in integrating community-oriented nursing models into hospital-centred health systems have been reported internationally (McCauley et al., 2021). Consistent with CFIR assumptions, adaptability emerged as a key construct supporting implementation (Damschroder et al., 2022). Barriers related to the Inner Setting included limited resources, administrative burden and insufficient recognition of nursing competencies. These findings are consistent with evidence indicating that organisational culture and lack of structural support hinder the development of advanced and community-based nursing roles (Torrens et al., 2020). The identification and preparation of local champions appear relevant for addressing these challenges, as leadership engagement has been associated with improved implementation processes (Ojemeni et al., 2019). In the Individuals domain, limited readiness for the FCN role and perceived gaps in professional preparation were reported. Previous studies have shown that insufficient training is associated with reduced self-efficacy and fragmented implementation of community care models (Johnson et al., 2022). Regarding the Outer Setting, participants highlighted increasing socio-cultural complexity and low public awareness of the FCN role. Similar findings have been described in studies on primary care access and community engagement, which emphasise the relevance of user involvement (Adeosun et al., 2018). In the Process domain, difficulties in adopting preventive and proactive approaches

reflect observations from other European settings, where established task-oriented routines limit innovation in community care (Caponnetto et al., 2024). The combined use of CFIR and ERIC supported the translation of qualitative findings into a set of context-sensitive implementation strategies. The recent update of the CFIR framework (Damschroder et al., 2022) and methodological refinements of the CFIR–ERIC Matching Tool provide further support for this approach. The prioritised strategies identified in this study, promoting adaptability, accessing new funding, preparing champions, and involving patients and family members, are consistent with established models for chronic care delivery and address the main barriers identified in the Italian context.

4.1 Limitations

This study has several limitations. Data were collected only from nurses; the perspectives of other stakeholders were not included and may provide a more comprehensive understanding of the implementation process. Furthermore, although the CFIR–ERIC Matching Tool supported the identification of implementation strategies, this process was based on expert consensus rather than empirical testing within the study, and effectiveness of the proposed strategies remains to be evaluated in future implementation research.

5 Conclusion

The study analyses the barriers affecting the implementation of FCN model in an Italian regional context, using the CFIR framework and CFIR-ERIC matching to guide the identification of implementation strategies. Barriers were identified across the five CFIR domains, particularly concerning limited organisational support, insufficient recognition of the FCN role, and challenges in adopting preventive and proactive approaches in daily care. The integration of CFIR and ERIC enabled the translation of qualitative findings into strategies tailored to the context. The strategies mainly concern the promotion of adaptability, the allocation of specific fundings, the preparation of local champions and the active involvement of patients, families and community. These strategies could assist policymakers and nurses' managers in planning and refining the implementation of FCN model.

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