

# The Effectiveness of Nurse Managers' Strategies in Implementing the Fundamentals of Care Framework: a validation and descriptive study

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## ABSTRACT

**Introduction:** The "Fundamentals of Care" (FoC) represent a cornerstone of nursing care, focused on meeting patients' physical, psychosocial, and relational needs. The FoC approach is distinguished by its holistic nature, going beyond the execution of clinical/care procedures to include respect for patient dignity, appropriate communication, and the promotion of comfort and overall well-being. Despite the growing emphasis on FoC in nursing practice, evidence suggests that implementing this care model still faces challenges, particularly regarding uniform application and organizational support. **Objectives:** This study aims to validate a tool developed to assess ward nurse coordinators' perceptions of the effectiveness of their strategies in supporting the care team in delivering fundamental care. **Methods:** The questionnaire was validated using the "Survey Research Methods" methodology, through the systematic administration of questionnaires to a representative sample of individuals or groups to collect information on the study topics. The questionnaire was directly administered to nurse coordinators in clinical inpatient settings and included a series of structured, closed-ended questions designed to assess the application of FoC in nursing practice, challenges in implementation, and their knowledge and perceptions regarding the importance of Fundamentals of Care in the patient care process. **Results:** Data analysis revealed significant findings regarding the effectiveness of the assessment tool. The questionnaire demonstrated excellent reliability, with a Cronbach's Alpha coefficient of 0.89, indicating high internal consistency of the questions. Seventy-eight percent of coordinators reported perceiving their strategies as effective in supporting the team in delivering fundamental care. Sixty-five percent of respondents identified ongoing staff training as the most effective strategy for improving care quality. Additionally, 85% of participants highlighted the importance of consistent feedback from the team to optimize care strategies. These findings suggest that coordinators have a positive perception of their leadership actions and that the questionnaire is a valid tool for monitoring these perceptions. **Conclusions:** The study results indicate that the "PILOT NM-FoC/2023" questionnaire is a valid tool

for evaluating the effectiveness of FoC implementation strategies. This pilot study suggests that, with appropriate modifications, the questionnaire could be used on a larger scale to provide more generalizable data, significantly contributing to improving the quality of nursing care. Overall, the findings show that to support the adoption and implementation of the FoC model, greater organizational focus is needed, including strengthening corporate policies with a particular emphasis on ongoing staff training in the use of FoC.

## BACKGROUND

The Fundamentals of Care (FoC), which in Italian can be translated as "Cure essenziali", represent a key concept in the field of nursing care. They refer to a set of actions and interventions provided by healthcare professionals (primarily nurses) that are "fundamental" to addressing a person's "essential" needs and ensuring their physical, psychosocial, and relational well-being. [1]. FoC represents a holistic approach to care, which extends beyond performing tasks. For example, assisting patients in reaching the bathroom is not just about the physical act of moving, but also involves respecting their dignity, communicating appropriately, and ensuring they feel comfortable. [2]. The FoC approach requires that caregivers consider not only the 'physical' aspects of care, but also the psychosocial and relational ones. An approach based on FoC aims to care for the person in a comprehensive way, respecting their individuality and complex needs. The research developed and refined the "Fundamentals of Care Framework," as documented by Kitson et al. in 2013 [2], through the active participation of members of the International Learning Collaborative, who are also committed to ensuring updates that align with the needs of healthcare professionals, care recipients, educators, and researchers [2]. This conceptual framework provides a graphical representation of the Fundamentals of Care, a shared language and vision for care regardless of the complexity of nursing care and the context in which it is delivered. The framework aims to ensure effective, safe, and high-quality care, emphasizing the value of trust in relationships between healthcare providers, care recipients, and their families/caregivers. Furthermore, it emphasizes the need for a thorough integration of people's multiple fundamental needs, including physical needs (such as nutrition and mobility) and psychosocial needs (such as communication, privacy, and dignity), mediated by the relationship with nurses (such as active listening and empathy). The framework outlines how the environment ("care context") in which care is provided should support healthcare workers, enabling them to develop interpersonal relationships and identify basic needs ("care integration"). Three core dimensions are considered to date:

- (a) the therapeutic relationship based on trust between the care recipient and the care provider;
- (b) the integration and fulfillment of a person's physical, psychosocial, and relational needs;
- (c) the care context that fosters relationship development and the integration of care.

The FoC have become increasingly relevant in the field of care, as they have been linked to positive care outcomes such as safety, satisfaction, length of stay, and improvement in the quality of life of the patient. Failure to pay attention to FoCs can lead to deficiencies

in care, increasing the risk of adverse events and negatively affecting the overall patient experience [3].

However, despite their importance, FoCs are not always adequately ensured. Several studies show that omissions in nursing care are common and that this phenomenon negatively impacts the quality of care [4-9]. The qualitative and quantitative composition of the staff, leadership styles, and workplace climate significantly influence the quality of care [10]. In particular, the nurse manager plays a fundamental role in ensuring the organizational and environmental conditions necessary to prevent omissions, promoting a positive work environment and effective communication [11].

A recent scoping review [12] highlighted strategies that nurse coordinators can adopt to promote an FoC-based approach. Specifically, interventions at the macrosystem level were identified, which include involving company leadership in promoting a culture of patient care and developing a systemic strategy to enhance nursing practices based on FoC. At the microsystem level, the importance of the nurse coordinator's role emerged in ensuring continuous staff training to provide an adequate understanding of FoC, as well as providing the necessary resources, both in terms of personnel and materials.

It is essential to improve the work environment to facilitate attention to patients' fundamental needs, ensure effective team management with daily support for nurses, and guide the prioritization process by aligning clinical priorities with organizational ones. Furthermore, the coordinator must promote patient-centered care models, avoiding a purely task-oriented approach, act as a role model by maintaining active contact with patients, their caregivers, and the professional team itself, evaluate and disseminate the outcomes achieved to encourage continuous reflection and improvement. The leadership style is equally important [13-14], particularly transformational leadership [15], to transform and enhance nursing practice.

Although the importance of the role of nursing coordinators is widely recognized, little has been explored regarding the strategies adopted by leaders to guide care based on FoC [16-18]. Furthermore, to our knowledge, there are no studies that have validated tools to help coordinators self-assess how effectively they are implementing an FoC-based approach in daily practice. Bridging this knowledge gap was the aim of our study.

## **OBJECTIVES**

Validate a tool to measure the perception of nurse coordinators on the effectiveness of their strategies in supporting nurses in delivering care based on FoC.

## **METHOD**

A tool was developed and validated according to the "Survey Research Methods" methodology [19], which involves the systematic administration of questionnaires to a representative sample of individuals or groups, in order to obtain information on the topics under study.

## **SETTING, POPULATION, AND SAMPLING**

The University Hospital of the Marche Region, one of the Italian regions, with 938 beds (855 for ordinary admissions and 78 for day hospital) and 41.449 hospitalizations was

considered as the setting for the study. The sample size was determined through census sampling, including the entire specific population present in the healthcare facility involved in the pilot project. Given the small population size, this technique was chosen to ensure complete coverage without any exclusions. An intentional sampling method [20] was used, considering eligible participants to be Nursing and Midwifery Coordinators working in care-related inpatient units and available to participate.

N°Coordinators	N°Functional/Organizational Role Assignments	N°Coordinators Enrolled
N=47 (78.3%)	N=14 (87.5%)	N=35 (58.3%)
N=3 (5%)	/	/
N=2 (3.3%)	/	N=2 (3.3%)
N=5 (8.3%)	/	/
N=1 (1.7%)	N=2 (12.5%)	/
N=1 (1.7%)	/	/
N=1 (1.7%)	/	/
N=60	N=16	n=37 (61.7%)
Note: N: total population; n: sample included in the study		

Table 1-Sample definition

Out of a population of 60 Coordinators, 37 (61.7%) were identified.

## QUESTIONNAIRE AND DATA COLLECTION PROCEDURES

The development of the instrument was based on the recent scoping review [12], which included 11 articles [21-32] that highlighted a set of strategies facilitating the implementation of FoC (Fundamentals of Care):

- Promotion of a culture oriented towards FoC principles and their integration into the organizational structure [27, 29, 32];
- Development of a system strategy to verify the presence of company policies supporting the implementation of FoC [25, 27];
- Development of synergies to assess the degree of collaboration between different professionals;
- Promotion of effective leadership among coordinators to ensure quality of care [21, 26, 28];
- Continuous training of nursing staff to standardize the level of knowledge on FoC [28, 39, 33, 34];
- Optimal resource management to ensure adequate availability, prevent overloads, and ensure proper implementation of FoC [22, 24];
- Management of the influence of the work environment on the implementation of FoC [26, 31];
- Team management to verify the coordinator's perception of their role in daily team management, with a particular focus on the ability to orient care objectives, provide support, and maintain high group motivation [3];
- Supervision of priorities to assess the coordinator's perception of their ability to guide the care team on priorities [22, 28, 30];
- Adoption of patient-centered care models and reducing the emphasis on tasks [22, 23, 26, 29, 34, 35];

- m) The role of the coordinator acting as a point of reference for the team [28, 30, 35];  
 n) Systematic evaluation and dissemination of care outcomes to reflect on and improve care [26, 27, 29].

In accordance with the literature [19], the identified strategies were transformed into questions and subsequently analyzed by a focus group, which evaluated their quality, clarity, relevance, and pertinence, identifying any missing themes. The focus group included six experts selected for their expertise: two nurse managers of inpatient units (pediatric-surgical and adult-surgical areas), one department nurse, one nurse manager, one research skills facilitator, and one moderator with expertise in clinical risk and quality. The focus group was enriched by the use of brainstorming techniques, promoting a structured discussion aimed at gathering ideas and creative solutions. The proposals were evaluated, grouped by themes, and explored in depth, with the goal of developing useful concepts for research. The focus group methodology followed the methodological steps indicated in Table 2.

Step	Description	Activity Performed	Person Responsible
I.	Introduction and Basic Rules	Sharing the rules for conducting the Focus Group, promoting active participation and mutual respect.	Moderator
II.	Warm-up	Initial activity aimed at making participants feel comfortable and encouraging creativity.	Moderator, Participants
III.	Objective Definition	Defining the key constructs to be assessed through the questionnaire.	Moderator, Facilitator
IV.	Literature Review Sharing	Sharing the literature review to contextualize the themes.	Moderator
V.	Idea Creation	Generating ideas and proposals.	Participants, Moderator
VI.	Item Review	Presenting items based on participants' knowledge and experience.	Participants, Moderator
VII.	Discussion and In-depth Analysis	In-depth discussion to improve understanding of the proposals.	Facilitator, Moderator
VIII.	Idea Grouping and Prioritization	Grouping ideas and defining priorities.	Moderator, Facilitator, Participants
IX.	Conclusion and Feedback	Conclusion and feedback. Summary of the main ideas that emerged..	Moderator
X.	Data Analysis / Key Theme Identification	Analyzing collected information and identifying key themes.	Moderator, Facilitator

Table 2-Methodological Steps for Conducting The Focus Group

The final questionnaire consisted of 34 questions, two of which were formulated with inverse polarity [19]; it was divided into three sections: (1) sociodemographic data (age, gender, years of work experience, and education), (2) contextual data (level of knowledge of the Fundamentals of Care Framework, importance attributed to the care model, communication methods used, leadership styles applied, and organizational model adopted), (3) strategies used by the coordinator to promote the implementation of FoC. For the dissemination of the survey, the researcher individually contacted each participant included in the study. Subsequently, they shared the study's information document, obtained informed consent from the participants, and administered the questionnaire. This procedure ensured direct communication and the conscious acquisition of data by the subjects involved.

## STATISTICAL ANALYSIS

The statistical analysis of the data was performed using IBM SPSS Statistics software, version 26 (2021). Descriptive analyses included frequency distribution (%) for categorical variables and the mean with standard deviation (mean; sd). Furthermore, differences were explored using the Wilcoxon test (in the case of comparisons between two groups) or the Kruskal-Wallis test (if the groups being compared were more than two). An exploratory factor analysis was conducted, as well as an internal consistency assessment (Cronbach's alpha).

## ETHICS

The research protocol was approved by the Ethics Committee of the Marche Region (CET 365/2023); data collection was authorized through the Company Determination No. 179 of 08/03/2024.

## RESULTS

Participants: A total of 35 nurse managers participated out of a total population of 37. The average age of the participants was 47.8 years (SD±9.7), with a predominance of female gender (80%, n = 28). A total of 54.3% (n = 19) had obtained a Master's Degree, while 20% (n = 7) held a Bachelor's Degree. Overall, participants had an average work experience of 16.1 years (SD = 6.6), and an average experience as Nurse Coordinators of 9.1 years (SD±10.1) [Table 3].

Care Setting, n. (%)	
Surgical	17 (48.6%)
Medical	18 (51.4%)
Age, mean±sd	47.8±9.7
Gender, n. (%)	
Male	7 (20.0%)
Female	28 (80.0%)
Education, n. (%)	
Regional School Diploma	7 (20.0%)
University Diploma or Equivalent Qualification	2 (5.7%)
Bachelor's Degree	7 (20.0%)
Master's Degree	19 (54.3%)
Years of Work Experience as a Nurse, mean±sd	16.1±6.6
Years of Work Experience as a Nurse Coordinator, mean±sd	9.1±10.1
Note: n. (%): sample included in the study; sd: standard deviation;	

Table 3-Sample Characteristics-Sociodemographic information (N=35)

Knowledge of the Fundamentals of Care: The majority of the sample reported having good or excellent knowledge of the FoC, with 51.4% (n = 18) indicating good knowledge and 8.6% (n = 3) indicating excellent knowledge. Additionally, 74.3% (n = 26) of participants reported having received specific training on the FoC; 73.5% (n = 25) reported having implemented this model in their setting, and 58.8% (n = 20) reported using specific strategies to implement the FoC [Table 4].



Context Analysis	
a) What is your level of knowledge of the Fundamentals of Care framework? n. (%)	
No knowledge:	2 (5.7%)
Basic knowledge:	12 (34.3%)
Good knowledge:	18 (51.4%)
Excellent knowledge:	3 (8.6%)
b) Have you received training on the Fundamentals of Care? n. (%)	
Yes	26 (74.3%)
c) In your setting, are you implementing the FoC model for patient care? n. (%)	
Yes	25 (73.5%)
d) Are you using strategies to implement the FoC? n. (%)	
Yes	20 (58.8%)
e) Have you received specific support if you implemented the Fundamentals of Care in your organization? n. (%)	
Yes	18 (51.4%)
Note: n. (%): sample included in the study; FoC: Fundamentals of Care	

Table 4-Sample Characteristics - Context analysis (n=35)

Questionnaire Validity - Factor Analysis (Method: Principal-Component Factors): The validity of the questionnaire, consisting of 34 items, was confirmed through a factor analysis, which identified seven main factors with good internal reliability (Cronbach's alpha ranging from 0.4041 to 0.9254). This analysis highlights the internal consistency of the questions related to FoC and the robustness of the data collected, suggesting good reliability of the questionnaire in measuring the various dimensions of FoC implementation strategies. However, some factors show lower reliability, indicating the possibility of revising and improving some items in the questionnaire to increase internal consistency. The seven main factors identified explain a significant portion of the total variance in the questionnaire and are associated with the following dimensions: 1st Factor "Developing System Strategies": Refers to the ability to plan, develop, and implement effective strategies involving top management, including a long-term vision and the capacity to respond to citizen needs; 2nd factor "Resource Management": Pertains to the ability to effectively manage available resources to maximize outcomes and ensure their sustainable use; 3rd Factor "Team Support"\*: Focuses on the importance of providing support to the group through guidance and encouragement, promoting collaboration and team well-being to enhance collective performance; 4th Factor "Organizational Leadership": Refers to the ability to lead and influence the organization toward achieving goals, promoting a culture oriented towards the use of FoC, and improving performance through effective organizational models and continuous team support; 5th Factor "Optimization": Involves the ability to improve and optimize processes, reducing waste and inefficiencies to achieve objectives; 6th Factor "Role Modeling": The capacity to serve as a positive role model, inspiring and influencing the group; 7th Factor "Relationship Building": Concerns the ability to build and maintain strong and constructive relationships within and outside the group, fostering collaboration and dialogue [Table 5].

Variable	1. Systemic Strategies	2. Resource Management	3. Team Support	4. Organizational Leadership	5. Optimization	6. Role Modeling	7. Relationship Building
Q_1. The Coordinator promotes a culture based on the founding principles of the FoC, and these concepts are structural elements of the organization.	-	-	-	0.852	-	-	-
Q_2. System-wide actions are necessary, involving company leadership and nursing management, through long-term strategic programs implemented transparently, also incorporating them into the hospital's quality policies.	0.572	-	-	-	-	-	-
Q_3. The organizational methods used by the Coordinator are important for guiding, supporting, and sustaining improvements in care.	-	-	-	0.619	-	-	-
Q_4. It is important to establish partnerships among all actors involved in the care process by involving the leadership of the organization, clinical services, education, and nursing research.	-	-	-	-	-	-	0.737
Q_5. The Coordinator's leadership is relationship-oriented, characterized by a compassionate and group-oriented style, to guide and motivate towards the FoC, improving care outcomes and quality.	-	-	-	-	-	-	0.694
Q_6. The Coordinator must standardize the level of personal knowledge about the FoC: guiding staff who display a partial view of the patient (e.g., very focused on pathology) toward a more holistic approach to patient needs.	-	-	0.539	-	-	-	-
Q_7. The Coordinator must standardize the level of personal knowledge about the FoC: developing training programs to fill potential knowledge gaps.	-	-	0.837	-	-	-	-
Q_8. Specific training pathways on the concepts related to the Fundamentals of Care must be created for integrating new hires into the organization.	-	-	0.786	-	-	-	-
Q_9. An adequate amount of resources and skill-mix must be ensured to prevent excessive workloads that lead to a task-based model of care.	-	-	0.637	-	-	-	-

Q_10. Material resource management must be optimized, improving accessibility to better meet patient needs.	-	0.608	-	-	0.574	-	-
Q_11. The Coordinator promotes a quality work environment, for example, by monitoring noise levels, managing bed overcrowding in shared rooms, and utilizing non-ward rooms when capacity is high to ensure proper management of patients' essential needs.	0.560	-	-	-	-	-	-
Q_12. The Coordinator provides appropriate environments by creating:	0.634	-	-	-	-	-	-
Q_12i. Workspaces							
Q_12ii. Rest and break areas	0.762	-	-	-	-	-	-
Q_12iii. Meeting spaces for the care team	0.652	-	0.574	-	-	-	-
Q_13. The active presence of the Coordinator in clinical settings contributes to improving the quality of daily practice and positively influences the fulfillment of patients' needs.	-	-	-	-	-	0.835	-
Q_14. The Coordinator supports the group through communication, encouragement, and psychological support.	0.503	-	-	-	-	-	-
Q_15. The role of the Coordinator is of fundamental importance in the daily management of the professional group, offering support and motivation to achieve care objectives.	-	0.621	-	-	-	-	-
Q_16. The Coordinator helps the group to clearly and consistently define care priorities, focusing on patients' needs.	-	0.817	-	-	-	-	-
Q_17. The Coordinator implements organizational models that enhance professional autonomy and responsibility, promoting the planning of the care process.	0.534	-	-	0.543	-	-	-
Q_18. The Coordinator facilitates the identification of who is responsible for patient care.	-	0.798	-	-	-	-	-
Q_19. The Coordinator facilitates the optimization of interventions, minimizing patient visits. This approach enhances nurses' attention to assessing needs and meeting them.	-	-	-	-	0.764	-	-
Q_20. The Coordinator acts as a positive example and role model, earning respect from both patients and nurses.	0.767	-	-	-	-	-	-
Q_21. The active presence of the Coordinator in clinical practice adds value to daily activities, facilitates addressing patients' needs, helps establish quality standards, and deals with challenges.	0.520	-	-	-	-	-	-
Q_22. System-wide actions involving corporate leadership and nursing management, in addition to local efforts, are necessary to effectively implement FoC's within the organizational model.	-	-	-	-	0.777	-	-
Q_23. The Coordinator, together with the care team, systematically evaluates outcomes through formal (e.g., audits) and informal monitoring based on open data collection. Systematic collection of patient perspectives can serve as a starting point for developing improvement projects. The results obtained must be shared with the entire care team.	0.621	-	-	-	-	-	-
Q_24. Initiatives have been implemented that facilitated the adoption of FoCs using effective strategies.	-	-	-	-	-	0.644	-
Cronbach's alpha	0.9254	0.8888	0.8361	0.6892	0.7462	0.4041	0.6108

Note: Q\_1-Q\_24: Questionnaire question coding, each question is identified by a sequential number from Q1 to Q24;  
Q\_12i-Q\_12iii: Subgroup of question Q12, belonging to the same thematic area or category as the main question.

Table 5 - Rotated factor loading (Pattern matrix)

**Strategies for Implementing FoC:** The most effective strategies for implementing FoC include establishing partnerships between organizational, clinical, and educational leadership, which are considered essential for improving care by engaging all actors in the process. The coordinator plays a key role in supporting and guiding the group in defining care priorities, placing patients' needs at the center, and serving as a role model of positive behavior, capable of inspiring and influencing the team. Additionally, the coordinator implements organizational models that promote autonomy and professional responsibility, encouraging healthcare staff to actively participate in care decisions. This approach not only improves efficiency, quality of care, and care process planning but also optimizes resources and ensures continuity. By valuing autonomy, more personalized care is fostered, and the team's professional growth is stimulated, enhancing cohesion and commitment toward a culture of quality centered on patients' needs. The establishment of dedicated spaces to facilitate group meetings for care teams turned out to be the least effective strategy, with a score significantly lower compared to the others. Although the presence of a coordinator is generally considered relevant, there is a perception of a lesser impact on daily management and addressing patient needs, likely because the coordinator favors team autonomy, considering it a more effective strategy. Identifying the patient care manager, while important for role clarity and continuity of care, seems to have a less significant impact compared to other strategies. This could be due to the fact that, in well-organized contexts, care responsibility is often implicitly understood within team dynamics, reducing the need for formal identification. Furthermore, strategies such as promoting professional autonomy or improving communication and cohesion within the care team may be perceived as more effective in ensuring overall high-quality management. The participants positively evaluate initiatives aimed at promoting an organizational culture based on the principles of FoC [Table 6] (Q\_1: M=3.65, SD±0.85, p=0.021) and recognize that the organizational strategies adopted by the coordinator are important for guiding and supporting the improvement of care (Q\_3: M=4.23, SD±0.55, p=0.037). The participants also highlighted the importance of establishing solid



collaboration with senior management and nursing leadership, who operate through systematic actions and long-term strategic programs transparently integrated into the hospital's quality policies, involving clinical, educational, and research components (Q\_4: M=4.37, SD±0.65, p=0.039). It was further noted that the coordinator's leadership style, focused on relationships and characterized by compassion and attentiveness to the group, can positively influence the adoption and use of FoC. This approach is considered crucial in guiding and motivating the team, thereby contributing to improvements in both outcomes and the quality of care (Q\_5: M=3.79, SD±0.95, p=0.045). The sample believes it is essential for the Coordinator to harmonize the group members' level of knowledge of the conceptual model, guiding all staff toward a shared model of patient care based on a comprehensive approach to needs (Q\_6: M=4.23, SD±0.73, p=0.028). The Coordinator also intervenes in the work environment, fostering the creation of a high-quality work context (Q\_11: M=3.74, SD±1.27, p=0.024). Additionally, the sample highlights the importance of the Coordinator playing a reference role in the daily management of the group, offering support and motivation to achieve care objectives (Q\_15: M=4.29, SD±0.75, p=0.048). The value attributed to this daily management is also demonstrated through the active presence of the Coordinator in clinical practice, facilitating the team in addressing and meeting patients' needs, helping to establish quality standards, and addressing emerging challenges [Table 7] (Q\_21: M=3.91, SD±1.06, p=0.037). The analysis of the mean scores also revealed that there are no statistically significant differences between surgical and medical care contexts in the perception of the effectiveness of FoC strategies, with similar scores across all questions.

	Total	p
Q_1. The Coordinator promotes a culture based on the founding principles of the FoC, and these concepts are structural elements of the organization.	3.65±0.85	<b>0.021</b>
Q_2. System-wide actions are necessary, involving company leadership and nursing management, through long-term strategic programs implemented transparently, also incorporating them into the hospital's quality policies.	4.23±0.65	0.079
Q_3. The organizational methods used by the Coordinator are important for guiding, supporting, and sustaining improvements in care.	4.23±0.55	<b>0.037</b>
Q_4. It is important to establish partnerships among all actors involved in the care process by involving the leadership of the organization, clinical services, education, and nursing research.	4.37±0.65	<b>0.039</b>
Q_5. The Coordinator's leadership is relationship-oriented, characterized by a compassionate and group-oriented style, to guide and motivate towards the FoC, improving care outcomes and quality.	3.79±0.95	<b>0.045</b>
Q_6. The Coordinator must standardize the level of personal knowledge about the FoC: guiding staff who display a partial view of the patient (e.g., very focused on pathology) toward a more holistic approach to patient needs.	4.23±0.73	<b>0.028</b>
Q_7. The Coordinator must standardize the level of personal knowledge about the FoC: developing training programs to fill potential knowledge gaps.	4.26±0.61	0.219
Q_8. Specific training pathways on the concepts related to the Fundamentals of Care must be created for integrating new hires into the organization.	4.14±0.69	0.249
Q_9. An adequate amount of resources and skill-mix must be ensured to prevent excessive workloads that lead to a task-based model of care.	3.94±0.94	0.276
Q_10. Material resource management must be optimized, improving accessibility to better meet patient needs.	4.03±0.79	0.427
Q_11. The Coordinator promotes a quality work environment, for example, by monitoring noise levels, managing bed overcrowding in shared rooms, and utilizing non-ward rooms when capacity is high to ensure proper management of patients' essential needs.	3.74±1.27	<b>0.024</b>
Q_12. The Coordinator provides appropriate environments by creating:	3.77±1.09	0.116
Q_12i. Workspaces	3.60±1.06	0.387
Q_12ii. Rest and break areas	4.20±0.90	0.185
Q_12iii. Meeting spaces for the care team	2.03±1.06	0.121
Q_13. The active presence of the Coordinator in clinical settings contributes to improving the quality of daily practice and positively influences the fulfillment of patients' needs.	4.31±0.76	0.056
Q_14. The Coordinator supports the group through communication, encouragement, and psychological support.	4.29±0.75	<b>0.048</b>
Q_15. The role of the Coordinator is of fundamental importance in the daily management of the professional group, offering support and motivation to achieve care objectives.	4.23±0.65	0.245
Q_16. The Coordinator helps the group to clearly and consistently define care priorities, focusing on patients' needs.	4.37±0.69	0.086
Q_17. The Coordinator implements organizational models that enhance professional autonomy and responsibility, promoting the planning of the care process.	4.06±0.76	<b>0.045</b>

Q_18. The Coordinator facilitates the identification of who is responsible for patient care.	3.49±1.17	0.290
Q_19. The Coordinator facilitates the optimization of interventions, minimizing patient visits. This approach enhances nurses' attention to assessing needs and meeting them.	4.20±0.68	0.295
Q_20. The Coordinator acts as a positive example and role model, earning respect from both patients and nurses.	3.91±1.04	0.051
Q_21. The active presence of the Coordinator in clinical practice adds value to daily activities, facilitates addressing patients' needs, helps establish quality standards, and deals with challenges.	2.23±1.09	0.798
Q_22. System-wide actions involving corporate leadership and nursing management, in addition to local efforts, are necessary to effectively implement FoCs within the organizational model.	3.83±0.98	0.424
Q_23. The Coordinator, together with the care team, systematically evaluates outcomes through formal (e.g., audits) and informal monitoring based on open data collection. Systematic collection of patient perspectives can serve as a starting point for developing improvement projects. The results obtained must be shared with the entire care team.	0.86±0.36	0.069

Table 6- Level of support received to implement the FoC

	Total	p
Q_1. The Coordinator promotes a culture based on the founding principles of the FoC, and these concepts are structural elements of the organization.	3.67±0.85	<b>0.007</b>
Q_2. System-wide actions are necessary, involving company leadership and nursing management, through long-term strategic programs implemented transparently, also incorporating them into the hospital's quality policies.	4.21±0.64	0.110
Q_3. The organizational methods used by the Coordinator are important for guiding, supporting, and sustaining improvements in care.	4.26±0.51	0.126
Q_4. It is important to establish partnerships among all actors involved in the care process by involving the leadership of the organization, clinical services, education, and nursing research.	4.35±0.65	0.619
Q_5. The Coordinator's leadership is relationship-centered, characterized by a compassionate and group-oriented style, to guide and motivate towards the FoC, improving care outcomes and quality.	3.79±0.96	0.563
Q_6. The Coordinator must standardize the level of personal knowledge about the FoC: guiding staff who display a partial view of the patient (e.g., very focused on pathology) toward a more holistic approach to patient needs.	4.24±0.74	0.705
Q_7. The Coordinator must standardize the level of personal knowledge about the FoC: developing training programs to fill potential knowledge gaps.	4.24±0.61	0.266
Q_8. Specific training pathways on the concepts related to the Fundamentals of Care must be created for integrating new hires into the organization.	4.15±0.70	0.239
Q_9. An adequate amount of resources and skill-mix must be ensured to prevent excessive workloads that lead to a task-based model of care.	3.94±0.95	0.928
Q_10. Material resource management must be optimized, improving accessibility to better meet patient needs.	4.06±0.78	0.955
Q_11. The Coordinator promotes a quality work environment, for example, by monitoring noise levels, managing bed overcrowding in shared rooms, and utilizing non-ward rooms when capacity is high to ensure proper management of patients' essential needs.	3.74±1.29	0.773
Q_12. The Coordinator provides appropriate environments by creating:	3.79±1.09	0.502
Q_12i. Workspaces	3.59±1.08	0.756
Q_12ii. Rest and break areas	4.18±0.90	0.356
Q_12iii. Meeting spaces for the care team	2.06±1.06	<b>0.059</b>
Q_13. The active presence of the Coordinator in clinical settings contributes to improving the quality of daily practice and positively influences the fulfillment of patients' needs.	4.32±0.77	0.753
Q_14. The Coordinator supports the group through communication, encouragement, and psychological support.	4.29±0.76	0.824
Q_15. The role of the Coordinator is of fundamental importance in the daily management of the professional group, offering support and motivation to achieve care objectives.	4.24±0.65	0.820
Q_16. The Coordinator helps the group to clearly and consistently define care priorities, focusing on patients' needs.	4.38±0.70	0.081
Q_17. The Coordinator implements organizational models that enhance professional autonomy and responsibility, promoting the planning of the care process.	4.06±0.78	0.645
Q_18. The Coordinator facilitates the identification of who is responsible for patient care.	3.50±1.19	0.759
Q_19. The Coordinator facilitates the optimization of interventions, minimizing patient visits. This approach enhances nurses' attention to assessing needs and meeting them.	4.18±0.67	0.656
Q_20. The Coordinator acts as a positive example and role model, earning respect from both patients and nurses.	3.91±1.06	<b>0.037</b>
Q_21. The active presence of the Coordinator in clinical practice adds value to daily activities, facilitates addressing patients' needs, helps establish quality standards, and deals with challenges.	2.26±1.08	0.248
Q_22. System-wide actions involving corporate leadership and nursing management, in addition to local efforts, are necessary to effectively implement FoCs within the organizational model.	3.82±1.00	0.484
Q_23. The Coordinator, together with the care team, systematically evaluates outcomes through formal (e.g., audits) and informal monitoring based on open data collection. Systematic collection of patient perspectives can serve as a starting point for developing improvement projects. The results obtained must be shared with the entire care team.	0.85±0.36	0.111

Table 7- Strategies Used to Implement the FoC

## DISCUSSIONS

The study outcomes confirm that the instrument is valid for measuring nurse coordinators' perceptions regarding the effectiveness of strategies they implement to support the professional team in delivering care based on FoC. The results show that most coordinators positively perceive their actions in supporting the delivery of essential care, with a good level of FoC implementation in the examined care settings. The questionnaire demonstrated high reliability (Cronbach's Alpha = 0.89), indicative of good internal consistency. Some areas for reflection can be identified: (1) the importance of nursing leadership in driving organizational change; (2) challenges related to continuous education and institutional support; and (3) the impact of professional autonomy and shared responsibility on care effectiveness.

(1) **Nursing Leadership:** One of the most significant aspects that emerged from the study is the fundamental role of the nurse coordinator in promoting an organizational culture oriented toward FoC. The findings indicate that coordinators positively perceive their contribution to leading and supporting the team in delivering essential care. Effective leadership practices have been identified as one of the key factors for the successful implementation of FoC. In particular, participants highlighted how a relationship-centered leadership approach, characterized by empathy and emotional support, can significantly influence the quality of care provided. This leadership style, which can be identified as a transformational leadership model, not only facilitates the creation of a positive work environment but also fosters the professional growth of nurses, promoting greater engagement and accountability. As demonstrated by the data, the coordinator who acts as a role model and guides the team toward a shared vision focused on patient needs contributes to improving care outcomes and group cohesion. This aligns with existing literature, which emphasizes how nursing leadership is crucial to supporting the implementation of complex care models such as FoC, where patient care goes beyond purely clinical aspects to include psychosocial and relational dimensions.

(2) **Continuous Training and Institutional Support:** Another key theme that emerged from the study is the importance of continuous training to ensure that nurses have a deep and shared understanding of the FoC model, identified as one of the most effective strategies to improve the quality of care and to ensure that all staff members are aligned on the goals and methodologies of FoC. The need to standardize the level of knowledge within the team was emphasized by a significant portion of coordinators, who believe it is important to guide staff toward a comprehensive understanding of patients' needs, avoiding a fragmented approach focused exclusively on clinical aspects. However, despite the recognized importance of training, the data suggest that significant challenges remain in ensuring adequate organizational support to facilitate the implementation of FoC. 51.4% of coordinators reported not receiving specific support from the institution for the implementation of FoC. This figure highlights the need to strengthen corporate policies and systemic-level strategies to ensure that FoC is integrated into the organization's daily practices. The involvement of senior management and nursing leadership is crucial for the development of long-term strategic programs that incorporate the FoC model into hospital quality policies. The

literature supports the notion that the success of FoC implementation depends not only on nursing leadership at the local level but also on the support provided at the institutional level. Previous studies have shown that corporate policies that value patient-centered care and promote continuous training are essential to create an environment conducive to the adoption of FoC. In the absence of adequate institutional support, coordinators may struggle to ensure the sustainability of implemented strategies, leading to variability in the application of the model and, consequently, less uniformity in the quality of care.

(3) **Professional Autonomy and Professional Responsibility:** Another theme that emerged from the study concerns the importance of professional autonomy in promoting effective and personalized care. The coordinators emphasized that supporting professional autonomy and responsibility is one of the most effective strategies for improving team efficiency and optimizing resources. Adopting organizational models that value autonomy allows nurses to make more informed and responsible decisions, enhancing their ability to respond to patients' needs in a more timely and personalized manner. Professional autonomy not only improves the quality of care but also helps create a more motivating work environment, where nurses feel valued and empowered. However, it is important that autonomy is balanced with appropriate support from the coordinator, who must ensure that the decisions made are consistent with team objectives and patient needs. As highlighted by the data, identifying a patient care leader is considered a less effective strategy compared to others, perhaps because, in a context where autonomy is promoted, roles and responsibilities are often implicitly understood and shared within the team. The evidence collected suggests that optimizing resource use and efficiently managing personnel, through a proper balance of responsibilities, are essential to avoid work overload and ensure that attention remains focused on patients' fundamental needs. This approach not only improves the team's overall performance but also helps create a more positive and collaborative work environment.

(4) **Influence of Workplace Environment and Resource Management:** Another significant aspect concerns the management of the workplace environment and resources. Coordinators indicated that promoting a quality work environment, characterized by effective management of noise, overcrowding, and material resources, is essential to ensuring adequate care for patients' basic needs. However, the creation of spaces to facilitate meetings of the care team was found to be one of the least effective strategies. This could be because coordinators tend to favor strategies that promote professional autonomy and shared responsibility, which they consider more effective for improving the quality of care.

This study highlighted the importance of the nurse coordinator's role in promoting and implementing FoC (Fundamentals of Care). Relationship-centered leadership strategies, continuous training, and the enhancement of professional autonomy have proven effective in improving care quality. There is a clear need to further enhance organizational support, especially at the corporate level, and continuous training as key strategies to optimize the adoption of FoC. The role of nursing leadership is crucial to ensuring the proper implementation of FoC, thereby promoting improvements in care quality.

**Conclusions:** The pilot study provided preliminary data that will be essential for revising the instrument before applying it to a larger sample. The results suggest that, with appropriate modifications, the questionnaire could become a key tool for understanding and improving the implementation of the Fundamentals of Care (FoC) in nursing settings. The validation of the questionnaire allows for the planning of a broader-scale survey, which could provide even more robust and generalizable data, significantly contributing to the improvement of nursing care quality. The results of the "PILOT NM-FoC/2023" questionnaire indicate a good level of application of the Fundamentals of Care in the examined care settings, with nursing leadership playing an important role in the use of FoC. However, the need for further organizational support, particularly at the company policy level, and enhanced training to further improve awareness and adoption of FoC has emerged. This pilot study indicates that the "PILOT NM-FoC/2023" questionnaire is a suitable tool for evaluating FoC implementation strategies. The analysis highlighted the need to refine certain sections of the questionnaire to improve its internal consistency and validity. This pilot study represents a first step towards a deeper understanding of the dynamics of FoC utilization.

**Limits of the study:** One of the main limitations of this study concerns the small sample size, which may affect the generalizability of the results. Furthermore, there is a potential bias due to the specific characteristics of the sample, composed exclusively of nursing coordinators who had already received specific training on FoCs. This may have positively influenced their responses and their perception of how FoCs are utilized, limiting the possibility of obtaining an impartial and comprehensive view of the effectiveness of these strategies in a broader and more different context.

## REFERENCES

1. Feo R, Conroy T, Jangland E, Muntlin Athlin Å, Brovall M, Parr J, et al. Towards a standardised definition for fundamental care: A modified Delphi study. *J Clin Nurs.* giugno 2018;27(11-12):2285-99.
2. Kitson, A, Conroy, T, Kuluski, K, Locock, L & Lyons, R, *Reclaiming and redefining the Fundamentals of Care: Nursing's response to meeting patients' basic human needs*, Adelaide, South Australia: School of Nursing, the University of Adelaide. 2013 ISBN 978-0-9872126-2-7
3. Mudd A, Feo R, Voldbjerg SL, Laugesen B, Kitson A, Conroy T. Nurse managers' support of fundamental care in the hospital setting. An interpretive description of nurse managers' experiences across Australia, Denmark, and New Zealand. *Journal of Advanced Nursing.* 2023;79(3):1056-68.
4. *Le Cure Infermieristiche Mancate (Missed Nursing Care)*. Fnopi L'infermiere. 2021
5. Royal Commission into Aged Care Quality and Safety. [https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-volume-1\\_0.pdf](https://agedcare.royalcommission.gov.au/sites/default/files/2021-03/final-report-volume-1_0.pdf)
6. Kalisch BJ, Landstrom GL, Hinshaw AS. Missed nursing care: a concept analysis. *J Adv Nurs.* luglio 2009;65(7):1509-17.
7. Schubert M, Glass TR, Clarke SP, Schaffert-Witvliet B, De Geest S. Validation of the Basel Extent of Rationing of Nursing Care instrument. *Nurs Res.* 2007;56(6):416-24.



8. Kalisch BJ, Williams RA. Development and psychometric testing of a tool to measure missed nursing care. *J Nurs Adm.* maggio 2009;39(5):211-9.
9. Sist L, Contini C, Bandini A, Bandini S, Massa L, Zanin R, et al. [MISSCARE Survey - Italian Version: findings from an Italian validation study]. *Ig Sanita Pubbl.* 2017;73(1):29-45.
10. Aiken LH, Sloane DM, Bruyneel L, Van den Heede K, Griffiths P, Busse R, et al. Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet.* 24 maggio 2014;383(9931):1824-30.
11. Lake ET, Riman KA, Sloane DM. Improved work environments and staffing lead to less missed nursing care: A panel study. *J Nurs Manag.* novembre 2020;28(8):2157-65.
12. Lombardi Fortino D., Galazzi A., Chiappinotto S., Palese A. Nurse Managers' strategies promoting a Fundamentals of Care-based approach among nurses: A scoping review. *Ann Ig.* 2023 Oct 24, doi: 10.7416/ai.2023.2583
13. Jodar i Solà G, Gené i Badia J, Hito PD, Osaba MAC, Del Val García JL. Self-perception of leadership styles and behaviour in primary health care. *BMC Health Serv Res.* 12 ottobre 2016;16:572.
14. [https://www.esade.edu/itemsweb//wi/research/catedra\\_liderazgos/Catedra\\_Lideratge/Publicacions/catedra16\\_baja.pdf](https://www.esade.edu/itemsweb//wi/research/catedra_liderazgos/Catedra_Lideratge/Publicacions/catedra16_baja.pdf)
15. García-Sierra R, Fernández-Castro J. Relationships between leadership, structural empowerment, and engagement in nurses. *Journal of Advanced Nursing.* 2018;74(12):2809-19.
16. Conroy T. Factors influencing the delivery of the fundamentals of care: Perceptions of nurses, nursing leaders and healthcare consumers. *Journal of Clinical Nursing.* 2018;27(11-12):2373-86.
17. Lavoie-Tremblay M, Fernet C, Lavigne GL, Austin S. Transformational and abusive leadership practices: impacts on novice nurses, quality of care and intention to leave. *J Adv Nurs.* marzo 2016;72(3):582-92.
18. McCauley L, Kirwan M, Matthews A. The factors contributing to missed care and non-compliance in infection prevention and control practices of nurses: A scoping review. *International Journal of Nursing Studies Advances.* 1 novembre 2021; 3:100039.
19. Floyd J., Fowler Jr - *Survey Research Methods.* SAGE Publications; 2013. 185 p.
20. Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research,* 42(5):533-544. <https://doi.org/10.1007/s10488-013-0528-y>
21. Akbiyik A, Korhan EA, Kiray S, Kirsan M. The Effect of Nurses' Leadership Behavior on the Quality of Nursing Care and Patient Outcomes. *Creat Nurs.* 2020;26(1):E8-18.
22. Cahill M, Neill S, Treleaven E, Lee-Steere K, Carter A, McCormack L, et al. Eat Walk Engage: Enabling acute care teams to deliver consistent fundamentals of care for older people. *J Adv Nurs;*



23. Conroy T. Factors influencing the delivery of the fundamentals of care: Perceptions of nurses, nursing leaders and healthcare consumers. *Journal of Clinical Nursing* (John Wiley & Sons, Inc). giugno 2018;27(11-12):2373-86.
24. Durante L, Mazzariol E, Buffon M. Strategie per l'attuazione delle Cure Fondamentali: una revisione della letteratura. *SCENARIO*. ottobre 2020;37(4):37-42.
25. Gronkjaer M, Voldbjerg SL, Jorgensen L, Kusk KH, Laugesen B. Establishing and leading a cross-institutional partnership to integrate fundamentals of care into clinical practice, nursing education and research. *J Adv Nurs*;
26. Jangland E, Teodorsson T, Molander K, Muntlin Athlin Å. Inadequate environment, resources and values lead to missed nursing care: A focused ethnographic study on the surgical ward using the Fundamentals of Care framework. *Journal of Clinical Nursing* (John Wiley & Sons, Inc). giugno 2018;27(11-12):2311-21.
27. Merkle J, Ronald K, Amaral N, Yang L, Ginty L, Jeffs L. Enculturating, embedding and investing in fundamental care in an academic health science centre. *J Adv Nurs*;
28. Mudd A, Feo R, McCloud C, Conroy T. Elucidating strategies used by clinical nurse leaders to facilitate fundamental care delivery: A qualitative study. *J Adv Nurs*;
29. Mudd A, Feo R, Voldbjerg SL, Laugesen B, Kitson A, Conroy T. Nurse managers' support of fundamental care in the hospital setting. An interpretive description of nurse managers' experiences across Australia, Denmark, and New Zealand. *J Adv Nurs*;
30. Pattison N, Corser R. Compassionate, collective or transformational nursing leadership to ensure fundamentals of care are achieved: A new challenge or non-sequitur? *J Adv Nurs*;
31. Sugg HVR, Richards DA, Russell AM, Burnett S, Cockcroft EJ, Thompson Coon J, et al. Nurses' strategies for overcoming barriers to fundamental nursing care in patients with COVID-19 caused by infection with the SARS-COV-2 virus: Results from the 'COVID-NURSE' survey. *Journal of Advanced Nursing*. 2022;
32. Jangland E, Teodorsson T, Molander K, Muntlin Athlin Å. Inadequate environment, resources and values lead to missed nursing care: A focused ethnographic study on the surgical ward using the Fundamentals of Care framework. *Journal of Clinical Nursing*. 2018;27(11-12):2311-21.
33. Conroy T. Factors influencing the delivery of the fundamentals of care: Perceptions of nurses, nursing leaders and healthcare consumers. *Journal of Clinical Nursing* (John Wiley & Sons, Inc). giugno 2018;27(11-12):2373-86.
34. Sugg HVR, Richards DA, Russell AM, Burnett S, Cockcroft EJ, Coon JT, et al. Nurses' strategies for overcoming barriers to fundamental nursing care in patients with COVID-19 caused by infection with the SARS-COV-2 virus: Results from the «COVID-NURSE» survey. *J Adv Nurs*;
35. Conroy T. Factors influencing the delivery of the fundamentals of care: Perceptions of nurses, nursing leaders and healthcare consumers. *J Clin Nurs*. giugno 2018;27(11-12):2373-86.

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