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The Influence of the Work Environment on Family-Centered Care Among Nurses in Neonatal Intensive Care Units in Governmental and Private Hospitals in the West Bank, Palestine

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Dedication

To everyone who believed in me and in my abilities to achieve my ambition.

Declaration

I declare that the content of this thesis is my own research work, unless otherwise referenced. I certify that this thesis does not contain any material published before by another person or has been submitted elsewhere for any degree or qualification.

Signed…… 

Name: MajdAwniAbdalhadiJada'a

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Abstract

Background: Family-centered care is crucial to newborn services because it provides parents with the necessary support and safety in Neonatal Intensive Care Units (NICUs), which are naturally stressful places. The purpose of this study was to evaluate how nurses' work environments in neonatal intensive care units affected their ability to provide family-centered care.

Material and method: This study was carried out by using cross-sectional design, with a convenience sample adopted in total of 210 Neonatal Intensive Care Units nurses. The data collection was gathered by work practice environment and family centered care scales.Data were collected between February 1 and May 1, 2025.

Result: The findings revealed that hospital type was the only significant outcome affecting the current family-centered care. Also, nurses in non-governmental hospitals showed higher mean scores (2.60 ± 0.48) compared to those in government hospitals (2.32 ± 0.42, $p < 0.001$). Post hoc analysis represented significant differences that master's degree nurses were higher than both diploma ($p = 0.005$) and bachelor's degree nurses ($p = 0.025$), with no significant difference between diploma and bachelor's nurses ($p = 0.132$). Age revealed a weak negative relationship with current family-centered care ($r = -0.146$, $p = 0.035$), while nursing experience and patient numbers had no significant correlations with either scale. A positive practice environment displayed a weak association with both scales ($r = 0.18$, $p = 0.009$; $r = 0.15$, $p = 0.027$). Interestingly, a weak negative correlation existed between current and necessary family-centered care ($r = -0.23$, $p = 0.001$). Hospital type ($B = 0.274$, $p < 0.001$) and practice environment ($B = 0.138$, $p = 0.009$) emerged as significant predictors of current family-centered care perceptions.

Conclusion: The results highlight the significance of promoting both institutional and educational support in nursing practice by indicating that perceptions of the need for family-centered care are considerably improved by increased educational attainment and supportive practice settings.

Key words: family centered care,work environment, nurse, neonatal intensive care unit, Palestine

List of tables

List of Abbreviations

Abbreviation	
FCC	Family centered care
NICUs	Neonate Intensive care units
PES-NWI	Practice Environment Scale-Nursing Work Index
FICare	Family Integrated Care
PCC	patient centered care
CINAHL	Cumulative Index to Nursing and Allied Health Literature

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Chapter One

Introduction

1.1 Background

Neonatal intensive care units (NICUs) are intrinsically stressful places because they care for preterm and seriously sick babies that require specialized and long-term hospitalization (Heidari & Mardani-Hamooleh, 2020). The NICU is a high-tech and stressful environment where "decisions regarding end-of-life care, verifiable resuscitation, and medical futility are common" (Mills & Cortezzo, 2020).For many parents, having their infant admitted to the NICU is a devastating event. The foreign surroundings, rigid medical protocols, and restricted possibilities for parental engagement can leave parents feeling helpless and isolated from their infant's care (van den Berg et al., 2017). Furthermore, many parents sense shame and self-blame, fearing that they have failed their infant. These emotional pressures can impair their capacity to bond with their infants and contribute successfully in the caregiving process (Bry & Wigert, 2019).

Given these limitations, there is a growing acknowledgment of the need for supportive methods that prioritise parents' emotional well-being and active participation in newborn care. Family-Centered Care (FCC) has evolved as a crucial paradigm for meeting these requirements and protecting newborns and their families (Oude Maatman et al., 2020). FCC highlights the importance of families as participants in their newborn's care and recognizes that emotional and psychological assistance for parents directly leads to better neonatal outcomes.

At its core, FCC acknowledges the critical role that families play in fostering newborns' health and development in NICUs. It aims to foster trust, communication, and collaborative decision-making between healthcare providers and families. Furthermore, family-centered care recognizes variation among families, respects their individual beliefs and experiences, and ensures that their views are heard in all aspects of newborn care (Gómez-Cantarino et al., 2020). By incorporating these ideas into NICU practice, healthcare teams may foster a more

compassionate, collaborative, and holistic care environment for both newborns and their families.

The FCC has become a cornerstone of modern pediatric and neonatal nursing practice, emphasizing collaboration, partnership, and mutual respect among healthcare professionals and families in order to meet the emotional, social, and developmental needs of children and individuals with serious or chronic conditions (Pettoello-Mantovani et al., 2009). The FCC ideology recognizes that the family is the constant presence in a child's life, whereas healthcare systems and professionals are transient supports (Hodgson et al., 2024). FCC aims to enhance health outcomes for patients and their families by promoting shared decision-making and family choices (Richards et al., 2017). The FCC's structure is based on four core values: participation, information exchange, cooperation, and respect and dignity (Johnson and Abraham, 2012). The use of FCC principles has been shown to reduce healthcare utilization (Park et al., 2018), increase overall satisfaction and quality of life (Cetintas et al., 2021), and strengthen the emotional bond between children and their families (Sepehrianazar & Chitsaz, 2025). Furthermore, FCC has been linked to higher caregiver satisfaction with managing their child's sickness and lower parental stress (Balbino et al., 2016; Salvador et al., 2019). FCC fosters a supportive and communicative environment that strengthens the family-provider relationship, encourages shared decision-making, and ultimately improves psychological well-being and parental satisfaction during hospitalization (Park et al., 2018).

However, in order to execute these concepts, nurses must retain strong social, emotional, and communication skills while balancing the technical demands of critical care. Despite its obvious benefits, attaining consistent FCC remains difficult across many healthcare systems, notably those in resource-constrained environments. Organizational restrictions, insufficient personnel, poor infrastructure, and disparities in healthcare professionals' comprehension of FCC ideology are common barriers (Aljawad et al., 2025; Franck et al., 2023).

Professional practice environments enable nurses to operate at the fullest extent of their practice, collaborate effectively within multidisciplinary teams, and assemble resources efficiently to meet patient care needs (Spence Laschinger et al., 2016). The professional practice environment is defined by Lake (2002) as "the organizational characteristics of a work setting that facilitate or constrain professional nursing practice". Peer relationships, organizational culture, and institutional rules that affect nursing practice are all part of the practice environment, which goes beyond the actual location (Klopper et al., 2012). Positive practice environments eventually improve the quality of patient care by acting as an external support system for nurses, according to research (Agostinho et al., 2023; Jeon& Han, 2019). On the other hand, subpar or unfavorable work conditions marked by low leadership, a lack of personnel, and elevated stress levels hinder the provision of high-quality nursing care, raise nurses' intents to leave, and fuel burnout and depression (Jeon& Han, 2019).

Due to geopolitical issues, high patient-to-nurse ratios, and a lack of resources, Palestine's healthcare system faces severe difficulties (Smerat et al., 2025). In NICUs, the work atmosphere has a big impact on nurses' capacity to provide FCC. Patient-centered care (PCC) and the

practice environment were found to be positively correlated (Bardhia et al., 2025). Thus, one of the most important factors for FCC implantation in NICUs is the practice environment. Collaborative communication with parents, family participation, and compassionate care are all promoted in supportive work settings. On the other hand, unfavorable work conditions that are marked by high levels of stress, insufficient staffing, and little management support typically make it more difficult for nurses to interact with families and restrict their capacity to implement FCC principles. (Loutfy et al., 2024; Oude Maatman et al., 2020).

1.2 Problem statement

Lack of resources and inadequate service distribution make it difficult to provide neonatal care in Palestine. There are notable differences in the availability of incubators, ventilators, and specialist equipment among the 38 neonatal facilities located throughout the nation—27 in the West Bank, three in East Jerusalem, and eight in the Gaza Strip (Massad et al., 2020, p1551). Inadequate family support networks, a staff shortage, and overcrowded units all intensify parental anguish and limit possibilities for meaningful family engagement in care. The health results for neonates reveal these limits; in 2022, Gaza's neonatal mortality rate was 7.9 per 1,000 live births (Alkhaldi et al., 2024).

Numerous research in Palestine have examined the features of nurse implementation, decision-making, and mental health. For example, Ayed (2025) discovered that emotional intelligence significantly influenced NICU nurses' decision-making abilities. Similarly, Aqtam et al. (2025) discovered that work engagement and emotional intelligence are connected concepts that increase the standard of newborn nursing care.

The FCC has achieved international recognition as an important newborn nursing method because it stresses teamwork, respect, and shared decision-making among families and healthcare professionals. However, effective implementation of FCC in NICUs necessitates strong leadership, enough resources, supportive organizational structures, and a good work environment that empowers nurses as family engagement facilitators. Despite its documented advantages, such as improved neonatal outcomes, less parental anxiety, and increased family satisfaction, its routine usage in clinical practice remains restricted (Kim et al., 2020). However, research into the direct impacts of the workplace on FCC among Palestinian NICU nurses is currently insufficient. Therefore, this study seeks to examine the influence of the work environment on family-centered care practices among nurses working in NICUs in Palestine, addressing a vital gap in both local and regional nursing research.

1.3 Significance of the Study

This study has important implications for knowledge, practice, research, and health policy. From a knowledge, it will improve understanding of how the work-practice influences nurses' use of FCC in Palestinian NICUs. The study sheds fresh light on the contextual factors that influence FCC in healthcare settings with limited resources and cultural sensitivity by examining features like as communication, leadership support, teamwork, and enough staffing. Also, the findings are intended to motivate hospital administrators and nurse supervisors to create supportive work cultures, which will improve newborn outcomes, increase parental satisfaction, and allow nurses

to engage families more effectively. In order to keep FCC principles in normal clinical care, the study emphasizes the importance of professional development programs that improve nurses' collaboration and communication abilities. This study addresses a significant research gap in the corpus of current Palestinian and regional literature by extensively examining the association between work environment characteristics and FCC behaviors. These findings might be built upon in future research on relevant attributes such as corporate culture, emotional intelligence, and resilience in neonatal nursing. Finally, the study has substantial health policy implications since it provides data that might affect nurse standards, workforce planning, and legislative reforms aiming at enhancing the quality of neonatal and FCC care in Palestine. In addition to implementing FCC concepts into national infant health policy, hospital managers and legislators might utilize the findings to build standards for optimal staffing, leadership, and continuous professional development. Overall, our findings increase clinical practice, widen theoretical understanding, direct future research, and strengthen evidence-based policies that promote family-centered and compassionate baby care in Palestine.

1.4 The aim of the Study

This study was conducted to assess the influence of work environment on family centered care among nurses in neonatal intensive care unit.

1.5 Research Questions

The research questions that were answered are:

1. What is the mean score of the work environment among NICU nurses?
2. What is the mean score of FCC among NICU nurses?
3. What is the relationship between work environment and FCC?
4. Are there differences in FCC based on demographic variables?
5. What are the predictors of FCC among NICU nurses?

1.6 Conceptual and Operational Definition

1.6.1 Conceptual Definition

Family-center care: is a way of providing services that assures the health and well-being of children and their families through respectful family/professional partnerships" (Phiri, Chan et al. 2022, p 10).

Nurse Practice Environment

According to Lake (2002), "the nurse practice environment was defined as the organizational characteristics of a work setting that facilitate or constrain professional nursing practice" (p.176).

1.6.2 Operational Definitions

Nurse: Nurses who officially employed in the Neonatal Intensive Care Unit of the selected hospital(s), provide direct clinical care to neonatal patients, and have a minimum of 6 months continuous experience in that NICU at the time of data collection.

Family-centered care: For this study, family-centered care was measured by the Family-Centered Care Questionnaire-Revised (FCCQ-R) which includes 45-items with nine subscales, originally developed by Bruce & Ritchie.

Nurse Practice Environment: For this study, the practice environment was measured using the Practice Environment Scale (PES) (Lake, 2002) with Nursing Information Technology Subscale (Moorer et al., 2010).

Chapter Two

Literature review

2.1 Introduction

This section discussed the literature about the influence of work environment on family centered care among nurses in NCUs. To capture the current state of knowledge, a literature search was conducted using databases including PubMed, CINAHL, Scopus, and Google Scholar, focusing on studies published between 2017and 2025. The search terms included combinations work practice environment, family centered care, nurses, neonatal intensive care unit.

2.2 Previous studies

Hallowell et al. (2019) conducted a national cross-sectional study to examine how nurse work environments influence parental presence in neonatal intensive care units (NICUs). Using data from 104 NICUs, including reports from 6,060 nurses caring for 15,233 infants, the researchers analyzed associations between the Practice Environment Scale of the Nursing Work Index (PES-NWI) and the proportion of parents present during nurses' shifts. Results showed that, on average, parents of 60% of infants were present during a shift. Higher overall PES-NWI composite scores and stronger domains of Nurse Participation in Hospital Affairs and Manager Leadership and Support were significantly associated with increased parental presence, with a one standard deviation increase linked to 2.5% more parents being present. The study found that supportive and empowering nurse work conditions increase family involvement, underlining the importance of leadership and professional engagement in fostering family-centered care in NICUs.

Aljawad et al. (2025) investigated a scoping review was conducted utilizing the PRISMA-ScR standards and the Arksey and O'Malley 5-step scoping review technique, which included all prospective and randomized controlled trials (RCTs) with FCC therapies from the PubMed and Web of Science databases. The data was sorted, tabulated, and described narratively. After deleting duplicates, we found 17 publications that met our eligibility criteria (4 RCTs, 13 prospective studies). Nine of these studies were conducted in neonatal intensive care units

(NICUs), with eight in pediatric intensive care units (PICU). Three NICU interventions were single-type therapies, whereas six were part of larger programs. Seven of the interventions in the PICU were single-type, while one was part of a complete program. All interventions incorporated elements of the FCC principles (respect, information sharing, cooperation, and participation). Barriers included institutional hurdles, provider attitudes, cultural concerns, communication issues, environmental constraints, training needs, and emotional stress. FCC facilitators included a more positive atmosphere, empowerment and training, supportive infrastructure, collaborative communication, parental participation, adaptive interventions, and continual feedback. According to the report, successful implementation of FCC interventions requires careful planning and needs evaluation. It offers management support, continual employee training, family orientation, and a continuous feedback loop. Incorporating FCC concepts and offering culturally appropriate therapies is crucial, as is identifying possible barriers and utilizing available facilitators. FCC efforts may help develop a hospital culture that promotes family relationships, altering the neonatal and pediatric critical care experience for patients, families, and clinicians.

Alqarawi and Alhalal (2024) conducted a systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standards. Various medical subject heading keywords and phrases were utilized to search electronic databases, with the goal of synthesizing and analyzing the findings. Twenty-three papers were found for examination. Most of these investigations were conducted in Western nations. They identified many facilitators and barriers to FCC implementation by nurses who care for ill children. Some of these elements are related to the nurses' personal traits, while others are related to family characteristics and the healthcare system itself. The study showed that nurses experience many hurdles that impede their capacity to apply FCC practice. This systematic study recognizes the need to utilize nurses' abilities, establish successful nurse-client interactions, and encourage organizational improvements.

Albayrak and Büyükgönenç (2022) conducted a quasi-experimental, non-equivalent, post-test study. The study used convenience sampling and included 128 preterm newborns and their parents, 64 in the experimental group and 64 in the control group, all of whom were treated at a university hospital's neonatal critical care unit. Before implementing the experimental group's family-centered nursing interventions, data from the control group's medical records and parents were gathered. Furthermore, nurses received a four-hour training session targeted at improving their attitudes about parental involvement in care, with attitudes assessed before, immediately after, and one month after the training. The experimental group data were obtained from medical records and parents after 10 FCC-based nursing interventions were executed by trained nurses in the newborn critical care unit with management assistance. The data collecting tools included the Parent-Preterm Infant Characteristics Form, Maternal Attachment Inventory, Empowerment of Parents in Intensive Care-Neonatology (EMPATHIC-N), and Parental Engagement Attitude Scale. While nurses' views regarding parental engagement ratings were greater immediately after and one month after training, they were lower one month later. The results showed that

infants in the experimental group gained considerably more weight at discharge than those in the control group, and there was no significant difference in duration of stay at the neonatal critical care unit between the groups. The experimental group's parents had considerably higher scores for maternal connection and satisfaction than the control group.

In a qualitative study conducted by Heidari & Mardani-Hamooleh (2020) to explore the nurses' views on FCC in Neonatal Intensive Care Units (NICUs). This study involved 18 nurses who were chosen using a purposeful sampling technique. Interviews were carried out with the participants in a semi structured manner, in-depth, and in person. The findings of this research indicated that nurses' view of Family-Centered Care in Neonatal Intensive Care Units can create a favorable environment for involving family members in the neonatal care.

Another qualitative study conducted by Oude Maatman et al. (2020) involving semi-structured interviews was carried out to examine the factors that impact the adoption of FCC in NICU's from the perspective of healthcare professionals working in a NICU that practices FCC. The findings of the study showed that the work environment is a factor that has a negative impact on the implementation of FCC in NICUs.

Toivonen et al. (2023) conducted a quasi-experimental before-and-after study across five Finnish NICUs between 2014 and 2018 to evaluate the effects of the close collaboration with parents' educational intervention on the quality of FCC as perceived by both parents and nurses. Using the DigiFCC tools and a 7-point Likert scale, data were collected from 31 fathers, 53 mothers before the intervention, and 21 fathers, 61 mothers after, along with thousands of nurse responses recorded before and after each shift. Results showed that fathers reported significant improvements in overall FCC quality and shared decision-making following the intervention, while mothers' total scores remained unchanged. Following the intervention, nurses' overall FCC scores also showed a significant improvement, with notable increases in areas like emotional support, active listening, and parents' trust in nurses. The results demonstrate how systematic staff training can improve certain aspects of FCC and fortify nurse-parent cooperation in NICUs.

Similarly, Gómez-Cantarino et al. (2021) conducted a systematic review to determine the extent to which published research articles represent the perspective of healthcare providers in NICU as advocates for family empowerment. Researches from five databases (PubMed, Cochrane, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus, and Google Scholar) were gathered from the years 2013 to 2020. The investigation took place between January and October 2020. A sum of 40 articles were utilized, with 13 studies (mixing quantitative and qualitative methods) being incorporated into this systematic analysis. In this case, the viewpoints of experts on the longevity and involvement of parents were respected. Additionally, the training, experiences, and educational requirements for nurses in the NICU were established. The important impact of healthcare professionals on humanizing care and its influence on the bond between newborns and their families was assessed. Nevertheless, there is a requirement for conceptual changes in neonatal intensive care units.

Another a cross-sectional observational study conducted by Loutfy et al. (2024) consisted 223 parents (202 mothers) from Mansoura City hospitals in Egypt using convenience sampling to investigate how FCC mediates the link between parental nurse support and parental stress in NICUs. Information was gathered through the utilization of the Nurse Parent Support Tool (NPST), Family-Centered Care Self-Assessment Tool (FCCS-NICU), and the Parental Stressor Scale: NICU (PSS: NICU). The study's findings indicated that nurse assistance was linked to higher levels of FCC and lower levels of parental stress. FCC was discovered to decrease parental stress levels. Mediation analysis showed that nurse support's impact on parental stress was partially mediated by FCC (indirect effect).

In addition, a study conducted by Zhang, et al. (2023) was carried out on a national level to gather information from NICU nurses and physicians about their views and opinions on Family Integrated Care (FICare). Information was gathered on 3 areas: demographic traits, FICare viewpoints, and beliefs. The study involved 299 NICU doctors and nurses from 31 high-level NICUs in China. The participants displayed a favorable stance towards adopting FICare and acknowledged its beneficial effects on babies. Nevertheless, certain participants expressed doubts about its practicality and restrictions within the NICU environment. The opinions and attitudes of the participants towards FICare differed depending on factors like their marital status and whether they worked during the day or at night. The majority of NICU nurses and doctors stated that FICare could be advantageous for newborns. Even with certain limitations regarding the NICU's environment, the majority of NICU leaders in China were optimistic about introducing FICare. Hence, developing important methods for carrying out FICare, choosing suitable staff, and training the employees on FICare are effective ways to encourage FICare integration.

Moreover, a study conducted by van den Berg et al. (2017) to evaluate how a positive work environment in the NICU can enhance family-centered care. This research gathered data from employees at a neonatal intensive care unit (NICU) both before and after the unit moved to a new location. This research found that the specially designed neonatal ward was seen by staff as a much better physical setting for providing family-centered care to infants and their families. Additionally, an NICU constructed in line with recommended guidelines improved the physical care environment for family-centered care and enhanced the working climate for staff.

Furthermore, Lim and Bang (2023) conducted a descriptive study in a tertiary children's hospital in South Korea to assess pediatric nurses' perceptions and performance of family-centered care (FCC). A total of 162 nurses participated, completing the modified Family-Centered Care Scale and an open-ended questionnaire on barriers to implementation. Results revealed that nurses' perceptions of FCC (mean = 4.07) were higher than their performance (mean = 3.77), with the collaboration subscale scoring lowest in both domains. Perceptions of FCC were strongly influenced by nurses' clinical experience in pediatric care and knowledge with FCC concepts, whereas performance changed only by clinical experience. There was a substantial positive association between perceptions and performance ($r = .594$, $p < .001$). Insufficient staffing, a lack of time, and the absence of an organized FCC system were among the reported hurdles.

The study emphasizes the importance of institutional support and established FCC frameworks to bridge the gap between nurses' favorable impressions and actual implementation in reality.

2.3 Summary

Despite the increased global emphasis on FCC as a cornerstone of neonatal and pediatric nursing practice, the data from the reviewed research reveals ongoing problems in its effective implementation. International research in a variety of countries, including Finland, Turkey, South Korea, China, and Egypt, shows that nurses' attitudes, expertise, work circumstances, and institutional support all influence FCC results. According to studies, hurdles to FCC integration include insufficient personnel, a lack of time, poor training, and cultural restrictions (Alqarawi & Alhalal, 2024; Lim & Bang, 2023).Moreover, while educational interventions and work environment improvements have demonstrated promise in increasing parental involvement and satisfaction (Albayrak & Büyükgönenç, 2022; Hallowell et al., 2019; Toivonen et al., 2023), these efforts are context-specific and are primarily carried out in high-income or well-resourced healthcare systems. As a result, there is little understanding of how societal, economic, and organizational issues in low- and middle-income countries affect nurses' capacity to conduct FCC, especially in resource-constrained NICUs.

In the Palestinian context, where healthcare services confront continuing issues such as shortages of staff, high patient loads, limited training opportunities, and infrastructure restrictions, research on FCC is limited. There have been no extensive research on how nurses' work circumstances, views, and practices impact FCC delivery in Palestinian NICUs, or how institutional care cultural variables influence parent-nurse collaboration. Given the specific sociocultural dynamics of Palestinian families and the demand on healthcare systems, there is an urgent need to explore FCC implementation in this context. Such research would address a critical gap by providing context-specific insights into the facilitators and barriers to FCC in Palestine, ultimately informing strategies to strengthen family engagement, improve neonatal outcomes, and align nursing care with global best practices in family-centered care.

Chapter Three

Methodology

3.1 Introduction

The purpose of this study was assess the influence of work environment on family centered care among nurses in neonatal intensive care unit. This chapter will describe study design, setting, population and sampling methods, participant's eligibility criteria, research instruments, ethical considerations data collection, and data analysis.

3.2 Design of the study

The design was conducted using a quantitative descriptive cross-sectional research. This design proved acceptable for assessing influence of work environment on family centered care among nurses in neonatal intensive care unit. A cross-sectional research was chosen to describe the state or interactions between phenomena at a certain time point (Polit & Beck, 2018, p 138).Data were collected between February 1 and May 1, 2025.

3.3 Study setting

The study was conducted in the NICUs of governmental and non-governmental hospitals across the West Bank, Palestine. These units deliver specialized care to critically ill and premature newborns, collectively accommodating around 150 incubators and frequently operating under resource-constrained and high-demand conditions. The target population included nurses working in level II and level III NICUs within these hospitals who met the study's inclusion criteria. The selected hospitals were chosen because they are leading providers of neonatal care, equipped with well-established NICUs that reflect the realities of large, publicly funded healthcare institutions. As critical components of the Palestinian healthcare system, these facilities provided a valuable setting to gain insight from nurses actively involved in high-acuity and high-responsibility care for babies.

3.4 Study Population and Sample Size

Data were collected from 11 NICUs using a convenience sampling approach. A convenience sampling strategy was used because it allowed us to recruit participants from NICUs that were readily accessible and willing to participate within the available time, staffing, and resource constraints. In busy clinical environments, such as NICUs, implementing probability-based sampling is often impractical and may disrupt routine care. By including all eligible participants from the 11 participating NICUs, this able to maximize the sample size and enhance the feasibility of the study. Although convenience sampling may limit the generalizability of the findings, the inclusion of multiple units with differing characteristics (e.g., size, case mix, and staffing patterns) helped to capture variation in clinical contexts and provided useful preliminary evidence to inform future research. The needed sample size was calculated using Raosoft software, with an estimated population of 427 NICU nurses based on generally collected data. With a 95% confidence level and a 5% margin of error, the minimal sample size of 203 participants was established. To account for probable non-response or incomplete questionnaires, 230 nurses were asked to participate. Ultimately, 210 nurses completed the questionnaire, yielding a response rate of 91.3%

3.5 Inclusion and Exclusion Criteria

Inclusion Criteria:

- Nurses currently working in the NICUs of selected hospitals in the West Bank, Palestine.
- Nurses with at least six months of experience in NICU settings to ensure adequate exposure to clinical decision-making situations.
- Nurses who are willing to participate and provide informed consent.
- Nurses who are available during the data collection period.

Exclusion Criteria:

- Nursing interns, students, or newly hired nurses with less than six months of NICU experience.
- Nurses working in wards not directly involved in neonatal intensive care.
- Nurses on leave or unavailable during the data collection period.

3.6Study instruments

The questionnaire composed of three section:

Section one: demographic and professional characteristics of the nurses. It includes age, gender, educational level, professional experience, work hours and family-centered care education experience.

Section two: The second section evaluated the nursing practice environment using the Practice Environment Scale of the Nursing Work Index (PES-NWI), developed by Lake (2002). This commonly used tool provides useful insights into the nursing work environment by identifying factors that help or hinder nurses' capacity to give high-quality care (Swiger et al., 2017). Numerous healthcare organizations in the United States recognize the PES-NWI as a standard measure for measuring and promoting excellent healthcare (Havens et al., 2012; Warshawsky & Sullivan, 2011).

The PES-NWI consists of 31 items spread among five subscales (Nurse participation in hospital affairs, Nurse foundations for quality of care, Nurse manager ability, leadership and support, Staffing and resources adequacy, Collegial nurse–physician relations), each with between 3 and 10 items (Parker et al., 2010). The instrument has good reliability, with Cronbach's alpha values ranging from 0.71 to 0.84 (Lake 2002). Each subscale is assessed on a 4-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree), and assesses aspects in the workplace that influence the quality of nursing care. Higher scores suggest a better practice environment (Swiger et al., 2017). The scale has showed good validity and reliability and has previously been used among Palestinian nurses (Bardhia et al., 2025).

Section three: The Family-Centered Care Questionnaire-Revised (FCCQ-R). Itis a 45-item scale that assess nurses' perceptions and practices of FCC across nine key subscales originally developed by Bruce and Ritchie (1997). These subscales include recognizing the family as a constant in the child's life, fostering collaboration between parents and healthcare professionals, acknowledging family individuality, sharing complete information, understanding the child's developmental needs, encouraging parent-to-parent support, providing emotional and financial support, ensuring that the healthcare system responds to family needs", and "offering emotional support to staff". Participants answered each item using a 5-point Likert scale rated from 1 (strongly disagree) to 5 (strongly agree), assessing both the presence of these activities in their current practice and their perceived necessity for effective FCC implementation. "Scores are calculated by summing responses for each subscale and overall scale, with higher scores indicating a stronger integration of FCC principles into nursing practice" (Bruce et al., 2002).

The scale is valid and reliable, the internal consistency for FCCQ-R (0.90) (Bruce et al., 2002), 0.94 for both Current and Necessary dimension (Dall'Oglio, et al., 2018), 0.93 for current and 0.94 for necessary (Coyne et al., 2013, p 469), and for Current and Necessary dimensions was 0.91 and 0.92, respectively (Dall'Oglio et al., 2022).

3.7 Validity and Reliability

The questionnaire was reviewed and approved by a panel consisting of three experts from the nursing education and medical fields. The Cronbach's alpha coefficients for practice environment was to be 0.93, and for family-centered care scale was 0.90, indicating strong reliability. Consequently, the instruments were deemed reliable and suitable for use in the study.

3.8 Pilot Study

A pilot study with 20 NICU nurses was done to assess the measuring instruments' reliability and practicality. The Cronbach's alpha values for the practice environment and family-centered care nursing tools were 0.83 and 0.84, suggesting high reliability. To avoid potential bias, nurses who took part in the pilot trial were omitted from the main study. The questionnaire took between 20 and 30 minutes to complete, which was deemed acceptable by responders.

3.9 Ethical Considerations

The Institutional Review Board (IRB) of Al-Quds University granted ethical permission for this study (Ref. No. RESC/2025-28), and the Palestinian Ministry of Health permitted the research

to be conducted. Before participating, all nurses were given a thorough description of the study's objective, methods, potential benefits, and hazards, and each participant supplied signed informed permission. Participation was fully optional, with the ability to withdraw at any moment with no repercussions. Strict secrecy was maintained during the study, and all acquired data were securely archived to ensure privacy and ethical compliance.

3.10Data Collection procedure

Following ethical approval and official permission to perform the study, the researcher proceeded to the selected hospitals, talked with the head nurses of the NICUs, described the study aims, and got permission to enter the units and lists of eligible nurses. Participants were given paper-based surveys in English and asked to complete them at their convenience, with sealed envelopes provided for returning the completed forms. The researcher stayed on-site throughout the data collecting period, retrieving surveys at the end of each workday to avoid loss or misplacement. Data were collected between February 1 and May 1, 2025.

3.11 Data Analysis

The data collected was entered and analyzed using SPSS version 27.0. All surveys were properly examined before analysis to ensure completeness, missing numbers, outliers, and assumption consistency. Normality was assessed using histograms and the Kolmogorov-Smirnov test, which revealed that the data was complete, free of outliers, and somewhat equally distributed. The study's variables were described using descriptive statistics such as means, standard deviations, frequencies, and percentages. ANOVA, t-tests, and Pearson's correlation were used to evaluate differences and connections among variables.Furthermore, multiple linear regression was utilized to identify the causes of FCC among NICU nurses. The correlations were analyzed using Cohen's criteria, and they ranged from 0.10-0.29 (weak), 0.30-0.49 (moderate), and 0.50-1.0 (strong). Statistical significance was considered as $p\text{-value} < 0.05$.

Chapter Four

Findings

4.1 Introduction

This chapter discusses the study's findings, which sought to assess the influence of the work environment on family-centered care among nurses in neonatal intensive care units.

The analysis contains a full description of the participants' demographic data, descriptive statistics for important research variables, and inferential analyses to investigate relationships and determinants of family centered care. The findings are grouped to answer the study research questions, laying the groundwork for interpretation in the next discussion chapter. To improve clarity and comprehension, data are provided in tables and accompanied by narrative explanations.

4.2 Sociodemographic characteristics of study sample

The study included 210 nurses with a variety of sociodemographic characteristics. The mean age of participants was (29.5 ± 4.4). With Nearly half of the participants (47.6%) were between the ages of 26 and 30, followed by 20.5% between the ages of 31 and 35, 19.5% between the ages of 25 and younger, and 12.4% over the age of 35. The sample was slightly more male (54.8%) than female (45.2%). Most participants held a bachelor's degree (68.6%), while 20% held a master's degree or higher, and 11.4% held a diploma. The mean nursing experience was 4.87 years (±3.50) with majority of them had less than 5 years of experience (59%), followed by 28.6% with 5 to 9 years, and 12.4% with 10 or more years. Regarding shift work, the majority worked rotating shifts (87.6%) compared to day shifts (12.4%). The mean number of patients cared for per shift was 4.26 (±0.919), with 80% of participants, caring for four or more patients, and 69.5% had previous experience with family-centered care. The sample was roughly evenly distributed between government hospitals (53.3%) and private hospitals (46.7%). Other relevant details shown in table 1.

Table 4.1 (a) Sociodemographic characteristics of study sample.

Item	**N (%)**
Age	**Mean = 29.5 ± 4.4**
≥25	41 (19.5%)
26–30	100 (47.6%)
31–35	43 (20.5%)
>35	26 (12.4%)
Gender	
Male	115 (54.8%)
Female	95 (45.2%)
Educational Level	
Diploma	24 (11.4%)
Bachelor	144 (68.6%)
Master and above	42 (20.0%)
Experience in Nursing	**Mean = 4.87 ± 3.50**
< 5 years	124 (59.0%)
5–9 years	60 (28.6%)
≥10 years	26 (12.4%)
Work Shift	
Day	26 (12.4%)
Rotating shift	184 (87.6%)
Patients Cared for in Last Shift	**Mean = 4.26 ± 0.919**

Table 4.1 (b) Sociodemographic characteristics of study sample.

< 4 patients	42 (20.0%)
≥4 patients	168 (80.0%)
Family-Centered Care Education	
Yes	146 (69.5%)
No	64 (30.5%)
Type of Hospital	
Governmental	112 (53.3%)
Private	98 (46.7%)

4.3 Practice Environment Scale of the Nursing Work Index

The mean overall PES score was 3.71 ± 0.61, indicating a fairly positive nursing work environment (Table 2). Among individual items, nurses reported the highest mean scores for active quality assurance programs (3.85 ± 0.97), training programs for newly hired registered nurses (3.85 ± 0.96), and management that listens to and responds to staff concerns (3.81 ± 0.99). Items related to physician-nurse relationships (3.25 ± 1.17) and continuing education opportunities (3.50 ± 1.23) received relatively lower scores, suggesting potential areas for organizational improvement.

Table 4.2 (a) Practice Environment Scale of the Nursing Work Index

Statement	N	Mean ± SD
Nurse participation in hospital affairs	**210**	**3.72 ± 0.67**
Career development/clinical ladder opportunity.	210	3.66 ± 1.17
Opportunity for staff nurses to participate in policy decisions.	210	3.62 ± 1.23
A chief nursing officer who is highly visible and accessible to staff.	210	3.80 ± 1.03
A chief nursing officer equal in power and authority to other top-level hospital executives.	210	3.64 ± 1.04
Opportunities for advancement.	210	3.77 ± 1.06
Administration that listens and responds to employee concerns.	210	3.81 ± 0.99
Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).	210	3.67 ± 1.05
Staff nurses have the opportunity to serve on hospital and nursing committees.	210	3.66 ± 1.09
Nursing administrators consult with staff on daily problems and procedures.	210	3.85 ± 0.97
Nurse foundations for quality of care	**210**	**3.75 ± 0.62**
Active staff development or continuing education programs for nurses.	210	3.50 ± 1.23
High standards of nursing care are expected by the administration".	210	3.75 ± 1.06
Working with nurses who are clinically competent.	210	3.77 ± 1.05
A clear philosophy of nursing that pervades the patient care environment.	210	3.69 ± 1.07
An active quality assurance program.	210	3.85 ± 0.97
A preceptor program for newly hired RNs.	210	3.85 ± 0.96
Nursing care is based on a nursing, rather than a medical, model.	210	3.81 ± 0.99

Table 4.2 (d) Practice Environment Scale of the Nursing Work Inde

Written, up-to-date nursing care plans for all patients.	210	3.82 ± 1.04
Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one to the next.	210	3.71 ± 0.94
Use of nursing diagnoses.	210	3.75 ± 1.01
Nurse manager ability, leadership and support	**210**	**3.72 ± 0.78**
A supervisory staff that is supportive of the nurses.	210	3.60 ± 1.21
Supervisors use mistakes as learning opportunities, not criticism.	210	3.80 ± 1.06
A nurse manager who is a good manager and leader.	210	3.83 ± 1.10
Praise and recognition for a job well done.	210	3.65 ± 1.14
A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.	210	3.71 ± 1.09
Staffing and resources adequacy	**210**	**3.68 ± 0.73**
Adequate support services allow me to spend time with my patients.	210	3.68 ± 0.93
Enough time and opportunity to discuss patient care problems with other nurses.	210	3.68 ± 1.08
"Enough registered nurses to provide quality patient care.	210	3.67 ± 1.13
Enough staff to get the work done.	210	3.71 ± 1.06
Collegial nurse–physician relations	**210**	**3.60 ± 0.77**
Physicians and nurses have good working relationships.	210	3.25 ± 1.17
A lot of team work between nurses and physicians.	210	3.72 ± 1.10
Collaboration (joint practice) between nurses and physicians.	210	3.84 ± 0.98

4.4 Family -Centered Care Scale (Current)

Current family-centered care practices were rated moderately by nurses, with an overall mean score of 2.45 ± 0.47 (Table 3). The highest-rated items included staff support for families in understanding the disease process (2.54 ± 0.97) and explaining procedures to families (2.56 ± 0.89). Items reflecting family involvement in decision-making, such as considering the family the primary decision maker (2.35 ± 0.90) and parental input into hospital policy (2.35 ± 0.89), received lower mean scores, indicating limited implementation of shared care practices.

Table 4.3 (a) Family -Centered Care Scale (current)

Item	**N**	**Mean ± SD**
The family as the constant of the child's life	**210**	**2.76 ± 0.69**
Staff work with families to determine the level of participation in direct care and decision-making that suits the family's needs best	210	3.08 ± 0.85
Staff encourage parents and siblings to come and go any time that meets the family's needs	210	2.44 ± 0.89
Parent and professional collaboration	**210**	**2.41 ± 0.54**
The family is the key decision maker in the care of their infant	210	2.35 ± 0.90
Staff determine the infant's needs in consultation with the family and other health professionals	210	2.43 ± 0.88
Parents contribute to the development and review of hospital policies and practices	210	2.35 ± 0.89
Parents and siblings are involved in staff continuing education programs	210	2.43 ± 0.93
"Educational programs and written material convey that families are key actors in care"	210	2.50 ± 0.98
The admission process is used to begin involving the family as members of the care team	210	2.47 ± 0.93
Hospital facilities, policies, and procedures foster family choices for participation	210	2.47 ± 0.94

Table 4.3 (b) Family -Centered Care Scale (current)

"Interviews with families are conducted in a private location"	210	2.34 ± 0.94
Explanations are presented to families using varied techniques to meet learning needs	210	2.48 ± 0.91
Staff are aware that families take time to develop trust	209	2.44 ± 0.97
Staff discuss with families what helps them cope during hospitalization	210	2.30 ± 0.93
Staff assess the level of understanding and skills of the family before and after teaching	210	2.35 ± 0.92
Sharing information with parents	**210**	**2.44 ± 0.61**
Staff promote preadmission programs for families prior to scheduled NICU admission	210	2.52 ± 1.01
After emergency/unscheduled admission, families are supported to adjust to care	210	2.42 ± 0.97
Information is communicated to help families understand each aspect of infant care	210	2.48 ± 0.98
Families are encouraged to discuss or chart information about infant care	210	2.43 ± 0.92
Staff coordinate the flow and sequence of information given to families	210	2.34 ± 0.91
Parent-to-parent support	**210**	**2.37 ± 0.65**
Staff encourage parents to discuss concerns with other parents	210	2.44 ± 0.95
Staff provide programs and support for parents, siblings, and extended family	210	2.48 ± 0.93
Staff assess the needs and concerns of siblings	210	2.20 ± 0.88
There is a designated comfortable area for parents to gather	210	2.34 ± 0.96

Table 4.3(c) Family -Centered Care Scale (current)

Developmental needs	**210**	**2.44 ± 0.60**
Staff help families stay connected with significant others	210	2.35 ± 0.92
Direct care managers have adequate knowledge in infant development	210	2.50 ± 0.98
Hospital brochures accurately describe the health care experience	210	2.43 ± 0.88
Staff maintain familiar routines for each infant and family	210	2.40 ± 0.90
Staff assess the infant's interaction with staff and family	210	2.51 ± 0.90
Emotional and financial support for families	**210**	**2.46 ± 0.67**
Same staff are assigned to care for the infant and family when possible	210	2.37 ± 0.93
Families are given information/support to understand illness process and care	210	2.54 ± 0.97
Staff recognize financial strain and help families obtain support	210	2.38 ± 0.88
During procedures, a staff member explains what is happening to families	210	2.56 ± 0.89
Design of health care system	**210**	**2.45 ± 0.55**
Outpatient services are available daily and in the evening	210	2.38 ± 0.87
Written material is available in Arabic or other common languages	210	2.46 ± 0.93
A written summary about the infant is available in the family's official language	210	2.46 ± 0.96
Unit layout meets developmental and psychosocial needs of infant and family	210	2.43 ± 0.99
Resources are available to provide families with needed support"	210	2.57 ± 0.93
Parent evaluations are considered reliable sources of hospital performance	210	2.43 ± 0.83

Table 4.3 (d)Family -Centered Care Scale (current)

Staffing patterns match developmental and psychosocial needs of infants	210	2.44 ± 0.90
Emotional support for staff	**210**	**2.51 ± 0.56**
Guidelines exist for pain-relieving techniques during procedures	210	2.48 ± 0.99
Job descriptions include expectations of family-centered care"	210	2.57 ± 0.90
Continuing education helps staff learn to approach families effectively	210	2.50 ± 0.95
The hospital recognizes and rewards staff's family-centered care skills	210	2.42 ± 0.95
Staff are encouraged to plan/evaluate new programs and policies	210	2.49 ± 0.95
Staff can confidentially express concerns about care quality	209	2.59 ± 0.88
Family-Centered Care Scale Overall (current)	210	2.45 ± 0.47

4.5 Family -Centered Care Scale (necessary)

Nurses rated the necessity of family-centered care practices highly, with an overall mean of 3.83 ± 0.30 (Table 4), reflecting strong agreement on the importance of these practices. Items such as staff's ability to express quality concerns confidentially (4.05 ± 0.76) and continuing education to communicate effectively with families (3.99 ± 0.74) received the highest scores, highlighting nurses' appreciation for essential organizational support and training. Even the lowest-rated item, the family as a primary decision maker (3.67 ± 0.49), remained above the midpoint, indicating consensus on the value of family-centered care across the board.

Table 4.4 (a) Family -Centered Care Scale (necessary)

Item	N	Mean ± SD
The family as the constant of the child's life	**210**	**3.86 ± 0.55**
Staff work with families to determine the level of participation in direct care and decision-making that suits the family's needs best	210	3.81 ± 0.74
Family-Centered Care Scale	210	3.91 ± 0.70
Parent and professional collaboration	**210**	**2.41 ± 0.54**
The family is the key decision maker in the care of their infant"	210	3.67 ± 0.49
Staff determine the infant's needs in consultation with the family and other health professionals	210	3.82 ± 0.76
Parents contribute to the development and review of hospital policies and practices	210	3.76 ± 0.78
Parents and siblings are involved in staff continuing education programs in various ways	210	3.64 ± 0.76
Educational programs and written material convey that families are the key actors in care	210	3.83 ± 0.81
The admission process is used to begin involving the family as members in the healthcare team	210	3.84 ± 0.84
Hospital facilities, policies, and procedures foster family choices for participation	210	3.80 ± 0.76
Interviews with families are conducted in a suitable location	210	3.80 ± 0.76
Explanations are presented to families using techniques suited to their needs and learning styles	210	3.90 ± 0.79
Staff are aware that families take time to develop trust	210	3.85 ± 0.79

Table 4.4 (b) Family -Centered Care Scale (necessary)

Staff discuss with the family what helps them cope during hospitalization	210	3.70 ± 0.83
Staff assess the level of understanding and skills of the family before and after teaching	210	3.83 ± 0.80
Sharing information with parents	**210**	**3.83 ± 0.45**
Staff promote preadmission information programs to familiarize families with NICU staff, routines, and equipment	210	3.82 ± 0.80
After emergency/unscheduled admission, there is an organized system to help families adjust	210	3.84 ± 0.77
Information is communicated to help families understand care, changes, coping strategies, and treatments	210	3.85 ± 0.81
Any family member involved in infant care is encouraged to share or chart information	210	3.84 ± 0.80
Staff coordinate the flow and sequence of information, prioritizing infant's needs	209	3.79 ± 0.72
Parent-to-parent support	**210**	**3.76 ± 0.48**
Staff encourage parents to share concerns with other parents (informally or in groups)	210	3.79 ± 0.77
Staff provide programs and support for parents, siblings, and extended family"	210	3.78 ± 0.74
Staff assess the needs and concerns of siblings	210	3.71 ± 0.76
There is a designated comfortable area for parents to gather	210	3.76 ± 0.87
Developmental needs	**210**	**3.84 ± 0.44**
Staff help families stay in touch with relatives and significant others	210	3.79 ± 0.81

Table 4.4 (c) Family -Centered Care Scale (necessary)

Direct care managers have adequate knowledge in infant development to support staff	210	3.83 ± 0.80
Hospital brochures accurately describe the healthcare experience for infants and families	210	3.82 ± 0.74
Staff maintain familiar routines for each infant and family	210	3.87 ± 0.76
Staff assess infant interaction with staff and family	210	3.91 ± 0.75
Emotional and financial support for families	**210**	**3.83 ± 0.48**
Whenever possible, the same staff are assigned to care for the infant and family	210	3.78 ± 0.73
Families are supported to understand illness process, choices, risks, and professional roles	210	3.89 ± 0.78
Staff recognize financial strain on families and assist them in obtaining help	210	3.78 ± 0.77
During procedures, a staff member explains to the family what is happening	210	3.88 ± 0.78
Design of health care system	**210**	**3.84 ± 0.40**
Outpatient services are available daily and evenings	210	3.75 ± 0.74
Written material is available in Arabic or other common local languages	210	3.90 ± 0.74
A written summary of infant information is available in the family's official language	210	3.87 ± 0.70
The unit's physical layout supports infant and family developmental/psychosocial needs	210	3.81 ± 0.80
Resources are available to provide families with appropriate support when needed	210	3.84 ± 0.76

Table 4. 4(d) Family -Centered Care Scale (necessary)

Parent evaluations are considered reliable sources about hospital performance	210	3.80 ± 0.83
Staffing patterns consider developmental and psychosocial needs of infants	210	3.90 ± 0.78
Emotional support for staff	**210**	**3.91 ± 0.45**
Guidelines assist staff during painful procedures (pain relief, calming techniques)	210	3.86 ± 0.80
Job descriptions and appraisals include expectations of family-centered care	210	3.85 ± 0.77
Continuing education helps staff learn to approach families effectively	210	3.99 ± 0.74
The hospital rewards staff's knowledge and skills in family-centered care	210	3.84 ± 0.76
Staff are encouraged to plan and evaluate programs/policies to improve family care	210	3.86 ± 0.79
Staff can confidentially express quality concerns about providing infant and family care	210	4.05 ± 0.76
Family-Centered Care Scale overall (Necessary)	210	3.83 ± 0.30

In the analysis of sociodemographic, characteristics and their relationship with the (current) family-centered care scale. The only significant variable was hospital type, with nurses in private hospitals recording higher mean scores (2.60 ± 0.48) than nurses in government hospitals (2.32 ± 0.42, $p < 0.001$). However, no statistically significant differences were observed in sociodemographic variables, including gender, educational level, work schedule, experience, number of patients, or education level in family-centered care. Other relevant details shown in table 5.

Table 4.5 Differences in Family -Centered Care scores (current) according to sociodemographic characteristics.

Variable	Category	N	Mean ± SD	p-value
Gender	Male	115	2.47 ± 0.46	0.610
	Female	95	2.43 ± 0.48	
	Total	210	2.45 ± 0.47	
Educational level	Diploma	24	2.49 ± 0.58	0.867
	Bachelor	144	2.45 ± 0.48	
	Master and above	42	2.43 ± 0.37	
	Total	210	2.45 ± 0.47	
Work shift	Day	26	2.53 ± 0.37	0.362
	Rotating shifts	184	2.44 ± 0.48	
	Total	210	2.45 ± 0.47	
Family-centered care education	Yes	146	2.44 ± 0.44	0.610
	No	64	2.48 ± 0.52	
	Total	210	2.45 ± 0.47	
Type of hospital	Governmental	112	2.32 ± 0.42	<0.001*
	Private	98	2.60 ± 0.48	
	Total	210	2.45 ± 0.47	

****** One-Way ANOVA test

For the family-centered care (necessity) scale. Statistically significant differences were observed only in educational level ($p = 0.017$). Nurses with a master's degree rated the necessity of family-centered care as the highest (3.93 ± 0.28), while those with a diploma degree rated it as the lowest (3.72 ± 0.29). No statistically significant differences were observed in gender, shift work, level of education in family-centered care, or type of hospital. Other relevant details presented in table 6.

Table 4.6. Differences in Family -Centered Care scores (necessary) according to sociodemographic characteristics

Variable	Category	N	Mean ± SD	p-value
Gender	Male	115	3.83 ± 0.30	0.854
	Female	95	3.82 ± 0.31	
	Total	210	3.83 ± 0.30	
Educational level	Diploma	24	3.72 ± 0.29	0.013*
	Bachelor	144	3.82 ± 0.31	
	Master and above	42	3.93 ± 0.28	
	Total	210	3.83 ± 0.30	
Work shift	Day	26	3.77 ± 0.27	0.264
	Rotating	184	3.84 ± 0.31	
	Total	210	3.83 ± 0.30	
	Total	210	3.83 ± 0.30	
Family-centered care education	Yes	146	3.85 ± 0.28	0.129
	No	64	3.78 ± 0.35	
	Total	210	3.83 ± 0.30	
Type of hospital	Governmental	112	3.82 ± 0.27	0.707
	Private	98	3.84 ± 0.34	
	Total	210	3.83 ± 0.30	

****** One-Way ANOVA test

Post hoc analysis (LSD) showed that nurses with a master's degree or higher scored significantly higher on family-centered care compared to diploma nurses ($p = 0.005$, MD = -0.217) and bachelor's nurses ($p = 0.025$, MD = -0.118), while no significant difference was found between diploma and bachelor's nurses ($p = 0.132$, MD = -0.099). This suggests that higher educational attainment is associated with more positive perceptions of family-

centered care.

Table 4.7: Multiple Comparisons of Family-Centered Care Scale Scores by Educational Level (LSD Test)

Educational level		Diploma	Bachelor	Master degree and above
Diploma	P- value	**	0.132	0.005
	Mean Difference	**	-0.099	-0.212
Bachelor	P- value	**	**	0.025
	Mean Difference	**	**	-0.117
Master and above	P- value	**	**	**
	Mean Difference	**	**	**

Correlation analysis showed a weak, statistically significant negative relationship between age and the Family-Centered Care (Current) scale ($r = -0.146$, $p = 0.035$). However, there was no statistically significant relationship between nursing experience and the Family-Centered Care (Current) scale ($r = -0.107$, $p = 0.121$) or the Family-Centered Care (Necessary) scale ($r = 0.034$, $p = 0.624$). In addition, the number of patients received care did not show any statistically significant relationship with the Family-Centered Care (Current) scale ($r = 0.045$, $p = 0.513$) or the Family-Centered Care (Necessary) scale ($r = -0.042$, $p = 0.546$) (table 8).

Table 4. 8. Spearman's correlation coefficients between age, nursing experience, number of patients, and measures of family-centered care (current and necessary)

Variable	Family-Centered Care Scale (Current)	Family-Centered Care Scale (Necessary)
Age	-0.146* (p = 0.035)	0.004 (p = 0.952)
Experience in Nursing	-0.107 (p = 0.121)	0.034 (p = 0.624)
Number of Patients	0.045 (p = 0.513)	-0.042 (p = 0.546)

Data analysis shows that a more positive practice environment is weakly associated with both current family-centered care practices (r = 0.18, p = 0.009) and necessary family-centered care practices (r = 0.15, p = 0.027). Interestingly, there is a weak negative association between current family-centered care and necessary family-centered care (r = -0.23, p = 0.001), suggesting that nurses who report providing more family-centered care perceive it as less necessary, which may reflect that some aspects of care are already being implemented. Other related data shown in table 9.

Table 4.9. Pearson Correlations between Practice Environment Scale, Family-Centered Care Scale (Current), and Family-Centered Care Scale (Necessary) (N = 210)

Variable	Practice Environment Scale	Family-Centered Care Scale (Current)	Family-Centered Care Scale (Necessary)
Practice Environment Scale		0.18**(p = 0.009)	0.15*(p = 0.027)
Family-Centered Care Scale (Current)	0.18**(p = 0.009, N = 210)		–0.23**(p = 0.001, N = 210)
Family-Centered Care Scale (Necessary)	0.15* (p = 0.027)	–0.23**(p = 0.001)	

In the current family-centered care model, age was entered as a predictor, but it was not statistically significant (B = -0.46, p = 0.193), indicating that nurses' age does not influence their perceptions of current family-centered care practices. In contrast, hospital type emerged as a statistically significant positive predictor (B = 0.274, p < 0.001), with nurses in private hospitals reporting higher perceptions of current family-centered care compared to public hospitals. Additionally, the practice environment measure was also a statistically significant predictor (B = 0.138, p = 0.009), indicating that more supportive practice environments are associated with higher ratings of current family-centered care. For the model predicting the need for family-centered care, educational level was not a statistically significant predictor (B = -0.031, p = 0.595), meaning that educational attainment does not significantly influence nurses' beliefs about the need for family-centered care. However, the practice environment measure again showed statistical significance (B = 0.076, p = 0.027), highlighting that better practice environments are associated with a stronger perception of the need for family-centered care. Other relevant details shown in table 10.

Table 4 10 .Predictors of family center care Scale (current& necessary): Multiple Linear Regression

Predictors of family center care Scale (current)						
Predictor	**B**	**Beta**	**t**	**p-value**	**95% CI**	
					Lower	**Upper**
Age	-0.46	-0.089		0.193	1.907	2.459
Type of hospital	0.274	0.293	4.413	< .001*	0.152	0.397
Practice environment scale	0.138	0.179	2.622	0.009*	0.034	0.242
Predictors of family center care Scale (necessary)						
Predictor	**B**	**Beta**	**t**	**p-value**	**95% CI**	
					Lower	**Upper**
Educational level	-0.031	-0.037	-0.532	.595	-0.146	0.084
Practice environment scale	0.076	0.153	2.232	0.027	0.009	0.144

Chapter Five

Discussion, Recommendations, and Conclusion

5.1 Introduction

This chapter compare the results of the studies that conducted on the same topic, also it will include the recommendations, limitations and conclusion of the study.

First, in regard to the study's sample and sampling method, the sample size considered enough for this study, as it helped in collecting enough information, this will facilitate the generalization process of our findings.

Also, the sample included representative participants that reflected the general population (multi-centered) and covered a lot of factors such as sociodemographic characteristics of the participants including age, educational level, and other factors that reflect the characteristics of entire population.

The data collection of the research was also strong, as manifested by the very low percentage of missing data.

5.2Discussion

The study showed that nurses rated the necessity of family-centered care practices highly, with an overall mean of 3.83 ± 0.30. The same findings of previous qualitative study (Heidari & Mardani-Hamooleh, 2020) showed that nurses' view of Family-Centered Care in Neonatal Intensive Care Units can create a favorable environment for involving family members in the neonatal care. According to the Humanistic Nursing Theory (Kleiman, 2010), the elevated ratings indicate that nurses acknowledge the family as a component of the patient's "lived experience," necessitating that comprehensive care includes both the infant and family to promote healing and growth. The alignment with (Heidari & Mardani-Hamooleh, 2020) further strengthens the idea that nurses appreciate FCC as it fosters a nurturing atmosphere,

increases trust, and encourages involved parental engagement. Also, another study (Tang et al., 2022) showed the same findings in which it was reflected that the majority of NICU nurses and doctors stated that FCC could be advantageous for newborns.
Also, the findings demonstrated that more positive practice environment is weakly associated with both current family-centered care practices ($r = 0.18$, $p = 0.009$) and necessary family-centered care practices ($r = 0.15$, $p = 0.027$). These findings disagreed with (Oude Maatman, et al., 2020) which showed that negative impact on the implementation of FCC in NICUs. On other hand, another three studies (Mirlashari, et al., 2020; van den Berg, 2017;Wong, et al., 2023), showed that positive work environment in the NICU can enhance family-centered care. The weak association between a favorable practice environment and both existing and essential FCC practices implies that, although encouraging settings promote family engagement, nurses might continue to emphasize FCC irrespective of environmental factors. From a Systems Theory (Becvar, 2012) viewpoint, FCC is integrated within the wider care system, but its execution might rely more on professional values than on contextual elements. This contrasts between all studies, where environmental obstacles impeded FCC, emphasizing that cultural and organizational contexts determine the degree to which practice environments affect FCC adoption.

The findings showed that current family-centered care practices were rated moderately by nurses, with an overall mean score of 2.45 ± 0.47 and the nurses rated the necessity of family-centered care practices highly, with an overall mean of 3.83 ± 0.30. Also, weak negative association between current family-centered care and necessary family-centered care ($r = -0.23$, $p = 0.001$), suggesting that nurses who report providing more family-centered care perceive it as less necessary. The same findings were showed by previous study (Dall'Oglio, Mascolo et al., 2022) which showed that the mean scores of Necessary activities showed higher values than those of Current activities of FCCQ highlighting that staff considered FCC activities more necessary than implemented. The gap between perceived necessity and actual implementation can be understood through the Theory of Planned Behavior (Rich, Brandes et al., 2015), which suggests that although attitudes towards a practice may be favorable, external obstacles frequently impede its regular utilization.

The results showed that educational level was not a statistically significant predictor ($B = -0.031$, $p = 0.595$). On other hand, previous study (Dall'Oglio, et al., 2022) showed that education level was independently associated with the perception of current sub-scales of the FCC. In our research, the absence of a notable correlation may be elucidated by the Family-Centered Care Framework (Kokorelias, et al., 2019), which posits that individuals' perceptions of FCC are predominantly influenced by their direct interactions, relationships, and communication dynamics with healthcare professionals (microsystem), rather than by more distant factors such as formal education. From this perspective, the manner in which staff execute the principles of FCCnamely respect, collaboration, and information sharingmight mitigate disparities that education could otherwise introduce.

Also, the study found that no statistically significant relationship between nursing experience and the Family-Centered Care (Current) scale ($r = -0.107$, $p = 0.121$) or the Family-Centered Care (Necessary) scale ($r = 0.034$, $p = 0.624$). On other hand, previous study (Sereno, 2025), which reflected that level of hospital experience was significant predictor of both current practice and necessary practice total scores. From the standpoint of health literacy (Andrus & Roth, 2002, p 282), this distinction may suggest that theoretical knowledge (education) reveals deficiencies, whereas experiential knowledge (hospital exposure) strengthens comprehension of the implementation of FCC.

Our findings showed that hospital type emerged as a statistically significant positive predictor ($B = 0.274$, $p < 0.001$), with nurses in private hospitals reporting higher perceptions of current family-centered care compared to public hospitals indicating that the hospital's environment affect FCC. The same findings suggested by previous study (Butler et al., 2025) which reflected that hospital culture and environment consider as significant predictor for FCC.

5.3 Conclusion

In conclusion, while nurses usually assess their work environment highly, the middling evaluations of present family-centered care methods indicate a need for change, particularly in public institutions.

Furthermore, the findings indicate that greater educational attainment and supportive practice settings significantly improve views of the need for and quality of family-centered care, emphasizing the need of creating both educational and institutional support in nursing practice.

5.4 Recommendations

5.4.1 Recommendations for nurses

- Participate in ongoing professional training related to FCC, particularly for individuals with lower educational backgrounds.

- Encourage partnership with families despite workload and shift-related obstacles.

- Promote better staffing ratios to enable effective FCC implementation.

5.4.2 Recommendations for families

- Engage actively in care processes and decision-making, since family involvement has been proven to enhance outcomes.

- Offer insights to healthcare teams to emphasize unmet needs and enhance FCC practices.

- Obtain knowledge and training from nurses to enhance patient care assistance

5.4.3 Recommendations for decision makers (Administrators & Policy Makers)

- Allocate resources to FCC training initiatives, specifically aimed at nurses.

- Enhance staffing ratios and decrease patient load per nurse to optimize FCC implementation.

- Create guidelines that promote FCC as a standard procedure in both public and private healthcare facilities.

- Establish encouraging practice settings that enable nurses to involve families in the care of patients

5.4.4 Recommendations for future studies:

- Investigate obstacles and enablers to the execution of FCC in both public and private healthcare facilities.

- Examine how age, hospital type, practice environment affect FCC practices.

- Assess the impact of FCC-centered educational and training initiatives on nurses' practices and perspectives.

- Investigate family viewpoints on FCC to contrast with nurses' opinions

5.5 Limitations

1- The sample size in this study may be fairly small. This constraint revealed that the study's sample size may be restricted, thereby impacting the extent to which the results may be generalized. A small size of sample may reduce the power of statistic in this study, and make the detection of significant differences or associations more challenging. It may also increase the risk of sampling bias and limit the ability to draw robust conclusions.

2- The use of convenience sample increases the risk for bias and may affect the generalizability of the findings.

3- Political issues in the intended site affected the data collection related to political constrain.

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Appendices

Appendix A: Study's tools and consent form

Consent Form - الموافقة المستنيرة

تاثير بيئة العمل على الرعاية المرتكزة على الأسرة بين الممرضين في وحدات العناية المركزة لحديثي الولادة في المستشفيات الحكومية والخاصة في الضفة الغربية، فلسطين

يتم إجراء هذا البحث العلمي كمتطلب لرسالة التخرج من تخصص ماجستير تمريض الأطفال من جامعة القدس - أبو ديس
تهدف هذه الدراسة لتقييم العلاقة بين بيئة العمل ومركز الرعاية الأسرية بين الممرضات في وحدة العناية المركزة لحديثي الولادة. ستبقى المعلومات سرية ومخفية، وستكون المشاركة في الدراسة اختيارية، ويحق للمشارك الإنسحاب من الدراسة في أي وقت يريده دون أي توابع، علما أن المعلومات لن يتم استخدامها سوى للغرض البحثي، ويمكن للمشارك في الدراسة الحصول على نتائج البحث عند الإنتهاء من تحليلها
هذا البحث تحت إشراف الدكتور أحمد العايدي.
إذا كنت موافق/موافقة على المشاركة في الدراسة فنطلب منك الإجابة على الاستبيان بشكل كامل
في حال وجود أي استفسار، يمكن التواصل مع الباحث الرئيسي الطالبة مجد عوني عبد الهادي جدع - +972 59-548-0790
ستحتاج من 10 إلى 15 دقيقة للإجابة على هذا الإستبيان
شكرا لك

التاريخ---------

التوقيع ---------

Questionnaire

The Influence of the Work Environment on Family-Centered Care among Nurses in Neonatal Intensive Care Units

Part One: Characteristics of Participants

- Age _____
- Gender: Female Male
- Educational level: Diploma Bachelor Master and above
- Experience in Nursing: _____
- Experience in Neonate care nursing: _____
- Work shift: Day Rotates shift
- On the current or last shift you worked, how many patients did you care for? _____
- Family-centered care education experience: Yes No

Part Two: Practice Environment Scale Of The Nursing Work Index

	Item	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
1	Adequate support services allow me to spend time with my patients.				
2	Physicians and nurses have good working relationships				
3	A supervisory staff that is supportive of the nurses. .				
4	Active staff development or continuing education programs for nurses.				
5	Career development/clinical ladder opportunity.				
6	Opportunity for staff nurses to participate in policy decisions.				
7	Supervisors use mistakes as learning opportunities, not criticism.				
8	Enough time and opportunity to discuss patient care problems with other nurses				
9	Enough registered nurses to provide quality patient care.				
10	A nurse manager who is a good manager and leader.				
11	A chief nursing officer who is highly visible and accessible to staff				
12	Enough staff to get the work done				
13	Praise and recognition for a job well done.				
14	High standards of nursing care are expected by the administration.				
15	A chief nursing officer equal in power and authority to other top-level hospital executives				
16	A lot of team work between nurses and physicians.				
17	Opportunities for advancement				

18	A clear philosophy of nursing that pervades the patient care environment.				
19	Working with nurses who are clinically competent.				
20	A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.				
21	Administration that listens and responds to employee concerns.				
22	An active quality assurance program.				
23	Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).				
24	Collaboration (joint practice) between nurses and physicians.[1]				
25	A preceptor program for newly hired RNs				
26	Nursing care is based on a nursing, rather than a medical, model.				
27	Staff nurses have the opportunity to serve on hospital and nursing committees.				
28	Nursing administrators consult with staff on daily problems and procedures				
29	Written, up-to-date nursing care plans for all patients.				
30	Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next.				
31	Use of nursing diagnoses				

Part Three: Family -Centered Care Scale For Hospital Nurses

		Current					***Necessary***				
	Item	***Strongly agree***	***Agree***	***Neutral***	***Disagree***	***Strongly disagree***	***Strongly agree***	***Agree***	***Neutral***	***Disagree***	***Strongly disagree***
1	Staff encourage parents and just in case also siblings to come and go any time that meets the family's needs										
2	Staff work with families to determine the level of participation in direct care and decision-making that suits the family's needs best.										
3	The family is the key decision maker in the care of their infant										

4	Staff determine the infant's needs in consultation with the family and other health professionals										
5	Parents contribute to the development and review of hospital policies and practices.										
6	Parents and siblings are involved in staff continuing education Programs in various ways.										
7	Educational programs (for family members) and written material convey the sense that families are the key actors in care										
8	The admission process is used, when possible, as an opportunity to begin involving the family as members in the health care team.										
9	Hospital facilities, policies, and procedures foster family choices for participation.										
10	Interviews with families are conducted in a private location										
11	Explanations are presented to the family, using a variety of techniques depending on the individual needs and learning styles of the family.										
12	Staff are aware of and take approaches that address the fact that families take time to develop trust										
13	Staff discuss with the family what helps them deal with events during hospitalization										
14	Staff assess the level of understanding and skills of the family before and after teaching										
15	Staff promote, when possible, the infant's preadmission information program, through which families familiarize with hospital ward staff, routines, and equipment prior to a scheduled admission to the NICU										
16	After an emergency admission or unscheduled admission, there is an organized system for helping families understand and adjust to the health care experience.										
17	Information is routinely communicated to help families understand each aspect of care that their infant will experience such as anticipated sequence of events, reasons for change/treatment/procedure, ways to cope										
18	Any family member significantly involved in the infant care is encouraged to discuss or chart information about the care of their infant.										
19	Staff coordinate the flow and sequence of information given to families, ensuring that										

	the infant's needs are apriority										
20	Staff encourage parents to discuss concerns with other parents with similar experiences informally or in formal parent groups										
21	Staff provide programs and support for parents, siblings and members of the extended family to assist families in managing needs										
22	Staff assess the needs and concerns of siblings.										
23	There is a designated comfortable area for parents to gather										
24	Staff help family to establish/stay in touch with their family and significant others.										
25	Direct care managers have an adequate knowledge in infant development to support hospital staff in the practice of family-centered care.										
26	Hospital brochures accurately describe the health care experience for infant and their families										
27	Staff maintain familiar routines for each infant and family										
28	Staff assess the infant interaction with staff and family										
29	When possible, the same staff are assigned to care for the infant and family										
30	Information and support are provided to help families understand the illness process and the impact on the infant and family, choices and risks, services, and roles of various health professionals										
31	Staff recognize the financial strain on families and assist them in obtaining help										
32	During procedures, a staff member is designated to explain to the family exactly what is happening.										
33	Outpatient services are available daily and in the evening hours.										
34	All written material for families is available in Arabic or in the mostly commonly spoken languages										
35	A written summary of relevant information about the infant is available in the primary official language of the family.										
36	The physical layout of the unit is designed to meet the developmental and psychosocial needs of infant and family										
37	Resources exist to help provide families with the appropriate support that they need at varying times										

38	Parent evaluations are considered reliable sources of information about how well the hospital meets their needs										
39	Staffing patterns are planned according to the developmental and psychosocial needs of infant.										
40	There are guidelines to assist staff in providing care during painful procedures such as:implementing pain-relieving techniques and ways to keep the child calm during and after the procedure										
41	Job descriptions and performance appraisal systems incorporate expectations of family-centered care such as: knowledge of family dynamics and skills in collaboration, problem solving and interventions that address family's needs										
42	Continuing education programs provide opportunities for staff to learn to approach families effectively										
43	The hospital recognizes and rewards staff's specific knowledge and skills that are needed to care for infants and families										
44	Staff are encouraged to identify, plan and evaluate new programs, policies and procedures to improve the quality of infant and family care										
45	Staff are able to express confidentially to those responsible for assuring quality care, their concerns related to those demands of providing care for their infants and families										

Al Quds University
Faculty of Health Professions
Jerusalem –Abu Dis

جامعة القدس
كلية المهن الصحية
القدس – أبو ديس

Research Ethics Subcommittee of Faculty of Health Professions
Letter of approval

Feb. 24, 2025
Ref. No.: RESC/2025-28

Dear Applicants, **(Dr. Ahmad Juma, Ms. Majd Jada'a)**

Program: **MSc Nursing Department**

The Research Ethics subcommittee of the Faculty of Health Professions has recently reviewed your proposal entitled (**The Influence of the Work Environment on Family-Centered Care Among Nurses in Neonatal Intensive Care Units in Governmental and Private Hospitals in the West Bank, Palestine**) submitted by (**Dr. Ahmad Juma**). Your proposal is deemed to meet the requirements of research ethics at Al-Quds University, but further assessment is required by the Central Research Ethics Committee of Al-Quds University. We wish you all best for the conduct of the project.

Hussein ALMasri, PhD

Hussein ALMasri

Associate Professor of Medical Imaging
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تأثير بيئة العمل على الرعاية المرتكزة على الأسرة بين الممرضين في وحدات العناية المركزة لحديثي الولادة في المستشفيات لحكومية والخاصة في الضفة الغربية، فلسطين

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الملخص.

الخلفية: تُعد وحدات العناية المركزة لحديثي الولادة (NICUs) أماكن مليئة بالضغوط، حيث يحتاج الخُدّج إلى البقاء فيها لفترات علاجية طويلة. وغالباً ما يعاني الوالدان من مشاعر الذنب بعد دخول طفلهم إلى وحدة العناية المركزة، مما يؤدي إلى ضغوط نفسية كبيرة. في المقابل، تُعد الرعاية المرتكزة على الأسرة (FCC)جانباً أساسياً من رعاية حديثي الولادة، إذ توفر دعماً نفسياً وعاطفياً للوالدين وتعزز مشاركتهم في رعاية أطفالهم.

الهدف: هدفت هذه الدراسة إلى تقييم تأثير بيئة العمل على ممارسات الرعاية المرتكزة على الأسرة بين الممرضين والممرضات العاملين في وحدات العناية المركزة لحديثي الولادة.

المنهجية: استخدمت هذه الدراسة تصميماً كمياً مقطعياًمع أسلوب العينة الملائمة، وشارك فيها ما مجموعه 230 ممرضاً وممرضة من وحدات العناية المركزة لحديثي الولادة. تم جمع البيانات باستخدام ثلاث أدوات: أداة للبيانات الديموغرافية والاجتماعية، وأداتين لقياس بيئة العمل ومستوى تطبيق الرعاية المرتكزة على الأسرة.

النتائج: أظهرت النتائج أن نوع المستشفى كان المتغير الوحيد ذو التأثير المعنوي على مقياس الرعاية المرتكزة على الأسرة الحالي؛ إذ حصل الممرضون في المستشفيات الخاصة على متوسط درجات أعلى (2.60 ± 0.48) مقارنة بنظرائهم في المستشفيات الحكومية (2.32 ± 0.42 .(p < 0.001, أما بالنسبة لمقياس أهمية الرعاية المرتكزة على الأسرة، فكانت الفروق واضحة بحسب المستوى التعليمي (p = 0.017)، حيث حصل الممرضون الحاصلون على درجة الماجستير على أعلى تقييمات (3.93 ± 0.28)، بينما كانت أدنى لدى حملة الدبلوم (3.72 ± 0.29). وأظهر تحليل المقارنات البعدية (Post hoc) فروقاً ذات دلالة إحصائية، حيث سجل الممرضون الحاصلون على الماجستير درجات أعلى من حملة الدبلوم (p = 0.005) والبكالوريوس(p = 0.025) ، دون وجود فرق معنوي بين حملة الدبلوم والبكالوريوس (p = 0.132).كما أظهرت النتائج علاقة سلبية ضعيفة بين العمر والرعاية الحالية المرتكزة على الأسرة (r = -0.146, p = 0.035)، بينما لم يكن لسنوات الخبرة التمريضية أو عدد المرضى علاقة معنوية بأي من المقياسين. أظهرت بيئة العمل الإيجابية ارتباطاً ضعيفاً مع كلا المقياسين(r = 0.18, p = 0.009 ؛ r = 0.15, p = 0.027).ومن المثير للاهتمام، وجود علاقة سلبية ضعيفة بين الرعاية الحالية والمطلوبة المرتكزة على الأسرة .(r = -0.23, p = 0.001) كما برز نوع المستشفى (B = 0.274, p < 0.001)

وبيئة العمل (B = 0.138, p = 0.009) كمؤشرين معنويين لتصورات الرعاية الحالية المرتكزة على الأسرة.
الخلاصة: على الرغم من أن الممرضين ينظرون إلى بيئة عملهم بإيجابية عامة، فإن التقييمات المتوسطة لممارسات الرعاية المرتكزة على الأسرة تُبرز الحاجة إلى تحسينها، لا سيما في المستشفيات الحكومية. وتشير النتائج إلى أن التحصيل العلمي الأعلى وبيئات العمل الداعمة يعززان بشكل ملحوظ إدراك أهمية وجودة الرعاية المرتكزة على الأسرة، مما يؤكد أهمية دعم التعليم والبيئة المؤسسية في تحسين الممارسة التمريضية.
الكلمات المفتاحية: بيئة العمل، الرعاية المرتكزة على الأسرة، التمريض، وحدة العناية المركزة لحديثي الولادة، فلسطين.