PUBLIC HEALTH NURSING IN THE MONITORING OF MATERNAL NEAR MISS: REFLECTIONS OF NURSING THEORY

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ABSTRACT

Objective: to reflect, from the perspective of Florence Nightingale's Nursing Theory, on the Nursing Process in the monitoring of maternal near miss. Method: this is a comparative reflexive study between the analysis of the process of monitoring maternal near miss cases and the metaparadigms of Florence Nightingale's Nursing Theory, applied to a management environment in public health and nursing performance, from the analysis of Nursing Theories in a master's degree discipline. Results: in Florence's theory, the concepts of health, disease, nursing and the environment are conveyed. And, in the trajectory of reflection, we revisit the elementary principles of the profession developed by Florence, which identify care (nursing), management (health/disease) and monitoring of maternal near miss in public health (environment). For the monitoring of maternal near miss, the concepts for action and analysis are identified. Final Considerations: the study provided to relate the perspective expressed in Florence Nightingale's theory with the role of nurses in monitoring the maternal near miss, based on metaparadigms.

Keywords: Nursing, Nursing Theory, Health management. Monitoring.

INTRODUCTION

The Unified Health System (SUS) is considered the most significant environment for the generation and experimentation of new knowledge, paradigms, theories and technologies for health in Brazil. The conceptions inserted in nursing theories are harmonizing to the principles of this System, supporting the development of technologies by adding to their origins the light and light-hard technologies, fundamental for the establishment of good nursing and health practices.(1,2)

In this perspective, nurses plan and offer answers to health needs in all spaces and throughout people's lives.(1,3) Its performance is based on the Systematization of Nursing Care, which enables the best results for care, which consist of the broad organization of work enabling the operationalization of the Nursing Process on a theoretical-philosophical basis, which is established from interrelated actions that qualify the care performed.(3) The Nursing Process is considered the gold standard for nurses' performance in various fields, systematizing care and the axis of professional practice in the perspectives of teaching, care, research and management.(1,5)

The performance of evidence-based nursing is based on the beginning of the logical and precise organization of the care conceived by Florence Nightingale, embracing the multiple aspects that involve the recovery of patients. Therefore, current nursing prescribes the application of scientific principles in care.(5)

Florence presented the fundamentals of nursing supported by a permanent reflection on the care and possibilities of preserving health in her main work, "Notes on Nursing - What it is, and What it is Not" written in 1859.(6) She states that there are ignored questions in care and care, even if they are visible in nursing practice when she discusses issues that need to be revisited and rediscussed.(1,5) Florence Nightingale is...
considered by some nursing researchers to have started the concept of improving results through evidence. In the 200 years after Florence's life, the nurse's work went beyond the bedside and hospitals, including a multitude of relevant and productive possibilities for public health and the well-being of citizens\(^1\,^5\).

When related to the action in direct care to patients, the concepts defined in nursing theories are clear, however, when they are established in other areas of activity, such as public health management, the application is not clearly organized. Nowadays, the diversity of fields of nursing practice calls for reflection concerning nursing theories and the development of the nursing process in different environments of direct patient care, as well as in multidisciplinary management contexts\(^1\,^2\,^5\). Therefore, it is perceived the need to analyze and reflect the application of theories in other areas of nursing practice. In this study, it is proposed to identify the application of the metaparadigms of Florence Nightingale's Theory in the process of monitoring the maternal near miss, comparing them with each other.

The World Health Organization (WHO) defines maternal near miss as a case of maternal morbidity in which women survived severe complications during pregnancy, childbirth or puerperium\(^7\,^8\). The monitoring of maternal near miss is currently established as a source of information to identify frailties and consequently generate actions to reduce maternal mortality. One of the main advantages is the obtaining of an expanded volume of information, because the number of cases is significantly higher than maternal deaths\(^7\,^8\).

The information produced serve to support health policies, mobilization and qualification of professionals for the care of pregnant, parturient and postpartum women. The approach to the occurrence of maternal near miss composes a comprehensive intervention with a view to strengthening the care network, contributes to the quality of care, evaluation and implementation of key interventions at the various levels of care\(^7\,^9\).

In order to guarantee the quality of care to women, considering the complex educational, social, political and economic reality, mechanisms are needed that, in addition to data storage, produce information and indicators. There is a need to develop guidelines and critically evaluate the current organization of prenatal care and its results. The data aim to monitor the impact on patient safety after the recommendations are made, and to define guidelines to assess the quality of care\(^8\,^11\).

In Paraná, the monitoring of maternal near miss is carried out by maternity hospitals, in a form developed in the Research Electronic Data Capture (REDCap) platform of SESA-PR. Monitoring is a field of activities in which nurses work in the capture, analysis, investigation and development of actions to qualify care for the pregnancy-puerperal cycle\(^9\). The objective of this construction was to reflect, from the perspective of Florence Nightingale's Nursing Theory, on the Nursing Process in the monitoring of maternal near miss.

**METHOD**

This is a reflexive study provoked from the proposal to develop the final work of a compulsory course, offered in the Graduate Program in Nursing, of the Federal University of Paraná.

The preparatory procedures for the development of the reflection process were: the identification of a Nursing Theory, based on the analysis of theories and their applications, that was compatible with the actions of monitoring the maternal near miss; and the organization of the fundamental concepts that support the application of maternal near miss monitoring with the theoretical legacy related to Florence Nightingale's practice.

To this end, from the objective of reflecting on the nursing process, a comparison was established between the development of monitoring of maternal near miss cases and Florence Nightingale's Theory and the synchrony of the metaparadigms between Theory and Monitoring. This reflexive comparison applies to the public health management environment and nurses' actions with the purpose of achieving results for the management of the Maternal and Child Care Line in the state and in the municipalities. In this case, the management of the Care Line has teams in the 22 Regional Health And 399
municipalities throughout the state, collaborating in the management of processes and services for approximately 150,000 births/year.\(^{(10)}\)

Considering the incidence of cases of maternal death in the State, it was concluded that around 40 per 100,000 live births are maintained until 2019\(^{(10)}\). In view of this fact and the technical-professional work of investigation and preventive intervention of the Technical Group of Speeding and Review of Deaths (GTARO), practical actions were directed to the development of the strategy of monitoring cases of maternal near miss. The GTARO aims to monitor, investigate, analyze and interpret the determinants of cases of maternal deaths to institute actions to prevent preventable deaths and qualify health care\(^{(12)}\). The strategy is aimed at identifying weaknesses in care and in the care network, as a monitoring approach instituted in the focus of the public policy of coping with maternal mortality, whose purpose contributes to the qualification of the care line based on timely and timely information\(^{(7,8,10,11)}\).

State monitoring is carried out by the multidisciplinary team, with the majority participation of nurses from the State Department of Health, regional health, primary health care and notifying hospital services. This information network occurs in the areas of health care and management, in which professionals mobilize to discuss cases and draw up joint plans to reduce preventable maternal deaths\(^{(7,10,11)}\).

This monitoring work is established with three objectives. The first is to identify which actions are useful to qualify hospital care, under the logic of patient safety, which are generated internally, in the investigation of cases of maternal near miss in the service\(^{(9,12)}\); the second is to identify failures in the line of care, from the perspective of the Three Delays Model\(^{(7,10,13)}\); and the third is to monitor and evaluate the cases to identify regional patterns to be faced through public policies and/or specific interventions\(^{(7,10)}\).

The "Model of the Three Delays", developed by Thaddeus and Maine (1994) states that maternal deaths are related to the time to obtain adequate care. 'Delay 1' is considered the delay for the woman to seek care, even when there are signs of risk. 'Delay 2' refers to the delay in gaining access to the necessary health services. The 'Delay 3' concerns the quality of health care provided to women by health services\(^{(9,10,13)}\).

**RESULTS**

In this reflexive trajectory, progress was made for the use of the metaparadigms of Florence Nightingale's Theory, parallel to those of monitoring the maternal near miss and presented in Chart 1.

**Chart 1. Analysis of Florence Nightingale's theory metaparadigms related to maternal near miss monitoring, Curitiba, Paraná, 2021**

<table>
<thead>
<tr>
<th>Metaparadigms</th>
<th>Florence Nightingale's Theory</th>
<th>Aspects of Maternal Near Miss Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health</strong></td>
<td>The individual is able to use all his potentials well(^{(5,6)}).</td>
<td>The pregnant woman, through personal and care resources, protects themselves and is protected from the risks of complications. For self-protection and protection of their conceptus, the pregnant woman uses her potentials of self-knowledge and self-care. The investigation of cases of maternal near miss provides the identification of health conditions(^{(7,14)}).</td>
</tr>
<tr>
<td><strong>Disease</strong></td>
<td>The reparative process instituted by Nature(^{(5,6)}).</td>
<td>A condition of severe morbidity related to pregnancy, childbirth, puerperium, which can occur even after the puerperium, but related to the puerperal pregnancy cycle(^{(6,10,14)}). Due to the non-occurrence of the expected conductions of pregnancy, and/or the existence of severe pregnancy-related disease, and/or the worsening of a pregnancy-related complication(^{(10,14)}). Analysis of the Three Delays that can be identified in the nurse's assessment(^{(6,14)}).</td>
</tr>
<tr>
<td><strong>Nursing</strong></td>
<td>Strategies to keep the individual in a disease-free state or, in which he/she can recover from the disease, or to establish the best possible conditions for nature to restore or preserve health, in order to prevent or cure the disease or injury(^{(5,6)}).</td>
<td>Actions at the points of the line of care that enable women in the pregnancy-puerperal cycle the best conditions of care, health education and access to appropriate services(^{(12,13,14)}).</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>The place where the patient and/or family members are located, and it may be health institutions. Considering the physical, social and psychological components, in an interrelated manner(^{(5,6)}).</td>
<td>Levels of care and environments through which women move to receive care during their pregnancy, delivery and puerperium process(^{(5,10,11)}). The monitoring and evaluation of cases of maternal near miss to qualify pregnancy care(^{(10,13,14)}).</td>
</tr>
</tbody>
</table>

**Source:** The authors (2021), based on the references indicated.
DISCUSSION

Florence Nightingale's Theory was selected for this reflection for establishing the elementary principles of the profession. Based on the concepts developed by Florence, the updated perspective of the role and importance of nurses in multiple contexts of action\(^{2,5,6}\). The limitation of this study is the low publication of articles that focus on nursing theories in health management environments. Thus, the concepts conveyed in the metaparadigms of Florence Nightingale's Theory are explained, with the development of maternal near miss monitoring, especially in the Brazilian scenario, culminating in the contributions of the reflexive essay to the nursing area.

The Health

The analysis of Florence's metaparadigms in the concept of health values the individual as a being potentially capable of recovering based on good individual and environmental conditions\(^{5,6}\). Riegel and collaborators affirm that the cure for Florence represents the broad meeting of body, mind and spirit to achieve and maintain balance\(^6\).

Similarly, pregnancy is considered a physiological fact in the health context, which has a positive outcome in almost all cases, especially if the minimum conditions are met\(^{14}\). There is an emphasis on ensuring good health so that women, adolescents and children can fully play their role in future development\(^{10,14}\).

The Disease

The concept of disease proposed in Nursing Notes indicates that "nature" gives evidence for promoting the recovery of patients. The drugs and some treatments were considered everything that could be done for the cure. Florence expands the concepts, stating that, while some treatments did not have proof of efficacy, care was the universal experience in patient care\(^{5,6}\).

The new conceptual framework of maternal morbidity defined it as any health condition attributed and/or aggravated by pregnancy and childbirth that has a negative impact on women's well-being. Maternal morbidity is a broad concept. It may include less severe situations, such as nausea in pregnancy, as well as more serious events such as eclampsia or postpartum hemorrhagic shock, which would be framed as maternal near miss. These events can have significant short- and long-term impacts on a woman and her family, on her physical, mental and/or sexual health, mobility, ability to work and socioeconomic status\(^{8,14}\).

In Paraná, cases of maternal near miss are identified from severe morbidities related to pregnancy, childbirth or postpartum and/or that occur during pregnancy, childbirth, puerperium and after the puerperium, considering patients who require intensive care, among other criteria. Cases of maternal near miss that have maternal death as the final outcome are especially evaluated\(^8\).

In the monitoring of the maternal near miss, the care is triggered by the identification of the case (thus considered a sentinel event). Signaling the need for immediate and timely action, preferably with the use of available technologies for the prevention of new cases, meeting the concept of event prevention and expanding the action to all levels of care\(^8\).

The Nursing

Florence considers that the results with health services depend on the degree of knowledge of the nurse and understood that the quality of care influenced the results for patients\(^{5,6}\). Due to the difficulties and requirements that affect the profession in charge of health care, nursing acts based on careful and experienced research\(^{1,2,6}\). Florence emphasizes that there should be critical thinking about care, enabling the initiative to act appropriately to support healing, based on a critical and holistic way of thinking\(^{5,6}\).

The monitoring of maternal near miss in Paraná was incorporated into the expertise of the Patient Safety Centers (NSP). One of the functions of the NSP is the identification, analysis and investigation of adverse events related to care. When a case of maternal near miss is considered an event of interest for Patient Safety, the NSP is the articulating body of information, notification and investigation of cases. With this, security barriers, updating and implementation of protocols and training so that
similar cases are avoided and assisted as efficiently as possible.\(^{(2,10,16)}\)

The monitoring of severe cases of morbidity, near miss, provides the necessary information to interfere in the care network and qualify it\(^{(7,10,14,15)}\). The wide participation of nurses in all levels of care and, specifically, in health management, enables their interference in the nursing team, as well as in the interdisciplinary team and in the community. The better the insertion of nurses in order to generate, in their level of action and influence, evidence-based care, the better the results for the health of pregnant women and newborns\(^{(1,2,4,16)}\).

**The Environment**

In issues related to both hospital and home environments, Florence discusses promoting clean, airy environments, with specific and detailed attention. She considers, as an inherent part of the assistance, the proper use of air, light, heat, cleanliness, silence, the selection and administration of diet. It is interesting to consider that all the attention Florence dispensed to the environment had a central focus: the well-being and recovery of patients\(^{(5,6)}\).

In the care of pregnancy and childbirth, there are countless environments in which patients receive attention to their condition and environmental factors can certainly be a source of well-being and reception or, a source of discontinuity and indifference. Even with the knowledge of the evidence for the prevention of maternal morbidity and mortality, some aspects still need to be revisited, in the sense of health and well-being promotion, not only of pregnant women, parturients and postpartum women, but also of the entire population.

Finally, we highlight the need for greater reflection and applicability on the environments related to pregnancy and childbirth. Providing humanized care in environments similar to the domestic environment, such as rooms that enable prepartum, childbirth and postpartum (PPP rooms), both in hospitals and in Normal Delivery Centers, increases maternal satisfaction and improves the progression of labor\(^{(17)}\).

Delivery environments need to be welcoming. Not necessarily sophisticated, nor with the ideal conditions from a structural point of view, but provide privacy and warmth. The environment should provide the conditions for birth to take place with qualified professional support and the presence of companions and well-being of the woman and newborn\(^{(17)}\).

**The contributions of the reflective essay to the area of Nursing**

The application of the metaparadigms of nursing theories is not explicit in all contexts of nursing practice. Knowledge, skills and attitudes support actions, constituting the focus of their practice, and it is up to it to coordinate the care process in the different areas of professional practice. Florence Nightingale’s reference generates a weighting that enriches the reflection and practice of care in various contexts. Their visionary collaboration is an inspiration for nurses who today have varied, growing and challenging goals.

**FINAL CONSIDERATIONS**

The present reflection was provoked by professional concern about the concatenation between the public health issues of the Maternal Child Care Line, especially the monitoring of the maternal near miss, the Nursing Process and Florence Nightingale’s theory. After the weighting trajectory, it is reiterated that the specific performance of the nursing professional in this integration includes, in an expanded way, both in the individual and collective sphere, health, disease, nursing and the environment.

These closely integrated universes should be considered and analyzed by the sphere of service management and, in the public health scenario, applying the monitoring of maternal near miss. This diligence for actions related to management, especially the Maternal And Child Care Line, as well as to the Patient Safety Centers, favors the identification of the necessary corrections, under the goal of preserving lives and promoting the qualification of care to women in the puerperal pregnancy cycle.
RESUMO

Objetivo: refletir, na perspectiva da Teoria de Enfermagem de Florence Nightingale, a respeito do Processo de Enfermagem no monitoramento do near miss materno. Método: trata-se de estudo reflexivo comparativo entre a análise do processo de monitoramento dos casos de near miss materno e os metaparadigmas da Teoria de Enfermagem de Florence Nightingale, aplicados a um ambiente de gestão em saúde pública e atuação do enfermeiro, a partir da análise de Teorias de Enfermagem em uma disciplina de mestrado. Resultados: na teoria de Florence são veiculados os conceitos de saúde, doença, enfermagem e ambiente. E, na trajetória da reflexão, revisitam-se os princípios elementares da profissão desenvolvidos por Florence, os quais identificam a assistência (enfermagem), a gestão (saúde/doenças) e o monitoramento do near miss materno na saúde pública (ambiente). Para o monitoramento de near miss materno, identificam-se os conceitos para atuação e análise.

Considerações Finais: o estudo proporcionou relacionar a perspectiva expressa na teoria de Florence Nightingale com a atuação do enfermeiro no monitoramento do near miss materno, a partir dos metaparadigmas.


ENFERMERÍA EN SALUD PÚBLICA EN EL MONITOREO DEL NEAR MISS MATERNO: REFLEXIONES DE LA TEORÍA DE ENFERMERÍA

RESUMEN

Objetivo: reflexionar, en la perspectiva de la Teoría de Enfermería de Florence Nightingale, acerca del Proceso de Enfermería en el monitorio del near miss materno. Método: se trata de estudio reflexivo comparativo entre el análisis del proceso de monitorio de los casos de near miss materno y los metaparadigmas de la Teoría de Enfermería de Florence Nightingale, aplicados a un ambiente de gestión en salud pública y actuación del enfermero, a partir del análisis de Teorías de Enfermería en una asignatura de maestría. Resultados: en la teoría de Florence se transmiten los conceptos de salud, enfermedad, enfermería y ambiente. Y, en la trayectoria de la reflexión, se revisan los principios elementales de la profesión desarrollados por Florence, los cuales identifican la atención (enfermería), la gestión (salud/enfermedad) y el monitorio del near miss materno en la salud pública (ambiente). Para el monitorio de near miss materno, se identifican los conceptos para actuación y análisis. Consideraciones Finales: el estudio proporcionó relacionar la perspectiva expresada en la teoría de Florence Nightingale con la actuación del enfermero en el monitorio del near miss materno, a partir de los metaparadigmas.


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