



## HIGH RISK PREGNANCY ASSESSMENT SKILLS AMONG RURAL HEALTH WORKERS: AN INTEGRATIVE REVIEW ANALYSIS

RYAN C. FONTANILLA, RN, LPT, MSN, MAEd-EM

Medical Colleges of Northern Philippines, Philippines

**ABSTRACT:** *This study aims to explore the essential skills and competencies required for nurses working in rural health units to effectively fulfill their duties and responsibilities within the community. To achieve this, the researchers conducted an integrative literature review, meticulously gathering relevant literature from reputable sources such as PsychInfo, Global Health, MedLine, Embase, EBSCO, ProQuest, PubMed, Science Direct, Scopus, and Emerald Insight. Rigorous analysis was then carried out based on predefined inclusion and exclusion criteria. The findings of this review revealed several crucial skills that are vital for nurses in rural health units. First and foremost, nurses should possess adept physical assessment and newborn care skills to ensure the health and well-being of mothers and infants. Additionally, effective communication and educational abilities are crucial for building strong relationships with patients and imparting essential health knowledge within the community. Furthermore, emotional skills are deemed essential as nurses often encounter emotionally charged situations, and their ability to provide empathetic care can significantly impact patient outcomes. Lastly, given the ever-advancing healthcare technology landscape, nurses must possess the skills to adapt and integrate technological advancements effectively, especially in the context of maternal and child care. By shedding light on these essential skills, this study contributes valuable insights that can help improve the quality of healthcare services provided by nurses in rural health units. These findings underscore the importance of a well-rounded skill set to meet the unique challenges and demands of community-based nursing in rural areas.*

*Key words: Inter professional, competencies, skills, health education, assessment, emotional skill, technology*

### INTRODUCTION

Pregnancy is a natural process, but around 20% of pregnancies are classified as high-risk due to health issues that can endanger the mother and/or fetus. These women require specialized care, including diagnostic and therapeutic procedures at all levels of complexity.



The Maternal, Neonatal, and Child Health Program by the Department of Health oversees prenatal and postpartum care, ensuring regular evaluation of clinical and obstetrical risks and providing necessary medical treatment, both outpatient and inpatient, at a reference hospital. Their technical manual for high-risk pregnancies standardizes processes, leading to a more efficient support system.

Nurses play a vital role in the multidisciplinary healthcare team, responsible for various levels of care support, including preventative, promotive, protective, and rehabilitative duties. The Department of Health's various programs support nurses in their roles, emphasizing their care for pregnant mothers, the parturient, and the puerperal. Despite this, there are limited studies focusing on nurses' functions in high-risk pregnancies due to their relatively low occurrence compared to low-risk pregnancies. However, given the complexity of high-risk pregnancies and the need for evidence-based specialized care, education and understanding in this field are crucial.

The study's goal is to review scientific literature on nursing care provided to pregnant women at high risk. By examining and presenting this scientific output, the discussion aims to enhance the clinical practices of nurses caring for high-risk expectant mothers across different settings. The ultimate objective is to contribute to the improvement of healthcare quality for both the mother-child pair, aligning with the Philippines' Sustainable Development Goals and the priority areas of the Department of Health and Department of Science and Technology in promoting health in the region and the nation. Furthermore, this integrative review aims to explore essential risk assessment skills required by nurses in rural health units. It provides valuable insights for readers, academics, lawmakers, and curriculum developers, enabling nurses to serve with confidence and effectiveness. The study's findings can enhance nursing education, aligning curricula with public health competencies. Additionally, it benefits rural health unit administrators by guiding competency-based activities and vital training programs to improve healthcare delivery and patient outcomes.

## **METHODOLOGY**

The review aims to synthesize available data on the Risk assessment of the Health Care providers in the Rural Health Units. The following are measures done to facilitate retrieval of pertinent data from the reviews in the internet.



### **Eligibility Standards**

The inclusion criteria for the studies were as follows: (1) focused on nurses' risk assessment skills in maternal and child care, (2) used any study design (quantitative, qualitative, or mixed-methods), (3) published in peer-reviewed scholarly journals, with no publication date restrictions, (4) written in English, Filipino, or any other language with an English translation, and (5) excluded unpublished research such as dissertations, theses, clinical reports, theory or technique publications, commentaries, and editorials.

### **Search Techniques and Selection of Studies**

This study employed electronic database searches, manual searches, and web searches to identify relevant studies. Bibliographic databases, such as PsychInfo, Global Health, MedLine, Embase, EBSCO, ProQuest, PubMed, Science Direct, Scopus, and Emerald Insight, were thoroughly researched. Search terms like "High-Risk Pregnancy Assessment Skills," "Assessment Competencies of Nurses," "Assessment Strategies for Public Health Nurses in Caring for High-Risk Pregnancy," and "Assessment Skills of Community Health Workers in High-Risk Pregnancy" were used. Only academic journal articles were selected. Additionally, Google Scholar and Philippine-based journal websites were utilized for further searches. The reference lists of pertinent research were manually reviewed. Fifty records were retrieved initially, and redundant items were removed. The preliminary screening of article titles and abstracts identified fifteen potentially relevant full-text papers. Two reviewers examined them for eligibility, addressing divergent perspectives, and resolving any remaining issues with the help of a third reviewer. Ultimately, twelve high-quality studies meeting the inclusion criteria were assessed in the review. The PRISMA diagram below illustrates the results of the literature review.

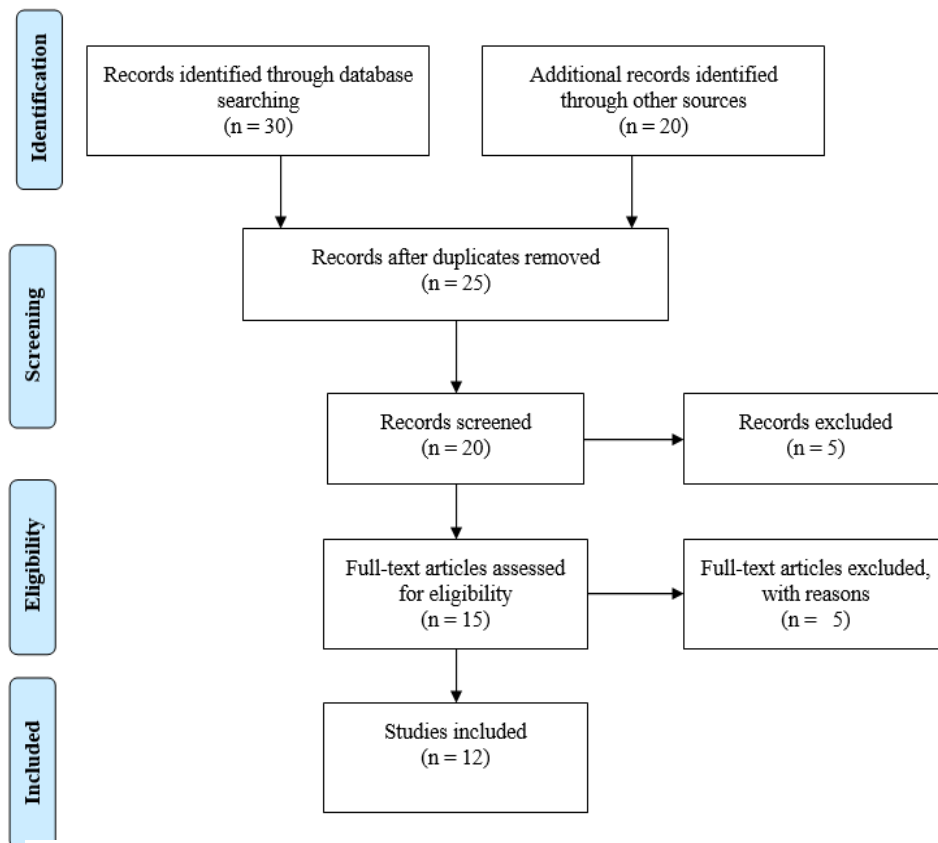


Figure 01: PRISMA Diagram in the selection of the literatures included in the study

### Extraction of data and quality evaluation

A second reviewer conducted a thorough cross-check of the primary author's data collection, covering study information such as authors' names, publication date, study location, setting, and measurement instruments used. The sociodemographic characteristics of participants, including sample size, age, and gender, were also examined. Additionally, the themes related to psychological help-seeking behavior, attitudes, as well as barriers and facilitators of help-seeking were analyzed. To evaluate the quality of each study, the following criteria were independently considered: relevance to the research topic, transparency of the technique, robustness of the evidence presented, and validity of data interpretation and analysis. The risk of bias in each study was assessed using two design-specific quality assessment tools: the Critical Appraisal Skills Program Qualitative Checklist for qualitative studies and the Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies for quantitative studies. For mixed-methods studies, the



quantitative and qualitative components were evaluated separately to ensure a comprehensive assessment of each study's quality.

### **Data Analysis Strategy**

Due to the significant heterogeneity of the studies in terms of participant characteristics, study design, measurement instruments employed, and reporting methods for the key findings, the narrative synthesis method was utilized to interpret and integrate the quantitative and qualitative evidence in the data analysis. Significant methodological constraint of the research included in this review is the lack of consensus regarding the concept of high-risk skills assessment.

### **RESULT**

The literature included in this study supports the assertion made in this study regarding the key nursing abilities required to meet the requirements of pregnant women at high risk. The responders in this study were nurses and midwives, which is a crucial factor because they provide direct care to pregnant women who are at high risk. As for the methodology, the study employs a variety of designs, including qualitative, quantitative, mixed, and document analysis; however, the predominant design is the qualitative research design, as the researchers in the literature wish to explore the respondents' skills and competencies in caring for high-risk pregnant clients.

Based on the concepts presented in their research, themes have been formed after reviewing the provided material. The studies of Prabhuswami Hiremath (2016) and Laza Vásquez, C., Pulido Acua, GP., Castiblanco Montaés, RA. (2012) demonstrate that the emotional viewpoint is a necessary ability for managing clients with high-risk pregnancies.

In a similar manner, the research of Jordan Tovera Salvador, Ben Ryan Jucay Sauce, Marc Oneel Castillo Alvarez, Ahrjaynes Balanag, and Rosario (2016); Marialda Martins, Marisa Monticelli, Odaléa Maria Brüggemann, Roberta Costa (2012); Shabina Ariff, Sajid B Soofi, Kamran Sadiq et al. (2010); Chisato Masuda, Shirley Kris

This skill is vital because, although it will not provide direct care, it will promote the transfer of knowledge and information to patients, making them aware of what is and is not



beneficial to their health during pregnancy. In a similar manner, people also prefer to identify the health education perspective with the successful improvement of their health problems, given that nurses are able to create rapport with their patients, so placing them in a position to accurately assess their health state. Also, given this backdrop, they can converse with their patient about their pregnancy, prospective difficulties, and management, informing them of the pros and cons of the various actions and assisting them in making decisions regarding their management.

The source of information that will guide the next step for the patient is the results of a proper assessment of both the mother and kid. The research by Reena Sethi<sup>1</sup>, Maya Tholandi, Dwirani Amelia, Alisa Pedrana, and Saifuddin Ahmed (2019) and Sakumi Akao, Keiko Tanabe, Bayarkhuu Dorjsuren, and Michio Higuchi (2013) suggests that new-born care and physical assessment should be emphasized in all training programs, as this is where nursing care for patients with such conditions should begin.

In addition, Patricia Hanna Crispn Milart, Ignacio Prieto-Egido, Cesar Augusto Daz Molina, and Andrés Martnez-Fernández (2019) and Errico LSP, Bicalho PG, Oliveira TCFL, and Martins EF (2017) examine recent technological developments. They concur that employing technology to evaluate the patient is an essential component of reducing the risk of pregnancy in high-risk pregnant women. Their research proves that the use of technology in the context of mother and child health is a promising notion, prompting them to recommit to enhancing these competencies among the community's midwives and nurses.

## **DISCUSSION**

The emotional aspect is one of the reoccurring factors in this study that may be considered an important issue while caring for women with high-risk pregnancies. The previous data indicates that emotional intelligence is key. Recognized was the evaluation of the physical and emotional status of the pregnant mother and her partner as a support system (Brooten D, Brooks L, Madigan EA, Youngblut JM, 2015). As a result, it is anticipated that interpersonal interaction problems in the home setting of women may increase or generate clinical symptoms of variable severity. Despite the fact that hospitalization is sometimes



viewed as a crucial moment for the woman's health recovery and the maintenance/termination of pregnancy, it is important to note that hospitalizations result in separation from the home environment and contribute to the woman's diminished loss of autonomy. During their hospital stay, hypertensive women experience elevated stress levels, especially in the week preceding deliveries. Due to their high-risk status, it is essential that these women and their health care providers collaborate to obtain the best possible outcomes by exchanging information and perspectives among all decision-makers (Black KD, 2017; Gupton A, Heaman M, Cheung LW, 2011). It is feasible to conclude that "complete" rest increases anxiety, despair, and medical issues by examining the speech of high-risk pregnant women hospitalized in the pre-delivery unit. An interview revealed that the higher the levels of stress and anxiety, the lower the levels of spiritual well-being, and that therapeutic access and consideration of the psychological, social, emotional, and spiritual components are essential for achieving holistic health. Therefore, encouraging women to talk about themselves and listening to them enables the nurse to outline the planning of stress-reducing actions, so alleviating the discomforts of mind-body spirit disharmony (Richter MS, Parkes C, Chaw-Kant J, 2017; Dunn LL, Handley MC, Shelton MM, 2014).

In addition, the study's results indicate that health education enhances communication skills. This study focuses on evaluation, counseling, help, and direction, as well as health education. The literature in this sector recommends a care model for high-risk expectant mothers in which the nurse adopts the duties of educating and counseling to promote healthy behavior, encouraging active involvement, giving decision-making support, and expanding the social network (Little M, Saul GD, Testa K, Gaziano C, 2015). Due to the special characteristics of high-risk pregnancies, educational programs must be developed. The nurses must assume the role of educators and share what they know about women's autonomy and how to prepare for pregnancy, childbirth, and postpartum care with the woman's family (Little M, Saul GD, Testa K, Gaziano C, 2015).

These portray nursing care as an autonomous action based on scientific knowledge, such as the context of physical assessment and the assessment of the newborn, as the nursing process follows the technical-scientific model that guides and systematizes the work, promoting continuous and qualified care, allowing the organization of conditions conducive



to its accomplishment, and documenting the assistance rendered (Twohy KM, Reif L, 2015). It was established that the nursing process technique for differentiated and individualized care was effective in terms of developing interventions and obtaining the essential physical, cognitive, and social resources to enable differentiated and personalised care. Good evaluation skills, especially physical and neonatal evaluations, are essential for the success of drugs delivered to high-risk pregnant patients.

In the context of technology as a skill for managing high-risk pregnancies, nurses and midwives used home consultations and weekly phone calls (or as needed) to monitor and support high-risk expectant mothers at home until the sixth week of life. Thus, unnecessary or premature hospitalizations can be prevented. The autonomy of the nurse in managing high-risk expectant moms and the adoption of light technology have decreased the rates of low birth weight, prematurity, and consequently infant mortality.

## **CONCLUSION**

Competencies and abilities are always crucial components of the nursing viewpoint, as they can lead the delivery of effective and efficient nursing care to clients and patients not only in hospitals but also in the community. In this study, the preceding data presentation supports the notion that nurses should possess skills and competencies in the areas of physical assessment and newborn care, communication and education, emotional skills, and the ability to comprehend technological advancements in the context of maternal and child care. According to the literatures presented in the preceding section of this article, these are the necessary abilities and skills of a community-based nurse.

## **IMPLICATIONS**

The study's implications hold significant potential for transforming the healthcare landscape, particularly in rural areas, where access to specialized care and resources may be limited. Enhancing nursing education and training is a fundamental step towards empowering healthcare professionals to meet the unique challenges of caring for high-risk pregnant women. By focusing on key skills such as physical assessment and newborn care, nurses and midwives can identify potential risks early on, leading to timely interventions and improved maternal and infant outcomes. Effective communication and emotional intelligence are vital for building trust and rapport with patients, especially in emotionally





charged situations that high-risk pregnancies often entail. Healthcare providers' ability to empathize and provide sensitive care can have a profound impact on patient well-being and satisfaction. Moreover, technological proficiency plays a crucial role in extending healthcare services to remote areas. Embracing technology, such as telemedicine and remote monitoring, enables rural health workers to reach expectant mothers who may face geographical barriers to healthcare facilities. This can reduce unnecessary hospitalizations, minimize travel-related stress for pregnant women, and improve overall healthcare access in underserved regions. Strengthening community-based nursing is of utmost importance in rural areas, where healthcare infrastructure may be limited. By emphasizing specialized care for high-risk pregnancies, rural health units can provide targeted interventions and support for expectant mothers in need. This includes ongoing education, counseling, and guidance throughout the pregnancy journey, empowering women to make informed decisions about their health and the health of their babies. Promoting interprofessional collaboration among healthcare providers is another key implication of the study. High-risk pregnancies often require a multidisciplinary approach, involving obstetricians, neonatologists, nurses, midwives, and other healthcare professionals. By fostering teamwork and communication between these stakeholders, patient care can be better coordinated and more comprehensive, leading to improved outcomes for both mothers and infants. For policymakers, the study's findings offer valuable insights into the specific needs and challenges faced by healthcare workers in rural areas. Armed with this knowledge, policymakers can develop targeted interventions and policies that support rural health units and promote better healthcare services for high-risk pregnant women. Allocating resources and funding towards training programs and technological advancements can significantly impact healthcare delivery and reduce disparities in maternal and child health. Finally, encouraging research in the field of high-risk pregnancy assessment skills among rural health workers is essential for continuous improvement in healthcare practices. Ongoing studies can further refine existing knowledge, identify best practices, and uncover innovative approaches to caring for high-risk pregnant women in resource-constrained settings.



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