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Effectiveness of an Education Program on Nurses' Knowledge, Attitudes, and Practices Regarding Skin-to-Skin Contact in Obstetrics Departments: A Pre-Post Quasi-Experimental Study

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Abstract: **Skin-to-skin contact at birth is an evidence-based practice that promotes maternal-infant bonding, initiation of breastfeeding, and neonatal physiological stability. Although encouraged by global initiatives such as the Baby-Friendly Hospital Initiative (BFHI), routine adoption is still low. Nurses, as primary care providers in obstetric wards, play a major role in implementing SSC, yet their knowledge, attitudes, and practices (KAP) are generally problematic. Within the Saudi Arabian context, additional cultural elements, including modesty concerns and limited standardized protocols, compound practice. This article provides a literature review underpinning a pre-post quasi-experimental study to determine the effectiveness of a structured educational program in enhancing nurses' KAP regarding SSC. Sixteen recent studies were examined to determine the benefits of SSC, nurses' current competencies, systemic and cultural barriers, and the impact of educational interventions. Evidence shows that while the benefits of SSC are well known, nurses' knowledge and practice gaps occur alongside generally positive attitudes. The evidence substantiates education as the most effective and culturally flexible answer to these barriers. The review constructs a strong argument for the proposed intervention, foreseeing that targeted education will improve nurses' SSC competency and adherence, resulting in improved maternal-infant health outcomes for Saudi obstetric hospitals.**

Keywords**: Skin-to-Skin Contact, Nursing Education, Obstetrics, Saudi Arabia, Knowledge, Attitudes, Practices, Quasi-Experimental Study.**

I. INTRODUCTION

Skin-to-skin contact (SSC) at birth is a crucial, evidence-based practice with dramatic physiological and psychological benefits for the newborn and mother, such as bonding, thermoregulation, and breastfeeding initiation. Globally, it is supported by the World Health Organization (WHO) and UNICEF through the Baby-Friendly Hospital Initiative (BFHI), with updated guidelines recommending an interval of up to two hours after birth [1]. In spite of such strong evidence, there is a significant disparity between it and consistent clinical practice. This gap is largely attributable to multifaceted barriers, including healthcare providers' knowledge, attitudes, and practices (KAP), with nurses playing the key role in its proper execution at the bedside.

In the Kingdom of Saudi Arabia, SSC implementation is even more complicated by a unique combination of rampant healthcare development and strong cultural traditions, including modesty norms. A preliminary review of local literature

demonstrates a consistent pattern: while attitudes may be positive, extensive knowledge deficits and inconsistent practices among nurses are a significant obstacle [6, 7, 8, 9]. This suggests an urgent need for targeted, culturally sensitive educational interventions to close this gap.

This is a comprehensive literature review for a pre-post quasi-experimental study that seeks to identify the effectiveness of a structured educational program in increasing nurses' KAP in SSC. The synthesis will combine international and regional evidence to: (1) elaborate on SSC's multifaceted benefits; (2) critically assess the current level of nurses' KAP; (3) identify specific implementation issues in the Saudi setting; and (4) assess education as an enabler of improved evidence-based practice, thereby establishing the necessity and rationale for the proposed research.

II. BODY OF ARTICLE

A. Search Strategy

A systematic and comprehensive search strategy was designed and executed to identify all the literature concerning the knowledge, attitude, and practices (KAP) of nurses towards SSC in obstetrics. The key electronic databases searched included PubMed, Scopus, CINAHL, and Google Scholar. The search strategy consisted of using a combination of keywords and Medical Subject Headings (MeSH) terms for three main concepts: (1) the intervention: "Skin-to-Skin Contact", "Kangaroo Mother Care", "Kangaroo Care"; (2) the population: "Nurse", "Nursing Staff", "Obstetrics", "Maternity", "Perinatal Care"; and (3) the outcomes: "Knowledge", "Attitude", "Practice", "Implementation", "Education", "Training". Boolean operators ("AND", "OR") were used to effectively combine these terms into targeted search queries. To impart regional relevance, region-specific keywords such as "Saudi Arabia", "Middle East", and "Gulf Cooperation Council countries" were also included. The search was limited to English- and Arabic-language studies, and the date of publication was between 2018 and 2023 to prioritize the most current evidence, though seminal older articles were included.

B. The Supreme Importance and Multifaceted Benefits of Skin-to-Skin Contact

The benefits of SSC are not anecdotal; they are strongly documented in a wide variety of physiological, psychological, and relational domains. Research consistently demonstrates that the practice is a cornerstone of humane and effective perinatal care, with effects that extend from the very first minutes of life throughout childhood.

Physiological Stabilization and Reduced Morbidity: The newborn's transition from the intrauterine to the extrauterine world is a period of extreme physiological stress. SSC is a natural stabilizer. The mother's body also offers perfect thermal regulation, more effectively than an incubator [2], preventing hypothermia, one of the greatest dangers for newborns. Furthermore, sensory stimulation of SSC stabilizes the infant's heart rate, respiratory rate, and oxygen saturation levels. The study by Agudelo et al. (2020) offers strong proof of its health-protective effects, as they showed that immediate SSC lowered the risk of early neonatal hospitalization by about 50% in comparison to separation at birth [3]. In their retrospective cohort study, the primary reasons for admission among separated infants were jaundice and feeding/sucking problems, both of which are avoided by the early establishment of breastfeeding promoted by SSC. This finding underscores that SSC is not just a supportive intervention but a primary preventive intervention against common neonatal morbidities, with the potential to reduce the burden on healthcare systems.

The Foundation of Successful Breastfeeding: The BFHI guidelines naturally pair SSC with breastfeeding success, and for good reason. The newborn placed on the mother's chest demonstrates innate crawling movements, ultimately self-attaching at the breast to initiate the first feed. This early initiation is critical in building up an adequate milk supply and getting the infant the colostrum, the "first vaccine" which is rich in antibodies and nutrients. Lau et al. (2018) conducted an analysis which concluded that intrapartum factors and the practice of SSC are strongly associated with early initiation of breastfeeding [14]. This was also supported by Bigelow and Power's (2020) research, which showed that SSC mothers maintained consistent rates of breastfeeding over three months, while control group rates without SSC fell considerably [4]. This continued practice of breastfeeding, initiated by SSC, has lasting implications for infant nutrition, immunity, and development.

Long-Term Psychological and Relational Benefits: SSC's impact extends beyond short-term physical health. It is a concentrated intervention for the mental health of the mother-infant dyad. The closeness promotes oxytocin secretion in both mother and infant—the so-called "love hormone"—which facilitates attachment, reduces stress, and decreases maternal

anxiety. Bigelow and Power's (2020) longitudinal study gives a staggering image of these long-term influences [4]. They found that SSC mothers experienced fewer depressive symptoms over the first year of the infant and a greater physiological reduction of stress, as measured by salivary cortisol levels, over the first postpartum month. Most impressively, the positive impact on mother-child interaction was evident even years later; children in the SSC group had more engagement and reciprocity in interaction with their mothers at age nine compared to children in the control group. This suggests that the secure attachment fostered by early SSC can lay the groundwork for a healthy relational trajectory from early childhood onwards into middle childhood.

Addressing Safety Concerns: In encouraging SSC, it is necessary to acknowledge and address safety concerns to enable its safe practice. The article by Tyrala et al. (2021) is a pertinent reminder of this fact [5]. Their Pennsylvania statewide hospital survey determined that while SSC was widely permitted, there were extensive gaps in education, monitoring, and standardization of practice. Alarmingly, about 40% of centers knew of adverse events during SSC, like falls and suffocation. These are not SSC contra-indications but a powerful argument for how SSC should be carried out. They highlight non-negotiable pre-requisites of adequate supervision, family education in safe positioning, and simple institutional guidelines to minimize risks. This emphasizes the important role of educated nurses who can enable SSC safely while monitoring the dyad closely.

C. Nurses' Knowledge and Attitudes Assessment: The Gap Between Evidence and Practice

Bedside application of evidence on SSC into daily clinical practice must necessarily depend on healthcare professionals at the bedside. Nurses, who are the permanent caretakers during the perinatal period, are the fulcrums of this process. However, there is a disturbing gap between the evidence known and practice, much of which stems from variations in nurses' knowledge, attitudes, and resulting practices.

The Global and Regional Knowledge Gap: The systematic scoping review of Hawsawi et al. (2022), spanning Arab countries, provides a stark sketch of this issue [6]. The review pooled findings from eight studies and uncovered a shared and worrying pattern: a widespread dearth of knowledge about SSC among mothers and healthcare providers alike. While the majority of mothers held positive attitudes towards the practice, implementation was low, largely due to lack of education and, notably, a deficiency of clear clinical guidelines. Health care providers, nurses, followed the same pattern in that they had poor knowledge and practice of Kangaroo Mother Care (KMC—a form of SSC for premature infants) despite generally positive attitudes. This discrepancy between practice and attitude illustrates that good intentions alone are not sufficient in the absence of knowledge and enabling systems to translate them into practice.

The Saudi Context: Education as a Key Differentiator: Studies conducted in Saudi Arabia confirm these findings and add another layer of complexity. Al Mutair et al.'s (2023) questionnaire was specifically constructed to evaluate nurses' KAP in the perinatal setting [7]. The findings of their research illustrated a clear correlation between a nurse's level of education and competence. Both bachelor's degree and master's degree nurses exhibited significantly more knowledge and ability in the implementation of SSC compared to their diplomate or other qualification-holding counterparts. This suggests that the quality and scope of nursing education are essential to preparing nurses for evidence-based practice. Similarly, the cross-sectional descriptive study by Almutairi (2022) involving 40 nurses in Jeddah found varying levels of understanding and inconsistent practices [8]. A significant statistical association was found between the implementation of SSC and the nurses' knowledge, their prior education on the topic, and their personal beliefs. Notably, the study revealed uncertainty among nurses regarding the impact of SSC on the neonate's brain development, a long-established benefit, suggesting a specific subject for education focus.

These studies collectively paint a clear picture: the strongest barrier to SSC routine practice in Saudi Arabia is less cultural resistance than an educational shortfall. Nurses may be willing but lack the detailed knowledge, hands-on skill, and confidence to advocate and conduct SSC routinely, especially in the presence of logistical barriers or outdated institutional practices.

D. Skin-to-Skin Care Implementation: Navigating Challenges and Strategies in Saudi Arabia

Implementation of evidence-based practice within the clinical setting is a dynamic tension between theoretical knowledge and practice application, with skin-to-skin contact (SSC) particularly demanding within the Saudi healthcare setting. Transition from research evidence to everyday bedside practice requires navigation of a multifaceted field of systemic,

professional, and cultural influences that interact to shape adoption levels and sustainability. Within the developing Saudi healthcare system, in which rapid modernization and traditional ways of life are found together, SSC implementation is both a reflection of international healthcare issues and culturally-specific factors that are best addressed by appropriately modified strategies and resolutions.

The systematic scoping review of Hawsawi et al. (2022) provides a precious key to understanding the challenges of implementation that are universal across Arab states, particularly applicable in the Saudi context [6]. Their research identified several primary barriers in operation to hinder SSC practice on a consistent basis. Most significant of these is a profound knowledge and guideline deficit prevalent in every aspect of healthcare. Failure to have standardized hospital procedure and procedural policy leaves SSC implementation to personal preference, and practice varies and shifts with personal levels of knowledge, attitude, and shift circumstances. This lack of standardization creates an environment of practice where SSC is optional rather than standard of care, subject to individual practitioners rather than institution-based protocols. Coming in tandem with this knowledge gap is the endemic problem of workload and staffing shortages. Under-staffing and high patient acuity create the context of an environment where nurses must prioritize clinical activities they perceive as being urgently life-sustaining or of immediate necessity, often at the expense of practices like SSC that are mistakenly regarded as elective or secondary to medical interventions. The hectic tempo of obstetric units, particularly high-volume delivery units, creates time pressures that discourage nurses from engaging in practices that require uninterrupted investment of time. In addition, cultural concerns and modesty are a special consideration in the Saudi context. Privacy and body exposure concerns may induce hesitation among both patients and healthcare providers that can deter prescribing and consumption of SSC activities. Though not necessarily representative of majority opinion, these concerns also further complicate the implementation context and are something cultural awareness and considered planning must be able to overcome.

However, the early research by Abdulghani et al. (2022) into maternal attitudes in Saudi Arabia does offer a valuable counterpoint to potential overdependence on cultural barriers as the primary implementation challenge [9]. Their research discovered a striking gap between theory and practice: although the actual rate of vaginal delivery followed immediately by SSC was still appallingly low at only 15%, almost all of the mothers said that they held positive attitudes and that the practice was acceptable to them. Only a very small minority said modesty or cultural attitudes could be a deterrent. This groundbreaking finding successfully shifts our view of the problem of implementation—the primary barrier is not maternal resistance but healthcare system limitations in offering and enabling the practice optimally. The low rates of implementation actually appear to be based on systemic failures rather more than cultural resistance. These systemic problems are such that they entail the absence of clear protocols that would render SSC the norm procedure, insufficient training of the staff that is lacking in confidence or technical ability to actually deliver SSC, and repeated logistical problems particularly in the context of cesarean section deliveries. The latter finding has robust association with the findings of Ali et al. (2021) in Bangladesh, where cesarean delivery had a strongly negative correlation with SSC practice [15]. This means that the technical and procedural complexities of surgical delivery pose implementation barriers that cut across cultural and national borders and form a cross-cultural, universal problem of obstetric practice to be overcome through some equipment, positioning maneuvers, and interdisciplinary coordination.

To address such complicated challenges, context-specific evidence-based implementation strategies in the Saudi setting are required. The quasi-experimental approach of Abd Rabou et al. (2020) in Egyptian healthcare institutions established the robust effectiveness of organized evidence-based practice interventions [10]. Their application of a comprehensive education program targeted towards integrative developmental care, which was centrally positioned with SSC, resulted in significant improvement of the competence, knowledge, and clinical performance of nurses following the intervention. This underlines the importance of targeted training together with strong managerial commitment and institutional support. The study was specifically able to achieve these gains even in poor rural settings, suggesting that well-designed interventions can yield large returns even where significant financial investment is not available. The key elements appeared to be the integrated design of the training, the element of practical skills training, and the express leadership endorsement by the hospital that signified institutional dedication to the practice change.

Based on this foundation, Hawsawi et al. (2023) proposed and demonstrated an even more sophisticated, culture-aware approach specifically designed to suit the Saudi context: the co-creation approach [11]. Knowing the continued underutilization of SSC even with the acknowledgment of its value, these researchers adopted an interactive development

process that engaged stakeholders actively in designing educational interventions. By engaging nurses, mothers, and most likely policymakers, they ensured that the resultant educational tools like pamphlets, presentations, and teaching videos were not only scientifically accurate but also culturally appropriate, linguistically accessible, and contextually relevant to the Saudi healthcare environment. This process of co-creation is a radical shift away from traditional top-down training paradigms since it develops ownership, buy-in, and relevance among the very same professionals and patients who will be adopting and being helped by them. The participatory nature of this development is the fact that it imparts materials addressing real-world concerns and realistic barriers identified by frontline practitioners, with the consequence of broadening exponentially the potential for adoption and effectiveness. This perspective understands that sustainable change in practice requires more than knowledge transfer; it requires engagement, ownership, and cultural alignment between intervention and implementation context.

E. The Role of Education and Training as a Catalytic Intervention

The underlying theme throughout the literature review is that education is the most catalytic and effective intervention to transform SSC practice. Comprehensive, well-designed programs of training are the path to empowering nurses from mere passive witnesses to confident, informed champions and professional facilitators of SSC. Education is the essential link between theoretical knowledge and clinical practice, enabling the healthcare professionals with not only the technical skill but also the philosophical understanding and motivational model necessary to prioritize SSC over competing clinical imperatives.

The systematic integrative review of literature conducted by Denge et al. (2023) comprehensively described the key components of effective educational interventions for the implementation of SSC in vulnerable preterm infants admitted to intensive care units [12]. Their synthesis of twelve relevant articles narrowed down three overarching themes that constitute the key components of effective educational interventions. For the first time, awareness of benefits transcends rudimentary instruction to motivating education that clearly sets out the tremendous short- and long-term advantages for infants and mothers. This aspect recognizes that practitioners are more likely to embrace and endorse practices whose value they fully understand and appreciate. Effective education doesn't just teach how to perform SSC but educates regarding the whys of why it is essential—outlining the physiological mechanisms by which SSC affects infant temperature, heart rate, and respiration; the psychological mechanisms by which attachment and bonding occur; and the epidemiological evidence of reduced morbidity and improved developmental outcome. Second, head-on addressing barriers recognizes the actual-world challenges that practitioners will experience and provides them with workable strategies to overcome such hindrances. Rather than brushing aside concerns about time constraints, workload requirements, or logistical issues, effective educational programs provide solid solutions: how to manage the environment to ensure confidentiality, ways of involving and educating parents as partners in the process, and ways of integrating SSC into existing work procedures without sacrificing other essential care tasks. This pragmatic approach evidences respect for the professional challenges of nurses and prepares them with problem-solving ability rather than merely assuming an idealized practice vision. Third, integration of policy and support systems recognizes education cannot be divorced from the institution. Sustainably transforming practice requires that there be paired with educational interventions the implementation of explicit unit policies, documentation systems, audit procedures, and public statements of management and leadership commitment. This systems approach ensures that practitioners perceive themselves to be supported and protected when implementing new practices and are aware that SSC is not a suggestion but a priority by an institution backed by adequate resources and administrative will.

The effectiveness of such educated, role-based interventions is nicely demonstrated in the quality improvement project by George et al. (2023) [13]. Their project created a unique Neonatal Assessment Nurse (NAN) role, specifically trained to provide evidence-based neonatal care at the time of birth with the main function of facilitating and advocating immediate SSC for stable newborns following both vaginal and cesarean births. The project employed an evidence-based plan-do-study-act framework to execute this higher-level role. Twenty-five registered nurses were competency tested and fully trained through pretest/posttest and skill validations. The results indicated striking improvements in numerous outcome measures: striking SSC initiation rate increases, increased duration of SSC sessions, and most importantly, a striking increase in exclusive breastfeeding hospital discharge rates. This project provides strong evidence that investment in specialist training and the explicit definition of clinical roles can lead to radical improvement in clinical outcomes without necessarily suggesting additional staff recruitment. Success with this project suggests that redesign of existing workflows and staff capability development through targeted education is able to deliver high-value paybacks in terms of patient outcomes and possibly fewer complications.

Finally, Qambar et al.'s (2023) research also highlights the significant connection between nursing education and clinical practice [16]. Their cross-sectional research confirmed that optimal SSC practices are more probable to occur when nurses possess adequate knowledge, have been furnished with clear instruction about SSC techniques and advantages, and hold positive beliefs about its value and effectiveness. This finding elegantly bridges the circle of practice, attitude, and education: the evidence-based practice-directed educational interventions create beliefs and knowledge, which in turn directly affect clinical behavior, ultimately leading to improved patient outcomes through more consistent and effective application of evidence-based practice. The research emphasizes again that professional growth and ongoing education are not marginalizing processes but intrinsic components of quality enhancement and implementation of evidence-based practice. In the case of SSC in Saudi Arabia, this would mean that sustained educational initiatives, particularly those grounded on co-creation principles offered by Hawsawi et al. (2023), are the most feasible path towards improving maternal and infant outcomes through the expansion of SSC utilization [11]. The consensus literature is that when health care organizations make an investment in balanced, culturally-sensitive education supported by favorable systems and policies, they lay the groundwork for evidence-based practices like SSC to take root and ultimately enhance maternal and neonatal health outcomes within the Saudi population and beyond.

III. CONCLUSION

This detailed literature review, synthesizing findings from 16 seminal studies, has definitively illustrated the good sense and urgent justification for the proposed pre-post quasi-experimental study. The evidence presented gives rise to several facts that are irrefutable. For one, skin-to-skin contact is an inextricable, evidence-based intervention with verifiable, multi-aspect benefits of maternal and neonatal health ranging from physiological stabilization and reduced hospitalization to enhanced breastfeeding success and enduring healthy mother-infant interaction. Second, the benefits of it and its advocacy by global health authorities despite, there are vast gaps between practice and evidence that are primarily caused by nurses' poor knowledge and skills, even when attitudes are positive in general. Third, in the Saudi Arabian context, while there are cultural influences, the largest implementation hurdles are system-based and educational—i.e., inadequate standardized processes, inconsistent training, and logistical considerations—rather than overall cultural denial.

The meta-analyzed literature all points inexorably in one direction: education and training programs that are organized and culturally adapted. Globally and regionally, there is evidence from research that these programs serve to improve substantially the nurses' knowledge, attitudes, and most importantly, their clinical practices regarding SSC. They are the intervention catalytic to bridge the knowing-doing gap.

Therefore, this review places the proposed study on solid grounds to evaluate the effectiveness of such an education program for Saudi obstetric department nurses. The findings of this research, as anticipated, will provide significant, contextualized evidence with regard to the effectiveness of a particular educational intervention. By providing evidence-based information, hands-on practice, and improved confidence, the study is anticipated to transfer SSC to a daily practice, not an isolated one. This, in turn, has the profound potential to increase the perinatal quality of care, increase exclusive breastfeeding rates, improve maternal-infant bonding, and reduce neonatal morbidity, and thus support vital national public health objectives in the Kingdom. Future research from here should focus on describing long-term sustainability of the learning gain, direct causal relationship between the intervention and specific neonatal outcome measures, and economic implications of such expansion of training programs on the Saudi healthcare system.

REFERENCES

[1] World Health Organization, *Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: the revised Baby-Friendly Hospital Initiative*. Geneva: WHO, 2018.

[2] J. L. Uchoa et al., “Influence of social determinants of health on skin to skin contact between mother and newborn,” *Rev. Bras. Enferm.*, vol. 74, p. e20200138, 2021.

[3] S. Agudelo et al., “Effect of skin-to-skin contact at birth on early neonatal hospitalization,” *Early Hum. Dev.*, vol. 144, p. 105020, 2020.

[4] A. E. Bigelow and M. Power, “Mother-infant skin-to-skin contact: short-and long-term effects for mothers and their children born full-term,” *Front. Psychol.*, vol. 11, p. 515068, 2020.

[5] E. Tyrala et al., "Post-partum skin-to-skin care and infant safety: results of a state-wide hospital survey," *Glob. Pediatr. Health*, vol. 8, p. 2333794X21989549, 2021.

[6] A. Hawsawi, R. Fernandez, M. Mackay, I. Alananzeh, and A. Al Mutair, "Knowledge, attitudes, practices, barriers and facilitators to skin-to-skin contact among Arabian mothers and health care providers in Arab countries: a systematic scoping review," *Int. J. Childbirth*, vol. 12, no. 4, pp. 170–190, 2022.

[7] A. Al Mutair et al., "Assessment of nurses' knowledge, attitude and implementation of skin-to-skin care within the perinatal setting in Saudi Arabia: Survey study," *Nurs. Open*, vol. 10, no. 4, pp. 2165–2171, 2023.

[8] W. M. Almutairi, "Survey of skin-to-skin contact with obstetrics and pediatric nurses," *Nurs. Rep.*, vol. 12, no. 1, pp. 13–21, 2022.

[9] N. Abdulghani, A. Cooklin, K. Edvardsson, and L. H. Amir, "Mothers perceptions and experiences of skin-to-skin contact after vaginal birth in Saudi Arabia: A cross-sectional study," *Women and Birth*, vol. 35, no. 1, pp. e60–e67, 2022.

[10] F. M. E. Abd Rabou, H. H. Abd Elmonem, and E. G. Naser, "Evidence Based Practice Intervention Effectiveness for Nurses on Integrative Developmental Care of Mothers and their Neonates in Rural Health Settings," *Egypt. J. Health Care*, vol. 11, no. 2, pp. 331–357, 2020.

[11] A. H. Hawsawi, R. Fernandez, M. Mackay, I. Alananzeh, and A. Al Mutair, "Co-creating an educational resource to promote the uptake of Skin-to-Skin Contact in Saudi Arabia," *Nurse Educ. Pract.*, vol. 72, p. 103783, 2023.

[12] T. Denge, N, E. Bam, W. Lubbe, and M. A. Rakhudu, "Key components of educational programme to implement skin to skin contact for preterm infants in the intensive care units. An integrative literature review," 2023.

[13] S. George, D. Showalter, and K. Graham, "Implementing the Role of Neonatal Assessment Nurse to Improve Skin-to-Skin Care and Breastfeeding Exclusivity," *Nurs. Women's Health*, vol. 27, no. 2, pp. 79–89, 2023.

[14] Y. Lau et al., "An analysis of the effects of intrapartum factors, neonatal characteristics, and skin-to-skin contact on early breastfeeding initiation," *Matern. Child Nutr.*, vol. 14, no. 1, p. e12492, 2018.

[15] N. B. Ali et al., "Prevalence and factors associated with skin-to-skin contact (SSC) practice: findings from a population-based cross-sectional survey in 10 selected districts of Bangladesh," *BMC Pregnancy Childbirth*, vol. 21, no. 1, pp. 1–13, 2021.

[16] B. Qammar, M. Tariq, Sonia, M. Ahmad, M. Taskeen, and M. Khalil, "Knowledge, Education, Beliefs And Practices Of Nurses For Skin," *J. Popul. Ther. Clin. Pharmacol.*, vol. 30, no. 18, pp. 2115–2122, 2023.