**“AN EXPERIMENTAL STUDY TO EVALUATE THE IMPACT OF A TARGETED EDUCATIONAL PROGRAMME ON SKILLED REGARDING CARE OF LOW BIRTH WEIGHT NEONATES AMONG NURSING STAFF WORKING IN SELECTED HOSPITAL AT BIJNOR, U.P.”**

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**ABSTRACT :**

Low birth weight neonates (LBWN) are infants born weighing less than 2,500 grams, irrespective of gestational age. This condition is a significant public health issue, particularly in low- and middle-income countries, where its prevalence is the highest. LBWN are at increased risk for various health complications, including respiratory distress, infections, feeding difficulties, and long-term developmental delays, all of which contribute to elevated neonatal morbidity and mortality rates globally. According to the World Health Organization (WHO), about 15-20% of all births worldwide are classified as low birth weight, which accounts for more than 20 million infants each year. LBWN are a major focus in neonatal care due to their increased vulnerability to early mortality, poor growth, and the potential for long-term disabilities. Low birth weight (LBW) neonates are highly vulnerable, requiring specialized care from nursing staff with specific skills. This study aimed to evaluate the impact of a targeted educational programme on improving the practical skills of nursing staff in caring for LBW neonates at a government & pandit chandrakant atray memorial multispeciality hospitals in Bijnor , Uttar Pradesh.

**Methodology** : A quasi-experimental pre-test post-test design was used, involving 300 nursing staff members selected through purposive sampling. Data were collected using a structured questionnaire to assess baseline practices before and after the intervention. Descriptive and inferential statistics, including paired t-tests, were used to analyze the data and evaluate the effectiveness of the programme.

**Results:** The study showed a significant improvement in practice after the intervention. The mean pre-test practice score was 13.46 (53.84%), which increased to 20.95 (83.80%) in the post-test, with a mean improvement of 7.49 (29.96%). The paired t-test value of 44.80 confirmed the statistical significance of the improvement. Educational level and years of experience were significantly associated with pre-test practice scores, with more experienced and higher-educated nurses demonstrating better initial practice levels.

**Conclusion:** The targeted educational programme effectively enhanced the practical skills of nursing staff in caring for LBW neonates. The study highlights the importance of ongoing, structured training to maintain and further improve neonatal care quality. Continuous education and refresher programmes are essential for ensuring that nurses remain competent in LBW neonate care. Further research is recommended to examine the long-term effects of such training on clinical outcomes and skill retention.

KEY WORDS: LBWN, Nursing staff, KMC.

**INTRODUCTION :**

Low birth weight neonates (LBWN) are defined as infants born weighing less than 2,500 grams, regardless of gestational age. This condition is a major public health concern, especially in low- and middle-income countries, where the prevalence is highest. LBWN are more vulnerable to a range of health complications, including respiratory distress, infections, feeding difficulties, and long-term developmental delays. These complications contribute significantly to neonatal morbidity and mortality rates globally. According to the World Health Organization (WHO), approximately 15-20% of all births worldwide are classified as low birth weight, equating to more than 20 million infants annually. LBWN remain a critical focus of neonatal care due to their heightened risk of early death, impaired growth, and long-term disability(1).

The causes of low birth weight are multifactorial and can be broadly classified into maternal, fetal, and environmental factors. Maternal factors such as malnutrition, infections, chronic diseases (e.g., hypertension, diabetes), and substance abuse (including tobacco and alcohol) play a crucial role in increasing the risk of delivering a low birth weight baby(2). In addition, poor maternal health, inadequate prenatal care, and high levels of stress have been linked to preterm birth, which is a leading cause of LBWN(3). Fetal factors include intrauterine growth restriction (IUGR) and congenital abnormalities, both of which can impair fetal development and result in LBWN (4). Environmental factors, including socioeconomic status, access to healthcare, and exposure to pollutants, further exacerbate the risk. (5)

The immediate postnatal period is critical for the survival and well-being of LBWN. These infants often experience difficulties in maintaining body temperature, breathing, and feeding due to underdeveloped organ systems(6). Respiratory distress syndrome, a common complication in LBWN, arises from immature lung development and insufficient surfactant production(7). Additionally, LBWN are more susceptible to neonatal infections, including sepsis, pneumonia, and meningitis, which are major causes of mortality in this group(8). Effective management strategies, including appropriate nutritional support, temperature regulation, and infection control, are essential to improving the outcomes of LBWN(9).

Nutritional support is particularly important in the care of LBWN. These infants require adequate caloric intake and nutrients for growth and development. Human milk, especially breast milk, is considered the best nutritional source for LBWN due to its immunological and nutritional properties(10). However, exclusive breastfeeding may not fully meet the high nutritional demands of LBWN, necessitating the use of human milk fortifiers to supplement essential nutrients like protein, calcium, and phosphorus(11). Studies have demonstrated that fortified breast milk significantly improves growth and development outcomes in LBWN(12). For LBWN who cannot be breastfed, formula specifically designed for premature or low birth weight infants is recommended(13).

In terms of long-term outcomes, LBWN are at increased risk for neurodevelopmental issues, cognitive impairments, and chronic health problems such as cardiovascular diseases and diabetes later in life(14). Early intervention programs, including physical therapy, developmental monitoring, and nutritional support, are critical for mitigating these risks and improving the quality of life for LBWN as they grow older(15). Additionally, research indicates that socioeconomic factors significantly influence the long-term outcomes of LBWN, underscoring the need for comprehensive care strategies that address both medical and social determinants of health.(16)

**NEED FOR THE STUDY**

Low birth weight (LBW) neonates, defined as infants weighing less than 2,500 grams at birth, are at an increased risk for complications such as infections, respiratory distress, and long-term developmental issues(17). These infants require specialized care, which demands a high level of skill and knowledge from healthcare providers, particularly nursing staff who are at the forefront of neonatal care. In many settings, including hospitals in rural areas such as Bijnor, U.P., the challenges in providing optimal care for LBW neonates are further compounded by a lack of resources and targeted training programs(18). It is essential to equip nursing staff with the skills required to provide comprehensive and evidence-based care for these vulnerable infants.

Research has shown that targeted educational programs can significantly improve nursing knowledge and skills, leading to better patient outcomes(19). Despite the growing body of evidence supporting the need for continuing education and skills development in neonatal care, there remains a gap in the training provided to nursing staff, especially in lower-resourced settings. This gap underscores the necessity for targeted educational interventions aimed at enhancing the competencies of nursing staff in caring for LBW neonates. Such interventions can improve the quality of neonatal care, reduce the incidence of complications, and ultimately lower neonatal mortality rates(20).

The setting for this study, Bijnor, U.P., represents a region where healthcare resources and specialized training opportunities may be limited. Nursing staff in such areas may lack access to structured educational programs designed to update their skills in managing the unique needs of LBW neonates. Addressing this gap through a targeted educational program is critical, as studies have demonstrated that improving healthcare providers' skills in neonatal care can lead to improved survival rates and reduced morbidity in LBW infants(21).

Furthermore, the rapidly evolving nature of neonatal care, with advancements in treatment protocols and care strategies, necessitates ongoing education for healthcare professionals. Without continuous professional development, nursing staff may fall behind in adopting best practices, which can negatively impact the care provided to LBW neonates(22). This study aims to evaluate the effectiveness of a targeted educational program designed to enhance the skills of nursing staff in caring for LBW neonates in a selected hospital in Bijnor, U.P. By focusing on skill development through structured training, the study seeks to improve the overall quality of care provided to LBW infants and contribute to a reduction in neonatal mortality and morbidity.

Thus, this study is crucial in filling the knowledge and skill gaps in LBW neonatal care, particularly in under-resourced settings, where targeted educational interventions can make a significant difference in patient outcomes(23).

**STATEMENT OF THE PROBLEM:**

“AN EXPERIMENTAL STUDY TO EVALUATE THE IMPACT OF A TARGETED EDUCATIONAL PROGRAMME ON SKILLED REGARDING CARE OF LOW BIRTH WEIGHT NEONATES AMONG NURSING STAFF WORKING IN SELECTED HOSPITAL AT BIJNOR, U.P.”

**OBJECTIVES OF THE STUDY:**

1. To assess the existing practice regarding care of low birth weight neonates among nursing staff of selected hospital.
2. To findout the effectiveness of targeted educational programme on practice regarding care of low birth weight neonates among nursing staff of selected hospital
3. To determine the association between practice score regarding care of low birth weight neonates among nursing staff with their selected demographic variables.

**HYPOTHESES**:

H1: There is a significant different between pre and post-test practice score on care of low birth weight neonates among nursing staff of selected hospital.

H2 - There is a significant association between pre-test practice score with their selected socio demographic variables.

**OPERATIONAL DEFINITIONS:**

**Evaluate :** To assess the effectiveness of a targeted educational programme in improving nursing staff skills for caring for low birth weight neonates through systematic measurement and analysis.

**Targeted Educational Programme :** A focused training initiative designed to address specific knowledge or skill gaps in neonatal care, aimed at enhancing nursing staff's competencies in managing low birth weight neonates.

**Skill :** The practical ability of nursing staff to effectively perform tasks related to the care of low birth weight neonates, developed through training and hands-on experience.

**Low Birth Weight Neonates (LBWN) :** Infants born weighing less than 2,500 grams, at higher risk for health complications, requiring specialized care from trained healthcare providers.

**Nursing Staff :** Healthcare professionals, including nurses and midwives, responsible for providing direct patient care, particularly focused on managing and caring for low birth weight neonates.

**Selected Hospital :** The specific hospital chosen for the study in Bijnor, U.P., where the targeted educational programme is implemented and evaluated among the nursing staff.

**REVIEW OF LITERATURE** :

Mishra U et al. (2024) conducted a comprehensive review of the literature, utilizing the PubMed and Embase databases with keywords including "thermoregulation," "incubator humidity," "skin care," "infant, extremely low birth weight," and "ultra-low birth weight infants." The review found evidence supporting thermoregulation, incubator humidity, and skincare practices for preterm infants weighing less than 1500 grams, but identified a lack of specific research focused on ultra-low birth weight (ULBW) infants. Most studies had small sample sizes and did not conduct subgroup analyses specifically targeting ULBW infants. Consequently, current care recommendations for ULBW infants are based primarily on research involving very low and extremely low birth weight infants. This narrative review addresses the unique challenges in managing thermoregulation, incubator humidity, and skin care for ULBW infants and highlights significant research gaps. The authors suggest further research and potential advancements to inform and improve care practices aimed at better health outcomes for this particularly vulnerable group of neonates.(24)

Kassaw MW et al. (2023) conducted a study to assess health professional-assisted Kangaroo Mother Care (KMC) practices and related factors among Ethiopian mothers who gave birth in health facilities. Using data from the 2016 Ethiopian Demographic and Health Survey (EDHS), which employed a stratified two-stage sampling method, the study analyzed a sample of 2,960 participants. Logistic regression was applied to identify factors associated with KMC practice. The findings revealed that 62.1% of mothers practiced KMC in health facilities. Multivariable logistic regression indicated that women from the poorest (AOR 0.60, 95% CI 0.43–0.81) and poorer (AOR 0.62, 95% CI 0.46–0.86) socio-economic groups were less likely to practice KMC. The study concluded that the coverage of health professional-assisted KMC was lower than expected, particularly among mothers from lower socio-economic backgrounds. The authors recommended further research to investigate the barriers to KMC practice in these groups, despite access to health facilities.(25)

Tripathi G et al. (2016) conducted an observational study in the Rewa division of Madhya Pradesh to evaluate the impact of establishing a Sick Newborn Care Unit (SNCU) on newborn care practices and its contribution to improving neonatal survival. The study was conducted over two months in six high-priority districts, involving 112 mothers of newborns, 6 paediatricians, 4 staff nurses, and 2 hospital superintendents. Data collection included both qualitative and quantitative methods, using personal interviews with staff and mothers through pre-formed questionnaires. The results showed that the majority of staff were satisfied with the SNCU infrastructure and services, and most mothers were pleased with the care and follow-up services provided. Furthermore, many beneficiaries reported increased motivation and improved knowledge about newborn care. The study concluded that the SNCU had a positive impact on increasing knowledge and awareness of neonatal care, contributing to a reduction in neonatal mortality. The authors recommended regular reviews of such facilities as a vital step towards further reducing neonatal mortality in the country.(26)

**METHODOLOGY**

The experimental study aimed to evaluate the impact of a targeted educational programme on the practices of nursing staff regarding the care of low birth weight (LBW) neonates at a government & pandit chandrakant atray memorial multispeciality hospitals in Bijnor, U.P. Utilizing a quasi-experimental pre-test post-test design, the study involved 300 nursing staff members, chosen through purposive sampling. Data collection was conducted using a structured tool, with Part A collecting socio-demographic data and Part B assessing practical skills in LBW neonate care. The educational programme focused on key practical aspects such as feeding techniques, infection control, and temperature management. Descriptive and inferential statistics, including frequency, percentage, mean, standard deviation, paired t-test, and Chi-square test, were used to evaluate and compare pre- and post-intervention practice scores. Ethical protocols were adhered to, ensuring participant anonymity and confidentiality. The study's findings aim to enhance practical nursing skills in caring for LBW neonates and improve targeted educational approaches in healthcare settings.

**RESULT AND ANALYSIS :**

The data was presented under the following sections:

**Section I** : Distribution of sample characteristics according to demographic variables.

**Section II** : Analysis of practice regarding care of low birth weight neonates among nursing staff

**Section III** : Analysis of association of pretest level of practice regarding care of low birth weight neonates with selected bio socio-demographic variables among nursing staff.

**TABLE–1: CLASSIFICATION OF STUDY PARTICIPANTS BY SOCIO-DEMOGRAPHIC VARIABLES. (N=300)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SL. NO** | **SOCIO DEMOGRAPHIC VARIABLES** | **CATEGORIES** | **FREQUENCY** | **PERCENTAGE OF FREQUENCY** |
| 1 | Age  | Below 25 years | 72 | 24.00 |
| 26-35 years | 134 | 44.66 |
| 36-45 years | 56 | 18.66 |
| Over 46 years | 38 | 12.66 |
| 2 | Gender  | Male | 124 | 41.33 |
| Female | 176 | 58.66 |
| 3 | Education qualification | Diploma in Nursing | 196 | 65.33 |
| B.Sc./PB B.Sc. Nursing | 98 | 32.66 |
| MSc Nursing | 6 | 02.00 |
| 4 | Years of Experience  | Less than 1 year | 77 | 25.66 |
| 1-5 years | 124 | 41.33 |
| 6-10 years | 76 | 25.33 |
| More than 10 years | 23 | 07.66 |
| 5 | Monthly Income | >10000/- | 15 | 05.00 |
| 10001-20000/- | 170 | 56.66 |
| 20001-30000/- | 65 | 21.66 |
| >30000/- | 50 | 16.66 |
| 6 | Type of Employment | Permanent | 195 | 65.00 |
| Contractual | 42 | 14.00 |
| Part-time | 63 | 21.00 |
| 7 | Position in Hospital | Staff nurse | 204 | 68.00 |
| Senior Nurse | 69 | 23.00 |
| Nursing Supervisor | 21 | 07.00 |
| Nurse educator | 6 | 02.00 |
| 8 | Previous knowledge in neonatal care | Yes | 185 | 61.66 |
| No | 115 | 38.33 |
| 9 | Shift typically worked | Morning | 85 | 28.33 |
| Evening | 129 | 43.00 |
| Night | 59 | 19.66 |
| Rotational | 27 | 09.00 |
| 10 | Source of Information | Periodical training in hospital | 114 | 38.00 |
| Internet | 76 | 25.33 |
| Book & Magazines | 38 | 12.66 |
| Peer group & Seniors | 72 | 24.00 |

The socio-demographic profile of the 300 study participants reveals that the majority (44.66%) are aged between 26-35 years, with a significant proportion being female (58.66%), indicating a predominance of young female professionals in the nursing workforce. In terms of educational qualifications, a large majority (65.33%) possess a Diploma in Nursing, while only a small percentage (2%) have attained an MSc in Nursing, highlighting a potential area for educational advancement. Regarding professional experience, 41.33% of participants have 1-5 years of experience, and 25.66% have less than one year, reflecting a relatively junior workforce. In terms of income, over half (56.66%) earn between ₹10,001 and ₹20,000 monthly, with 65% holding permanent employment positions. Most participants (68%) work as staff nurses, and 61.66% reported having previous knowledge of neonatal care. The majority work evening shifts (43%), and hospital training serves as the primary source of information on neonatal care for 38% of the participants, underlining the importance of ongoing institutional education.

**TABLE–2: COMPARISON OF DISTRIBUTION OF NURSING STAFF BY THEIR PRE-TEST AND POST-TEST LEVEL OF PRACTICE REGARDING CARE OF LOW BIRTH WEIGHT NEONATES. (N=300)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Level of practice**  | **Practice scores** | **Frequency** | **Percentage of frequency** |
| **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Inadequate**  | 0-12 | **99** | **0** | **33.00%** | 0.00% |
| **Moderate**  | 13-18 | **199** | **30** | **66.33%** | 10.00% |
| **Adequate**  | 19-25 | **2** | **270** | **0.67%** | 90.00% |
| **TOTAL** | 300 | **100.00%** | 300 | **100.00%** |

The table compares the distribution of nursing staff by their pre-test and post-test practice levels regarding the care of low birth weight neonates. In the pre-test, a significant proportion of nursing staff (33%) demonstrated inadequate practice, with scores ranging from 0-12. The majority (66.33%) had moderate practice levels (scores of 13-18), and only 0.67% showed adequate practice (scores of 19-25). However, after the targeted educational intervention, there was a marked improvement in post-test scores. None of the participants scored in the inadequate range, only 10% had moderate practice levels, and an overwhelming 90% demonstrated adequate practice. This suggests that the educational programme was highly effective in significantly enhancing the nursing staff’s practical skills in caring for low birth weight neonates.

**TABLE-3: MEAN, MEAN%, SD AND CV OF OVERALL PRE-TEST, POST-TEST AND ENHANCEMENT PRACTICE SCORES AMONG NURSING STAFF. (N=300)**.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **No. of Items** | **Minimum** | **Maximum** | **Range** | **Mean** | **Mean%** | **SD** | **co-efficient of variance** | **Paired t Test Value** |
| **PRE-TEST** | 25 | 7 | 20 | 13 | 13.46 | 53.84% | 2.26 | 16.81% | **44.80****(S)****df=299** |
| **POST-TEST** | 25 | 16 | 24 | 8 | 20.95 | 83.80% | 1.73 | 8.26% |
| **ENHANCEMENT** | 25 | 1 | 14 | 13 | 7.49 | 29.96% | 2.90 | 38.66% |

The table presents the comparison of pre-test, post-test, and enhancement practice scores of nursing staff regarding the care of low birth weight neonates. In the pre-test, the mean score was 13.46, which is 53.84% of the total possible score, with a standard deviation (SD) of 2.26, and a co-efficient of variance (CV) of 16.81%, indicating moderate variability in practice levels. The post-test mean increased significantly to 20.95 (83.80%), with a lower SD of 1.73 and a CV of 8.26%, reflecting more consistent post-intervention scores. The mean enhancement in practice was 7.49 (29.96%), with a SD of 2.90 and a CV of 38.66%, suggesting a substantial improvement in nursing staff practices. The paired t-test value of 44.80 (p < 0.05) confirms that the difference between pre- and post-test scores was statistically significant, demonstrating the effectiveness of the targeted educational programme in improving practical skills for low birth weight neonate care.

H1: There is a significant different between pre and post-test practice score on care of low birth weight neonates among nursing staff of selected hospital.

Based on Table 3, the pre-test mean practice score was 13.46 (53.84%), while the post-test mean practice score increased to 20.95 (83.80%). The enhancement in the mean practice score was 7.49 points (29.96%). The standard deviation (SD) decreased from 2.26 in the pre-test to 1.73 in the post-test, indicating a more consistent level of practice among the participants after the educational intervention. Additionally, the coefficient of variation (CV) decreased significantly from 16.81% in the pre-test to 8.26% in the post-test, further reflecting a reduction in variability and an overall improvement in practice uniformity.

The paired t-test value calculated for the difference between pre-test and post-test practice scores was 44.80, which is statistically significant with a p-value of less than 0.00001. Given that this p-value is well below the significance level of 0.05, the null hypothesis (H0) is rejected.

**TABLE-4: ASSOCIATION BETWEEN PRE-TEST LEVEL OF PRACTICE REGARDING CARE OF LOW BIRTH WEIGHT NEONATES AMONG HYPERTENSIVE NURSING STAFF AND THEIR SELECTED SOCIO-DEMOGRAPHIC VARIABLES (N=300)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Socio demographic variables** | **Categories** | **Pre-test level of practice** | **Calculated chi square value** | **df** | **P value** |
| **< Median** | **≥ Median** |
| **1** | **Age** | **Under 25 years** | 36 | 36 | 1.22**(NS)** | 3 | 0.747 |
| **25-35 years** | 68 | 66 |
| **36-45 years** | 24 | 32 |
| **Over 45 years** | 20 | 18 |
| **2** | **Gender** | **Male** | 64 | 64 | 0.04**(NS)** | 1 | 0.842 |
| **Female** | 84 | 88 |
| **3** | **Educational Level** | **Diploma in Nursing** | 101 | 97 | 6.07**(S)** | 2 | 0.048 |
| **B.Sc. / PB B.Sc. Nursing** | 47 | 49 |
| **M.Sc. Nursing** | 0 | 6 |
| **4** | **Years of Experience in Nursing** | **Less than 1 year** | 41 | 36 | 11.36**(S)** | 3 | 0.009 |
| **1-5 years** | 68 | 57 |
| **6-10 years** | 35 | 40 |
| **More than 10 years** | 4 | 19 |
| **5** | **Monthly income(Per month)** | **> 10000/-** | 6 | 9 | 0.67**(NS)** | 3 | 0.881 |
| **10001-20000/-** | 87 | 85 |
| **200001-30000/-** | 31 | 32 |
| **>30000/-** | 24 | 26 |
| **6** | **Type of Employment**  | **Permanent/Regular** | 93 | 102 | 0.76**(NS)** | 2 | 0.684 |
| **Contractual** | 21 | 21 |
| **Part-time** | 34 | 29 |
| **7** | **Position in Hospital** | **Staff Nurse** | 103 | 100 | 2.56**(NS)** | 3 | 0.465 |
| **Senior Nurse** | 30 | 39 |
| **Nursing Supervisor** | 13 | 9 |
| **Nurse Educator** | 2 | 4 |
| **8** | **Previous Training in Neonatal Care** | **Yes** | 92 | 93 | 0.03**(NS)** | 1 | 0.862 |
| **No** | 56 | 59 |
| **9** | **Shifts Typically Worked** | **Morning** | 47 | 38 | 2.25**(NS)** | 3 | 0.523 |
| **Evening** | 60 | 70 |
| **Night** | 27 | 32 |
| **Rotational** | 14 | 12 |
| **10** | **Source of information** | **Periodical training in hospital** | 56 | 56 | 3.97**(NS)** | 3 | 0.264 |
| **Internet** | 34 | 43 |
| **Books and magazines** | 24 | 14 |
| **Peer group and seniors**  | 34 | 39 |

The table-4 presents the association between pre-test practice levels of hypertensive nursing staff regarding the care of low birth weight neonates and selected socio-demographic variables. The analysis reveals that **educational level** and **years of experience** are significantly associated with pre-test practice levels. Nurses with higher education (M.Sc. Nursing) had significantly better practice scores (p = 0.048), and those with more than 10 years of experience also demonstrated significantly higher practice levels (p = 0.009). However, other socio-demographic factors such as age, gender, monthly income, type of employment, position in the hospital, previous neonatal care training, shift work, and source of information did not show statistically significant associations with pre-test practice levels, as indicated by their non-significant p-values (p > 0.05). These findings suggest that higher education and longer nursing experience play a critical role in improving nursing practice for the care of low birth weight neonates.

**NURSING IMPLICATION**

The findings of the study will help the investigator in the following ways:

* Developing positive practice regarding care of low birth weight neonates. The finding of the study can be used in the following areas of nursing profession.

**Nursing Practice:** The study underscores the importance of ongoing professional development to enhance the skills of nursing staff in the care of low birth weight (LBW) neonates. Improved training on feeding, infection control, and temperature management ensures better outcomes for vulnerable neonates. Nursing staff should implement evidence-based practices learned from the educational programme, contributing to a higher standard of neonatal care. Periodic assessments of clinical skills can also help maintain competence in providing specialized care to LBW infants.

**Nursing Administration:** Administrators play a crucial role in facilitating continuous education for their nursing teams. This study highlights the need for hospital management to support targeted educational programmes focused on LBW neonate care. Administrators should allocate resources for training sessions, establish policies for regular skill assessments, and encourage nurses to participate in such programmes. Ensuring the availability of necessary equipment and fostering a culture of ongoing learning is essential for improving neonatal care outcomes.

**Nursing Education:** The findings of this study emphasize the need to incorporate specialized neonatal care, particularly for LBW infants, into nursing curricula. Educational institutions should design and deliver targeted modules that focus on critical areas such as neonatal feeding, infection prevention, and temperature regulation. In-service training for practicing nurses should also be prioritized, with a focus on developing both theoretical knowledge and practical skills in LBW neonate care.

**Nursing Research:** This study opens avenues for further research on the long-term impacts of targeted educational programmes on nursing practices related to neonatal care. Future research can explore the retention of skills gained through training, the impact on patient outcomes, and the development of new interventions that can be incorporated into nursing education. Additionally, comparative studies on the effectiveness of various training methods can help refine educational strategies for enhancing neonatal care skills in different settings.

**Conclusion** : The study concluded that the targeted educational programme significantly improved the skills of nursing staff in caring for low birth weight (LBW) neonates at a selected hospital in Bijnor, U.P. Pre-test results indicated that the majority of nursing staff had inadequate or moderate practice levels, with only 0.67% demonstrating adequate skills. However, after the educational intervention, 90% of participants achieved adequate practice, demonstrating the programme's effectiveness in enhancing practical competencies. Factors such as higher education and years of experience were significantly associated with better pre-test practice levels, underscoring the importance of continuous learning. The findings highlight the need for ongoing, structured training to improve the care provided to LBW neonates, who are at increased risk of complications. Overall, the study demonstrates that investing in targeted educational programmes for nursing staff can lead to substantial improvements in neonatal care practices, ensuring better health outcomes for vulnerable infants.

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