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Acceptable Method Of Care And Illegal Mother Care On Neonatal Vital Signs And Arterial Oxygen Saturation Rates In Federal Medical Centre [FMC] Owerri Imo State.

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Abstract
*Acceptable method of care and illegal mother on Neonatal Vital Signs and Arterial Oxygen Saturation Rates in federal medical centre Owerri Imo state was a comparative study carried out to ascertain the effects of Acceptable method of care and illegal mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. The **objectives** of the study are; to determine the rates of Vital Signs (Temperature, Heart rate and Respiration) among neonates of illegal Mother Care and acceptable Method of care in Special Care Baby Unit(SCBU) of federal medical centre Owerri Imo state. ii. to assess the levels of arterial oxygen saturation rates among neonates of illegal Mother Care and acceptable Method of Care in SCBU, of FMC Owerri. iii. to determine if there is a statistically significant difference in the effect of illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. **Scope of the Study**was neonates weighing less than 2500grammes (2.5kilogram) admitted into the Special Care Baby Unit of the FMC Owerri. Imo state, Nigeria. From January to June 2021.**Significance of the Study;** The results of this study will help create awareness on illegal mother care as an alternative to acceptable care in the management of newborn infants especially premature or low birth weight neonates. The researcher used quasi experimental design for the study. The target population used for the study was sixty(60)neonatesfrom the Special Care Baby Unit (SCBU) of FMC Owerri. The instrument used for the study was a checklist, a thermometer, a neonatal stethoscope, a watch and a pulse oximeter. The data gathered were presented in tables and analysed using descriptive statistic, regression analysis and paired sample test. From the data analysed, the following study findings were observed: The illegal use Mother Care has positive effect on Neonatal Vital Signs and Arterial Oxygen Saturation Rates; the use of accepted method of care has negative impact on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. There is statistically significant difference in the effect of illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. This suggests that the stability of these vital signs through the illegal Mother Care can be used as a complementary and alternative in the treatment of neonates, particularly those with low birth weight, which can decrease the duration of hospitalization, and reduce the use of the incubator which is anexpensive equipment. Also, acceptable Method of Care should be taken as one of the routine cares of premature neonates to positively influence their health.*

***Keywords**: Arterial Oxygen Saturation Rates, acceptable methods, illegalMother Care, and neonatal Vital signs, thermometer, neonatal stethoscope, pulse oximeter.*

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I. Background to the study.

The illegal mother care technique was formulated in 1978, by the neonatologists Edgar Rey Sanabria and Héctor Martinez Gómez, who were specialists at the Child Medical Institute of Bogotá, Colombia. Worried about the abundance quantities of preterm infants (PTNBs) that should have been kept together in a similar hatchery, along these lines prompting high rates of bleakness and neonatal mortality, they saw that the illegal mother care technique is conceived untimely and stays in the mother's pocket until it finishes the growth time

frame. They additionally saw how the Colombian Indian's mothers conveyed their infants and chose to adjust this for neonatal consideration (Almeida et al., 2017).

When there was no incubator, they began to place preterm new births in skin-to-skin contact with the mother. In Brazil, illegal mother care started in Santosand later in Recife. Accordingly, the Ministry of Health choose to give standard rules for this strategy. Accordingly, in the Brazilian model, the technique is definitely not a substitute for the incubator, yet another method of neonatal consideration accessible in nurseries and Neonatal Intensive Care Units, (NICUs) (Almeida & Almeida, 2017).

The illegal mother care technique (illegal mother care [IMC]) is skin‑to‑skin contact among mother and baby and a strategy for care for all infants, particularly the preterm or underweight, and makes better conditions for mother and infant contrasted with incubator caring strategy (Thakur et al., 2020). As indicated by the Norms for Humanized Care for Low Weight New-borns, from the Ministry of Health, IMC is a type of neonatal consideration that comprises of early skin-to-skin contact between the mother and her low-weight PTNB, which permits progressively huge interest by the guardians in focusing on their infant.

This method is based on three basic principles, including skin‑to‑skin contact, exclusive breastfeeding, and support to the mother‑infant dyad. To establish the skin‑to‑skin contact, the newborn is placed in front of the mother's chest and is guided by a cloth bag, wrapped around a newborn and the mother. This could be done from the beginning of birth or anytime during the night and day, but its short and intermittent periods are also useful (Helaly, et al., 2020).

IllegalMother Care begins within the first 28 days of life – the neonatal period –are the most vulnerable time for a child's survival. The level of low birth weight in developing countries (16.5%) is more than double the level in developed regions (7 %). Low birth weight (LBW) is considered as the single most important predictor of infant mortality, especially of deaths within the first months of life. A baby's low weight at birth is either the result of preterm birth (before 37 weeks of gestation) or restricted feotal (intrauterine) growth (Parsa et al., 2018).

Preterm birth (born before 37 weeks of pregnancy) face many challenges to maintain their physiological parameters in extra uterine life which may lead to many complications (Dehghani et al., 2015).

Thus, preterm infants need supplementary energy for the maintenance of stable physiological parameters, warmth, feeding, and to be infection free in their postnatal life. The insufficiency of thermal security is still a large-scale threat for new born survival in developing countries. illegal Mother Care (IMC) is one of cost-effective intervention which is very easy but more powerful method to reduce many complications mainly in low birth weight babies. IMC is when infants are carried or held to their caretaker's chest. This can occur moments after birth for maximal effect and can continue to be implemented through the first years of life.

IMC is an alternative methods of replacement of incubator on the care of Low Birth Weight babies with some effective ways to meet the basic need of the baby such as baby's skin contact to the mother skin, where the mother's body as a thermo regulator for the baby, so that the baby gets warmth (avoiding the baby from hypothermia) if the mother's body temperature decrease, then the baby's body temperature also decreases (Mekonnen et al., 2019). IMC makes breastfeeding easier, protection from infection, stimulation, safety and affection. Illegal method is a continuous method of offering early by touching the skin to the skin between mother and LBW baby in a position that looks abnormal/illegal (Ranjan& Malik, 2019).

The most critical periods in the health of women are pregnancy, birth, and the postnatal period. These periods also greatly affect the babies' health. Women worldwide follow different traditional practices and beliefs at different rates, depending on surrounding cultural and social structures. Although some health systems currently provide expectant mothers with modern healthcare before, during, and after birth, traditional midwives (both internationally and domestically) are often involved both during and after birth due to habit or regional customs, performing various traditional practices to facilitate birth (Dehghani et al., 2015).

Below are some acceptable methods of child care practiced in Nigeria apart from incubator care and this methods are based on or in accordance with what is generally done or believed in Nigeria (Nethra&Rekha, 2018): .

Massaging of the new born with oil before bath, believing that baby will be relaxed by giving massage and also that it will help in keeping the skin healthy; Applying oil on baby's anterior fontanelle so that it will fuse soon; Preference for a specific person like her mother, grandmother to give bath to the new born because of lack of experience and confidence; Exposing the baby to smoke after bath to prevent the baby from evil eyes.

Having a separate room for the mother and her baby so that she could have her privacy for feeding practices.

Having the practice of visitors washing hands and legs before entering the room as it was a custom to be followed in their home, Discarding the colostrum believing it is harmful to the new born as it is stored in breasts since months; Exposing the baby to sunlight when the baby's skin turns yellow so that sunlight will dissolve yellow colour, while some believed giving sugar water to the baby during jaundice as treatment, Practiced pouring oil into the ears of the newborn because they believe ears will get closed otherwise, Practice

of tying black thread and bangles to the new-born's hand or leg to prevent evil eye and they believe black thread will absorb negative energy

Many studies have shown that skin‑to‑skin contact through IMC leads to breathing regulation and stabilizing, improvement in respiratory distress, increased and/or heart rate (HR) regulation, and increased arterial oxygen saturation rate (Verma&Verma, 2013). In addition, the mother's supportive and caring behaviours become further during this procedure; her lactation enhances, and her conditions and discomforts will relieve, and her postpartum haemorrhage will be prevented (Boundy et al., 2016). Furthermore, the newborn feeding is performed better in this method; the newborn grows faster (Dehghani et al., 2015). Usually, separating the newborn from the mother and incubator care will cause the secretion of stress hormones, intense crying and despair in newborn, which are harmful to the new-born's health and can decrease the body temperature and irregularity in heartbeat and breathing (Ranjan& Malik, 2019). In sum, this method has the advantages of increasing the mother-child bond; avoiding long periods without sensory stimulation by reducing the mother-child separation time; stimulating breastfeeding by the mother, which favours greater frequency, earlier implementation and longer duration; improving the thermal control, due to greater bed rotation; reducing the number of newborns in intermediate care units; reducing the hospital infection rate; and allowing shorter stays in hospitals. The illegal mother care can, therefore, be effective in supplying the new-born's needs and stabilizing the new-born's physiological states and survival of the preterm neonate (Mekonnen et al., 2019).

In the neonatal emergency unit, Vital signs are very essential (pulse, respiratory rate, and oxygen immersion are Vital Signs that are consistently checked in babies), while circulatory strain is regularly observed constantly following birth, or during basic disease. In spite of the fact that adjustments of Vital Signs can reflect baby physiology or circadian rhythms, determined deviations in outright qualities or complex changes in changeability can demonstrate intense or ongoing pathology. Late examinations show that investigation of constant Vital Signs patterns can foresee sepsis, necrotizing enterocolitis, cerebrum injury, bronchopulmonary dysplasia, cardiorespiratory decompensation, and mortality (Dehghani et al., 2015).

The survival of every child depend on the oxygen supply. Blood vessel oxygen immersion (SaO2) is a proportion of heamoglobin oxygenation in the blood vessel compartment of the circulatory framework. It's anything but a proportion of the complete oxygen content in the blood vessel on the grounds that a little part of oxygen (around 2%) is disintegrated in the plasma. SaO2 is characterized as the proportion of the convergence of oxygenated heamoglobin [HbO2] and the grouping of absolute heamoglobin, [HbT] = [HbO2] + [HHb]: SaO2=HbO2/HbT×100% (Ranjan and Malik, 2019).

The worth of SaO2 in wellbeing is something similar all through the entire blood vessel framework. It is straightforwardly identified with the oxygen supply to organs, and ordinary qualities lie somewhere in the range of 95% and 100%.

Literatures reviewed have shown the benefit of illegal mother care, which may contribute towards reducing the mortality rate among low-weight PTNBs; provide calmer and longer sleep; act as an analgesic through the release of endorphins; improve physiological functions in a general manner; and have an effect of sensory stimulation and increased mother-child interaction, including among normal term newborns (Astuti&Novita, 2020). The need for adequate training for the professionals involved is emphasized, as is the need for mothers to be well informed regarding the benefits brought through illegal mother care as compared to other conventional methods of care.

In this light, the purpose of the present study was to make a comparative study of the effects of illegal Mother Care and acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates in FMC, Owerri, Imo state. Nigeria.

II. Statement of the Problem;

Several studies have been carried out to evaluate the possible changes in Neonatal Vital Signs and Arterial Oxygen Saturation Rates among low-weight newborns following the application of illegal [abnormal] Mother Care. Some of these studies indicated no significant differences in physiological measures of newborns under IMC (Helaly, et al., 2020). Inspite of the numerous search for a safer mother care to babies, yet premature/low birth weight neonates die from complications of hypothermia, either on their way from their places of birth to the referral hospital, or as a result of inadequate incubators/ radiant warmers. The researcher discovered that no literature has be done on a comparative study of the illegal / abnormal Mother Care and that of the generally accepted Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates at FMC, Owerri, Imo state, Nigeria. It was against this background that the researcher carried out this study on "effects of illegal Mother Care and acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates in FMC, Owerri, Imo state, Nigeria.

III. Methodology

3.1Research Design The study design was a quasi- experiment design, where vital signs and arterial blood oxygen saturation rates were taken both from neonates on Illegal mother care and conventional method of care.

3.2 The Study Setting The study was carried out in the federal medical centre Owerri, Imo state. The In-Born section comprises of the Neonatal Intensive Care Unit (NICU), the special care baby unit and the transitory unit. These areas take care of babies delivered within the hospital.

The Out- Born section takes charge of the babies who came from outside the hospital or are born before arrival.

3.3 Target Population

All the babies admitted into the SCBU within the period of the study (January – June 2021), who fit into the criteria for the study totalling sixty (60) made up the population and sample size.. **Inclusion criteria**

Infant with birth weight less than 2500 grams, born before 37^{th} completed weeks of gestation, Neonates stable enough to leave the incubator and be with the mother, neonate has not undergone surgery and babies permitted by the Neonatologists to leave the incubators.

3.3.2 Exclusion criteria

Neonates who are critically ill to participate, neonates on ventilators, neonates weighing more than 2500grams and are born after 37^{th} completed weeks and those whose mothers were sick and cannot care for their babies, and those whose mothers decline IMC and did not give consent.

3.4 Determination of Sample Size

This study used all the target population sample size of 60 (sixty) neonates who were hospitalized in Neonatal Intensive Care Unit (NICU) for the study period.

3.5 Research Instruments

The research instrument was a check list, a Thermometer, a stethoscope and a pulse oximeter.

The thermometer was used to measure the temperature (the degree of hotness or coldness of the neonates both at the acceptable care method and the abnormal/illegal Mother Care method.

The stethoscope was used to measure the respiratory rate and the heart rates of each neonate at the acceptable care method and the illegal/abnormal Mother Care method.

The pulse oximeter was used to estimate the amount of oxygen in the blood of the neonates at the acceptable care method and the illegal/abnormal Mother Care method.

3.6.1 Validity of the instrument.

Content validity was carried out on the research instrument to ascertain the extent to which items in the check list adequately measure or represent the research objectives. After the research check list was developed by the researcher, it was first given to the researcher's supervisor to validate. The corrections, opinions, suggestions and recommendations made by the Supervisor were used to produce the final instrument. The thermometer used has absolute Zero and gives same reading when used over and over. The Pulse Oximeter, Stethoscope, and the second hand watch were regulated to be used in the clinical sector and their readings are consistent with repeated used.

3.6.2 Reliability of the instrument

Reliability concerns the extent to which a measurement of a phenomenon provides stable and consistent result. Reliability is also concerned with repeatability. For example, a scale or test is said to be reliable if repeat measurement made by it under constant conditions will give the same result (Taherdoost, 2016).For this study, reliability test was carried out on the research instrument in order to ascertain the degree to which the instrument yields consistent results. The internal consistency reliability test technique was adopted for the study. The consistency of the score of 10 sample data from the research check list was examined using a statistical procedure - Cronbach's Alpha statistics. If the value obtained in the reliability test is greater than 0.8, then the instrument is said to be good.

3.7 Method ofData Collection.

Data was collected by the researcher and some researchassistants using a checklist. A clinical thermometer was used to monitor the temperature by inserting it in the axilla for 1 to 2 minutes before it was read. A second hand wrist watch was used to count the respiratory rates,while and Neonatal Stethoscope was used to auscultate the heart sound and the Pulse Oximeter was placed in the thumb of the neonates measured the heart rates and Oxygen saturation rates while the neonates were in the incubators and before, during and after Illegal mother care.

3.8 Data Analysis

Data collected were presented in tables. Also, the data were tested in line with the study objectives using descriptive statistics, regression analysis and pared t-test statistics. Regression analysis was used to determine the effect of illegal/abnormal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates; to determine the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and paired sample t-test was used to ascertain if there is a statistically significant difference in the effect

of illegal/abnormal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the

Method	Variables	Range	Mean (N=30)	Std. Deviation
Acceptable method	Temp	33.50-38.30	36.02	1.26
	Pulse	134.00-160	146.40	7.80
	Resp	40.00-64.00	56.53	6.77
	SPO_2	95.00-98.00	96.90	1.12
Illegal/abnormal method	Temp	35.60-36.80	35.81	0.37
	Pulse	144.00-169.00	151.73	8.24
	Resp	42.00-64.00	45.37	4.90
	SPO_2	95.0-99.0	96.93	1.23

effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. The Statistical Package for Social Sciences (SPSS) Version 21 statistical software was used in analyzing the data for the study.

3.9 Ethical Consideration. The research did not expose any of the participants to harm and confidentiality and anonymity was maintained as their identity was not included in the work. Also, they can willingly withdraw at any time they feel like. Data was not falsified and all authors cited were acknowledged to avoid plagiarism.

IV. Results

Table 4. 1 Descriptive presentation of Vital Signs and Oxygen Saturation Rates of Neonates from Special Baby Care Unit (SCBU), of FMC Owerri. From January- June 2021.

(Source: Special Care Baby Unit (SCBU), FMC Owerri. 2021.

4.2 Regression Analysis Output

Table 4.2: Regression analysis output for the effect of acceptable method of care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.543[a]	.295	.213	1.1160
a. Predictors: (Constant), OXYGEN SATURATION RATE, PULSE, RESPIRATION				

ANOVA[b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.532	3	4.511	3.622	.026[a]
	Residual	32.382	26	1.245		
	Total	45.914	29			
a. Predictors: (Constant), OXYGEN SATURATION RATE, PULSE, RESPIRATION						
b. Dependent Variable: TEMPERATURE						

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	10.952	8.665		1.264	.217
	PULSE	-.058	.027	.363	2.186	.038
	RESPIRATION	-.040	.031	-.214	-1.279	.212
	OXYGEN SATURATION RATE	.198	.078	.428	2.545	.017
a. Dependent Variable: TEMPERATURE						

Table 4.3: Regression analysis output for the effect ofillegal/abnormal Mother Care Method on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.959[a]	.920	.911	.1079
a. Predictors: (Constant), OXYGEN SATURATION RATE, RESPIRATION, PULSE				

ANOVA[b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.484	3	1.161	99.815	.000[a]
	Residual	.303	26	.012		
	Total	3.787	29			
a. Predictors: (Constant), OXYGEN SATURATION RATE, RESPIRATION, PULSE						
b. Dependent Variable: TEMPERATURE						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.198	8.003		1.524	.140
	PULSE	.063	.015	1.445	4.091	.000
	RESPIRATION	.020	.011	.267	1.867	.073
	OXYGEN SATURATION RATE	.590	.108	2.106	5.463	.000
a. Dependent Variable: TEMPERATURE						

Table 4.4: Paired Samples Statistics for Comparing if there is statistically significant difference in the effect of illegal/abnormal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	TEMPERATURE	35.833	30	.3614	.0660
	TEMP_C	36.023	30	1.2583	.2297

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	TEMPERATURE & TEMP_C	30	-.091	.631

Paired Samples Test									
		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	TEMPERATURE - TEMP_C	-.1900	1.3404	.2447	-.6905	.3105	-.776	29	.444

Tables 4.2 and 4.3 presents the summary of the linear regression model for the effect of temperature of babies using the acceptable method of care and that of the illegal/abnormal Mother Care method on pulse rate, respiration rate and oxygen saturation rate of babies using each method.

With respect to table 4.2, the results obtained from the model data showed that the R value is 0.543, which indicates that the dependent variable has a fairly strong correlation with the explanatory variable at 54.3 percent. Also, the R^2 is 0.295, which indicates that 29.5 per cent of the dependent variable was explained by independent variable.

With respect to table 4.3, the value of R is 0.959, which implies that the dependent variable has a very strong correlation with the explanatory variable at 95.9 per cent. Also, the value of R^2 is 0.92, which indicates that 92 per cent of the dependent variable was explained by independent variable.

From table 4.4, with respect to the mean comparison of the temperature of babies cared for using the acceptable method of care and that of babies cared for using illegal/abnormal Mother Care, their relationship was very weak and negatively correlated ($r = -o.091$, $p > 0.001$).

There was a significant average difference between temperatures from acceptable method of care and that of illegal/abnormal Mother Care ($t_{29} = -0.776$, $p > 0.001$).On average, the temperatures from acceptable method of care were -.1900higher than the temperatures from acceptable Mother Care (95% CI [--0.6905, 0.3105]).

V. Discussion

From table 4.1, the average temperature for illegal/abnormal mother car (IMC) was 35.81^{oc}, while temperature for acceptable Mother Care [AMC] was $36.02^{oc,}$ P 151.73 for IMC, while for AMC was146.40. Respiratory rates IMC was 45.37, while for AMC was 56.53. The average Oxygen Saturation Rates for IMC was 96.90, while that of AMC was 96. 90

With respect to objective one, the study shows that the use of illegal/abnormal Mother Care and Acceptable Method of care both have positive effects on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. This finding is in line with the study of Dehghani et al. (2015), which argued that the illegal/abnormal Mother care method is effective in the improvement and stabilizing of vital signs of newborns, and nurses can train this method to mothers. This was also collaborated with the findings of Parsa et al. (2018), which indicated positive effect IMC on enhancement of physiological indices.

With respect to objective two, the study shows that the use of Acceptable method of care has positive effect on Arterial Oxygen Saturation Rates, while illegal/abnormal Mother Care has positive effects on Arterial Oxygen Saturation Rates of neonates. This finding is in line with the study of Arianna and Kirsten (2019) who did a comparative study to ascertained how does the technique of illegal/abnormal Mother Care (IMC) compared to traditional incubator use, regarding long and short-term outcomes of preterm and LBW infant recovery. Their study findings revealed that over all, IMC was most effective in caring for LBW and premature infants.

Objectives three

The study finding shows that there is a statistically significant difference in the effect of illegal/abnormal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.Dehghani et al. (2015) study support this finding. The study results showed that the average temperature variations and the arterial oxygen saturation rate between the two groups had significant differences in 3 days of examining ($P < 0/056$, $P = 0/00$), but there were no significant differences in the mean heart and respiration rate between the two groups (P = NS).

The implication of this study is that the stability of these vital signs through the IMC can be used as a complementary and alternative in the treatment of neonates, particularly those with low birth weight, which can decrease the duration of hospitalization and use of the incubator is an absolute equipment in their care.

VI. Summary

Chapter one provided a background for the study, the problem statement, as well as the rationale for the study. Also provided are the aims and objectives of the study and the significance of the study. From the review of literature, it shows that there is plethora of literatures on the effect of Illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates respectively and effect of Acceptable (or traditional) methods of care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates respectively but there is no literature on a comparative study of the Illegal Mother Care and that of the Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and most especially using the Nigeria demographic as a case study with special reference to the Federal Medical Centre (FMC) and this therefore remains a notable gap in literature regarding the comparative study of the effect of Illegal Mother Care and Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

Thus, this study will seek to establish the effects of Illegal Mother Care and Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. The objectives of the study is to established if there is a statistically significant difference in the effect of Illegal Mother Care on Neonatal Vital Signs and that of the effect of Acceptable Methods of Care on Neonatal Vital Signs and also to establish if there is a statistically significant difference in the effect of Illegal Mother Care on Arterial Oxygen Saturation Rates and that of the effect of Acceptable Methods of Care on Arterial Oxygen Saturation Rates. The findings from the study will help to make suggestive recommendations on the best care mothers can adopt in order to reduce infant mortality rate.

Chapter three provided an overview of the research settings, research design, and population of the study, sample size and sampling technique. Also provided is a description of the research instrument, the method of data collection, method of data analysis and the ethical consideration, while chapter four was presentation of data, chapter five is discussion of findings, and chapter six is summary, conclusion and recommendations.

VII. Conclusion

The study has achieved its objective to carry out a comparative study of the effects of Illegal Mother Care and Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. The study

specifically determined the effect of Illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates; determined the effect of Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and ascertained if there is a statistically significant difference in the effect of Illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

The study relied on the Attachment Theory which is a psychological, evolutionary and ethological theory concerning relationships between humans. The most important tenet is that young children need to develop a relationship with at least one primary caregiver for normal social and emotional development.Within attachment theory, infant behaviour associated with attachment is primarily the seeking of proximity to an attachment figure in stressful situations. Infants become attached to adults who are sensitive and responsive in social interactions with them, and who remain as consistent caregivers for some months during the period from about six months to two years of age.

Also, the study made use of primary data collected from the Special Care Baby Unit (SCBU) of the Federal Medical Centre, Owerri. The data gathered were analysed using regression analysis and paired sample test and the research hypotheses were tested using the result from the regression analysis and paired sample t-test.

From the data analysed, the following are the study findings:

i.) The use of Illegal Mother Care has positive effect on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

ii.) The use of acceptable method of care has negative impact on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

iii.) There is a statistically significant difference in the effect of Illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates.

Recommendations

1.) One of the study findings shows that there is a statistically significant difference in the effect of Illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of Acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. This can be well attributed to the much stability in the data with respect to temperature, pulse rate, respiration and oxygen saturation rate for the Illegal Mother Care when compared to the acceptable care method. This suggests that direct skin contact of mother and baby or skin-to-skin contact can help the stability of this vital sign.

2.) The stability of these vital signs through the IMC can be used as a complementary and alternative in the treatment of LBW, particularly those with low birth weight, which can decrease the duration of hospitalization and use of the incubator is absolute equipment used.

3.) Furthermore, the study findings suggest that there is a case for making IMC the standard of care for the LBW newborn in our setting. However, adequate planning and manpower would be needed to motivate and train mothers to undertake IMC and to monitor that they do so satisfactorily.

4.) This study also recommended that IMC should be taken as one of the routine cares of premature infants to positively influence their health.

5.) One of the study findings shows that there is a statistically significant difference in the effect of Illegal Mother Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates and that of the effect of acceptable Methods of Care on Neonatal Vital Signs and Arterial Oxygen Saturation Rates. This can be well attributed to the much stability in the data with respect to temperature, pulse rate, respiration and oxygen saturation rate for the Illegal Mother Care when compared to the acceptablecare method. This suggests that direct skin contact of mother and baby or skin-to-skin contact can help the stability of this vital sign.

5 The stability of these vital signs through the IMC can be used as a complementary and alternative in the treatment of LBW, particularly those with low birth weight, which can decrease the duration of hospitalization and use of the incubator is absolute equipment used.

6 Furthermore, the study findings suggest that there is a case for making IMC the standard of care for the LBW newborn in our setting. However, adequate planning and manpower would be needed to motivate and train mothers to undertake IMC and to monitor that they do so satisfactorily.

7 This study also recommended that IMC should be taken as one of the routine cares of premature infants to positively influence their health.

Implication for Nursing

The implication of this study is that the stability of these vital signs through the IMC can be used as a complementary and alternative in the treatment of LBW, particularly those with low birth weight, which can decrease the duration of hospitalization and use of the incubator is an absolute equipment used.

This study will enable nurses to manage neonates appropriately wherever they are working, whether

rural or urban, primary, secondary or tertiary hospital.

The findings of this study will also help nurses know when and how to use illegal mother care when there is no acceptablemethod like incubators, and when to use only the acceptablemethods of care.

Contribution to Knowledge

This study will contribute to the knowledge on the management of low birth weight/ premature neonates in our society. It will also add to literatures on how illegal mother care and acceptable methods of care as they affect neonatal vital signs and arterial oxygen saturation rates.The study findings suggest that there is a case for making IMC the standard of care for the LBW newborn in our setting. However, adequate planning and manpower would be needed to motivate and train mothers to undertake IMC and to monitor that they do so satisfactorily.

It will help parents and care givers on the best method to use in nursing preterm and low birth weight neonates, as IMC can be used as an alternative to incubators.

Limitations of the study.

Lack of literatures on the study, as very few works have been done on this topic especially in Nigeria.Difficulty in getting mothers to engage inillegal/abnormal mother care, the busy and sensitive nature of Special Baby Care Unit made collection of data difficult sometimes. COVID-19 and all its attendant stress also made the work cumbersome.

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