

## Effect of the Four Phases Teaching Methods Related Postnatal Practices and Immediate Baby Care among Nursing Students

Fatma Moataz Amin Megahid<sup>1</sup>, Samia Abd El Hakem Hassenin Aboud<sup>2</sup>, Somaya Ouda Abd Elmoniem Mohamed<sup>3</sup> and Mai Mahmoud Hassan<sup>4</sup>

(1) B.Sc. in Nursing (2013), Benha University, Nursing Specialist at Benha Fever Hospital, (2)(3) Professor of Obstetrics and Gynecological Nursing, Faculty of Nursing, Benha University, and (4) Lecturer of Obstetrics and Gynecological Nursing, Faculty of Nursing, Benha University.

### Abstract

**Background:** Four phases teaching method is a more recent teaching approach for the acquisition of procedural skills. **Aim of the research:** Was to evaluate the effect of four phases teaching methods related to postnatal practices and immediate baby care among nursing students. **Research setting:** This study was conducted at Faculty of Nursing, Benha University. **Research design:** A Quasi experimental design was utilized **Research sample:** A purposive sample of 250 Intern nurses students were selected according to inclusion criteria. **Tools of data collection:** Consisted of three tools; **Tool I:** Self-administered Questionnaire which comprised of two parts: Student's general characteristics and student's knowledge related to postnatal practices and immediate baby care. **Tool II:** Observational Checklist regarding postnatal practices and immediate baby care. **Tool III:** The student satisfaction regarding teaching method. **Results:** After implementation of four phases teaching methods, the total knowledge and practices regarding postnatal practices and immediate baby care was a highly statistically significant difference between pre and post intervention (P-value  $\leq 0.001$ ). Also, more than three quarters of nursing students have high satisfaction regarding the four phases teaching methods. Finally, there was a highly significant positive correlation between total knowledge and total practices regarding postnatal procedures and immediate baby care pre and post intervention of the four-phase teaching method. **Conclusion:** The four phases teaching methods were effective in improving student's knowledge and practices related to postnatal practices and immediate baby care. **Recommendations:** Integrating the four-phase teaching approach into all practical curricula for nursing students.

**Keywords:** Four phases teaching methods, immediate baby care, nursing students, postnatal practices.

### Introduction:

In all areas of nursing education and practice, teaching methods is important to obtain information about student learning, evaluate competencies, assess clinical performance, and arrive at other decisions about students and nurses. The four phase teaching methods allow students to learn different skills during a short period of time.

Observation and looking are focused in this method. Students' learning happens once observing the needed skills. The main difference in this method compared with the traditional method is that the students work with the real devices (Oermann et al., 2024).

The four-phases teaching methods was presented by Walker & Peyton, 1998

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which proposed to teach health nursing students. This method consists of four phases: demonstration and tell phase is the first phase where the trainer explains the aim of the activity then, trainer performs the needed skills. The second phase is called deconstruction phase where the trainer repeats the intended skills. **(Zhang et al., 2024).**

Comprehension phase is the third step where the trainees should have a true understanding of what is being taught and should be able to talk about the skill. Finally, the practice phase where the trainees perform the needed skills in the presence of the trainer so that trainees can be evaluated by trainer **(Xiaomin et al., 2023).**

A skills lab's ability to facilitate learning has been demonstrated in relation to a few key components, including clear learning objectives and curricular integration, the reliability of the simulated scenarios, consistent intentional practice, and feedback. The positive effect of skills-lab training sessions on learning outcomes and transfer of acquired skills to clinical practice have been shown in a variety of different settings **(Nair et al., 2024).**

Postnatal period is the valuable period for the mother and the newborn, many mother experiences physiological, psychological, and social changes during these periods. The postnatal phase is defined by the WHO as the period which starting as soon as the baby is born and lasting up to six weeks (42 days) afterward **(Kepley et al., 2023).**

In order to meet the unique needs of both the mother and newborn, postnatal care should address the following issues, promotion of breastfeeding, birth spacing, immunization, and maternal nutrition; early

detection and treatment of problems and diseases and prevention of these issues. A mother and baby receive customized care after childbirth, known as postnatal care. For most mothers and newborns, the postnatal period is straightforward, nonetheless, any deviation from the anticipated recuperation must be addressed during this time **(Gayesa et al., 2023).**

Therefore, health professional's care, especially nurses, is of utmost, as can contribute towards women's best adjustment during postnatal period, and professionals need to be grounded in technical and scientific knowledge to provide skilled care. The puerperium being a period of risk, skilled nursing care is then essential, based upon the prevention of complications, physical comfort and emotional and educational activities that will endow women with tools to take care of herself and newborn **(Sendas and Freitas., 2024).**

Immediate baby care is vitally important for survival, growth and development of a newborn. Despite several studies conducted about maternal and child health care practices, little is known about factors that determine behaviors related to immediate care of newborn. Most women are unaware of importance of immediate care of newborn and many unsafe behavior do exist such as common use of untrained attendants, unsafe cord care, immediate bathing of baby **(Leifer, 2022).**

High-quality universal newborn health care is the right of every newborn everywhere. Babies have the right to be protected from injury and infection, to breathe normally, to be warm and to be fed. All newborns should have access to Immediate baby care, which is the critical care for all babies in the first days after

birth. Immediate baby care involves delayed cord clamping, thorough drying, assessment of breathing, skin-to-skin contact, early initiation of breastfeeding (Diego et al., 2023).

**Significance of study:**

The number of women who died each year from complications of childbirth declined from 451,000 in 2000 to 287,000 in 2020. Almost 800 women are dying each day from complications in childbirth. The first 28 days of life is the most vulnerable time for a child's survival. Children face the highest risk of dying in their first month of life at an average global rate of 17 deaths per 1,000 live births in 2022, down by 53 per cent from 37 deaths per 1,000 live births in 1990 (WHO, 2023).

The majority of postpartum maternal deaths are caused by directly treated or preventable conditions including sepsis and hemorrhage. Lower-income countries account for the majority of maternal fatalities. Egypt has a low number of highly skilled practitioners with limited clinical experience, while having quite adequate facilities and equipment (El-Agwany, 2022).

In the last twenty-five years, Egypt has made significant progress toward enhancing the health and survival of mothers and children. The mortality rate decreased from 108 to 27 per 1,000 live births between 1988 and 2014. little over half of these deaths happened in the first month of the newborn's life. (UNICEF, 2020). One of the most fundamental clinical skills is postnatal practices and immediate baby care which is the most crucial one as a life-saving and the most anxiety provoking for students owing to difficulty (Abdelhady and Farag, 2023).

Additionally, the nursing students thought that training on postnatal practices and immediate baby care using traditional methods was not sufficient for students to be competent in performing skills. This necessitates the introduction of an innovative teaching approach such as the four-phase teaching method for students to improve practice in skills lab which in turn could efficiently affect practice in the different clinical settings. (Abd El-Rahman et al., 2023).

Inappropriate postnatal practices can occasionally cause the mother and/or the baby to die or become disabled. So, this study aimed to evaluate effect of the four phases teaching methods related postnatal practices and immediate baby care among nursing students.

**Aim of the Study:**

This study aimed to evaluate the effect of four phases teaching methods related postnatal practices and immediate baby care among nursing students.

**Research Hypotheses:**

H1: Nursing students would demonstrate high level of knowledge related to postnatal practices and immediate baby care after applying the four phases teaching methods than before applying it.

H2: Nursing students would demonstrate better practice related to postnatal practices and immediate baby care after applying the four phases teaching methods than before applying it.

H3: Nursing students would demonstrate high satisfaction regarding applying four phases teaching methods.

**Subjects and method:**

**Study design:**

A quasi-experimental design was used to fulfill the aim of the study.

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### **Study setting:**

The study was conducted at Faculty of Nursing, Benha University, at college lecture hall for theoretical part and obstetric lab for practical part in the second floor.

### **Sampling:**

**Sample type:** A purposive sample was used.

### **Sample size:**

A (250) nursing students who met the inclusion criteria were included in the current study, calculated according to the following formula (Yamane, 1967).

$$n = \frac{N}{1 + N(e)^2}$$

Where N= total population (665) students at Intern year at (2023/2024), n= required sample size and e= level of error= 0.05.

### **Inclusion criteria of the sample:**

Intern nurse's students who didn't receive lectures or training in obstetrics and gynecology department yet, and had the will to participate in this study.

### **Tools of data collection:**

Three tools were utilized for collecting data and it was designed by the researchers as following:

#### **Tool I: Self-administered Questionnaire:**

It was designed by researchers after reviewing related literature (Ayre-de-campos, 2017; Vuillemin, 2000). It was written in an English language in the form of multiple-choice questions. It is comprised of two parts as following:

**First part:** Student's general characteristics which involved three questions about age, gender and place of residence.

**Second part:** Student's knowledge related postnatal practices and immediate baby care which involved 40 questions.

#### **Scoring system for knowledge:**

A correct answer was scored as "2" and the incorrect was scored "1". The total

knowledge score was calculated by the addition of the total score of all sections. The higher scores mean higher levels of knowledge regarding postnatal practices and immediate baby care. The total knowledge was scored as following:

-Adequate knowledge when the total score was  $\geq 75\%$ .

-Inadequate knowledge when the total score was  $< 75\%$ .

**Tool II:** Observational Checklist regarding postnatal practices and immediate baby care: This tool was developed by researchers after reviewing related literature (Gabbe et al., 2016) to assess student's practice and included 11 procedures regarding postnatal practices and immediate baby care. It is comprised of two parts as following:-

**First part:** Observational checklist regarding postnatal practices as: fourth stage of labor (21 items), episiotomy care (24 items), perianal care (21 items), fundus and lochia assessment (16 items), breast care (20 items), and family planning (47 items).

**Second part:** Observational checklist regarding immediate baby care as: suction, warmth and apgar score (12 items), general physical examination (6 items), cord care (8 items), eye care (5 items), and general immediate baby care (9 items).

#### **Scoring system for practices**

Each item of the procedure was assigned a score (2) if done and a score (1) if not done. The total score was calculated by the addition of the total score of all procedures. The total practices was scored as following:

-Satisfactory practices when the total score was  $\geq 75\%$ .

-Unsatisfactory practices when the total score was  $< 75\%$ .

**Tool III:** The Student Satisfaction regarding teaching method: This tool was developed by National League for nursing (National

**League for Nursing (NLN), 2017)** and was adapted by the researchers to evaluate student's satisfaction regarding four phases teaching methods. It consisted of (6 items) that measure learner satisfaction and it was used after application of the program only.

#### **Scoring system for satisfaction**

Each item was rated based on three points of likert scale ranging from (3) if the response agreed, (2) some extent agree and (1) disagree. The total score of satisfaction were calculated by the addition of the total scores of all items. The higher score indicated higher satisfaction. The total satisfaction score as following:

- Satisfied when the total score was  $\geq 75\%$ .
- Unsatisfied when the total score was  $< 75\%$ .

#### **Validity of the tools:**

Tools of data collection were reviewed by three panels expertise in the field of Obstetrics and Gynecology Nursing at Faculty of Nursing, Benha University to test content validity and according to judgment the questionnaire was modified related to clarity of sentences and appropriateness of contents.

#### **Reliability of the tools:**

Reliability was calculated by Cronbach's alpha coefficient test, and the internal consistency of Student's Knowledge (Tool I-Second part) was  $\alpha=0.86$ . (Tool II) Observational Checklist regarding postnatal practices was  $\alpha=0.79$  and Observational Checklist regarding immediate baby care was  $\alpha=0.81$ . The Student Satisfaction in Learning Instrument (Tool III) was  $\alpha=0.83$ .

#### **Ethical considerations:**

-The study approval was obtained from Scientific Research Ethical Committee of faculty of nursing at Benha University before starting the study.

-Aim of the study was explained to each student before applying four phases of

teaching methods and starting data collection to gain their confidence and trust.

-Oral consent was obtained from each student before participant in the study.

-A letter of approval was sent to the Dean of faculty of nursing Benha University including the aim and setting of the study.

-Data was collected and treated confidentiality.

-The study tools was ensured that the study was not touch participant's dignity, culture, traditional and religious aspects and was not cause any harm for any participant during data collection. Also was not include any immoral

statements hence respect human rights.

-The students were free to withdraw from the study at any time.

#### **Pilot study:**

A pilot study was carried out on 10% of sample size (25 students) to assess study setting, availability, clarity and applicability of tools used for data collection as well as estimation of the time needed. The pilot study was included in the study as no modifications were done.

#### **Field work:**

The study was carried out through four months starting from the beginning of March 2024 to the end of June 2024. The researchers was visited the previously mentioned setting three days/ week (Saturday, Sunday and Monday) according to academic schedule table of students at internship year from 9 Am to 3 Pm. The study was conducted through five phases: preparatory, assessment, planning, implementation and evaluation

#### **Preparatory phase**

The researchers were taught and trained on the four-phase teaching method and read many literature reviews about this method. Also, the researchers were reviewed the national and international advanced

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literature and then design tools of data collection. Finally, the researchers conducted the pilot study to ascertain content validity of the tools.

### **Assessment phase**

The researchers attended the previous mentioned study setting after taking the legal aspect from scientific research ethical committee of faculty of nursing Benha University. The researchers distributed a structure self-administered questionnaire to nursing students to assess student's general characteristics and student's knowledge regarding postnatal practices and immediate baby care and the average time for completion of this tool was around 120 minutes, then the researchers transferred the students nursing to obstetrics lab to assess student's practices regarding postnatal practices and immediate baby care through observational checklist and the average time for completion of this tool was around 5-10 minutes for each checklist.

### **Planning phase**

Based on baseline data obtained during assessment phase, reviewing literatures and theoretical knowledge of various aspects of the study using books, articles and internet. A teaching booklet about four phases teaching methods related postnatal practices and immediate baby care prepared with illustrated pictures, educational aids such as computers and PowerPoint software were used. The researchers obtained the intern nursing students visiting schedule and plan the implementation and evaluation phases.

### **Implementation phase**

The researchers provided appropriate college lecture hall for the students nurses during interviews to maintain privacy and confidentiality of study.

The researchers classified the study sample into 10 subgroups, the number of the

students in each group was approximately 25 students.

The researchers applied four phases of teaching methods through interactive six sessions for three days per week for sixteen consecutive weeks, the researchers used the following methods of teaching such as (lecture, group discussion, brain storming, demonstration, white board and female and baby model).

The four phases teaching method was applied through two theoretical sessions at the first two weeks and three practices sessions regarding postnatal practices and immediate baby care through eight consecutive weeks as well as six weeks for evaluation.

**First session:** The researchers explained Postnatal practices (Definition, Duration, General physiological changes of productive organ, psychological changes, Danger signs during postnatal period, Postnatal care and Nursing care during postnatal period), duration of this session (60-90) minutes .

**Second session:** The researchers explained immediate baby care (Definition, Importance, Essential newborn care, Nursing care), duration of this session (30-40) minutes.

**Third session:** The researchers applied four phases teaching methods at maternal and child-health lab starting by giving explanations about postnatal practices and immediate baby care (**First phase demonstration and telling**).

Then, the researchers repeated again the postnatal and immediate baby care skills in details (**Second phase deconstruction**), the students was attended the theoretical lecture room and transferred into skill lab for applying postnatal practices and immediate baby care by submitted scenario on a simulated lab (obstetrics lab) by well

training simulates manikin by using four phase teaching method. The students described each skill whereas the researchers track the student's instructions (**Third phase comprehension**), the researchers was reached the step three in this phase and students had a relay understanding of what's being taught and should be able to talk and discuss skills.

The researchers divided the third session into three clinical sessions regarding postnatal practices as the following :

**-1<sup>st</sup> clinical session:** The researchers was explained (Fourth stage of labor), duration of clinical session 45 minutes.

**-2<sup>nd</sup> clinical session:** The researchers explained (Episiotomy care), duration of clinical session 45 minutes.

**-3<sup>rd</sup> clinical session:** The researchers explained (Perianal care), duration of clinical session 45 minutes.

**Fourth session:** The researchers divided the fourth session into three clinical sessions regarding postnatal practices as the following :

**-1<sup>st</sup> clinical sessions:** The researchers explained (Fundus and lochia assessment) duration of clinical session 45 minutes.

**-2<sup>nd</sup> clinical session:** The researchers explained (Breast care), duration of clinical session 45 minutes.

**-3<sup>rd</sup> clinical session:** The researchers explained (Family planning), duration of clinical session 45 minutes.

**Fifth session:** The researchers divided the fifth session into two clinical sessions regarding immediate baby care as the following:

**-1<sup>st</sup> clinical sessions:** The researchers explained (Suction, General physical examination), duration of clinical session 30 minutes.

**-2<sup>nd</sup> clinical session:** The researchers explained (Cord care, Eye care and Immediate baby care), duration of clinical session 30 minutes.

At the end of each session the researchers gave 10 minutes for all participants for asking question then clarified.

**Sixth session:** The researchers evaluated the effect of the four-phase teaching method on improving nursing student's practice. Through the students perform the complete skills under the researcher's supervision (**fourth phase practice**), each intern nurse student was evaluated by Observational checklist. Intern nurse student's practices was assessed on 11 checklists immediately after implementation of four phases teaching methods (duration of each checklist from 7-10 minutes).

#### **Evaluation Phase**

This phase was utilized to investigate the effect of the four phases teaching methods related postnatal practices and immediate baby care among nursing students by using the same format of tools which were used before the implementation of the four phases and lecture. Immediate evaluation was conducted after the implementation of the four-phase teaching method to evaluate nursing student's knowledge and practice of practical skills.

#### **Statistical analysis:**

Data was verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Tests of significance (chi square, fisher exact test, Pearson correlation and coefficient test) were applied to test the study hypothesis.

-A statistically significant difference was considered at  $p \leq 0.05$

-A highly statistically significant difference

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was considered at p-value  $p \leq 0.001$ .

**Results:**

**Table (1):** Clarifies that 41.2% of the studied sample were in the age of 20-22 years and 58.8% were in the age of 22-24 with the mean age of  $21.94 \pm 0.93$  years. Regarding gender shows that 82% were female and 18% were male. Moreover, 72% of the studied samples respectively were from rural areas and 28% were from urban areas.

**Figure (1):** Illustrates that more than three quarters (79.2%) of the post implementation of the four phases teaching methods had high satisfaction in total knowledge regarding postnatal care and immediate baby care compared to (39.2%) of pre implementation of four phases teaching methods ( $P \leq 0.001$ ).

**Figure (2):** Clarifies that more than three quarters (79.6%) of the post implementation of the four phases teaching methods had satisfactory practice regarding postnatal procedures and immediate baby care compared with (38.4%) of the pre implementation of the four phases teaching methods.

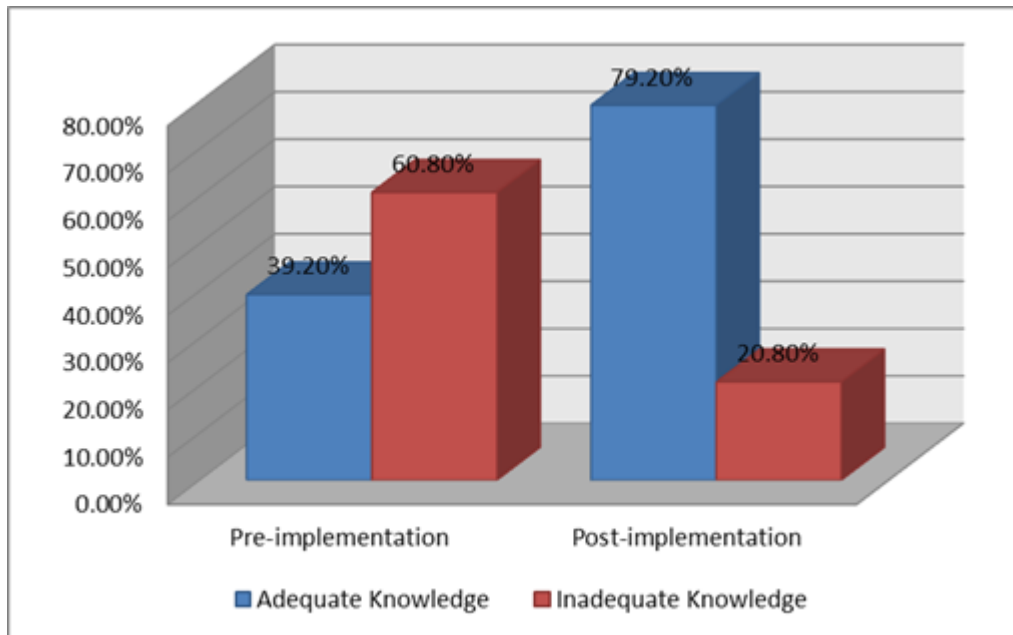
**Figure (3):** Illustrates that more than three quarters (82.8%) of nursing students have high satisfaction regarding the four phases teaching methods.

**Table (2):** Illustrates that there was a highly significant positive correlation between total knowledge and total practices regarding postnatal procedures and immediate baby care pre and post implementation of the four phases teaching methods ( $P$ -value  $\leq 0.001$ ).

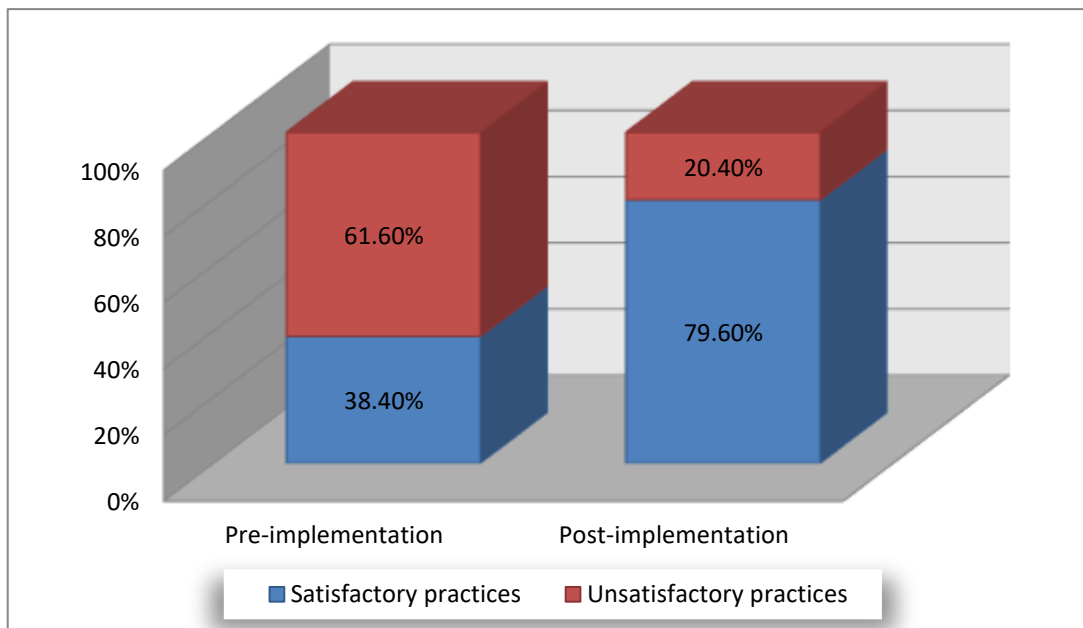
**Table (1): Distribution of the nursing students studied according to general characteristics (n=250).**

Items	No	%
<b>Age (Years)</b>		
20-<22	103	41.2
22-24	147	58.8
<b>Mean ±SD</b>	21.94±0.93	
<b>Gender</b>		
Male	45	18.0
Female	205	82.0
<b>Residence</b>		
Rural	180	72.0
Urban	70	28.0



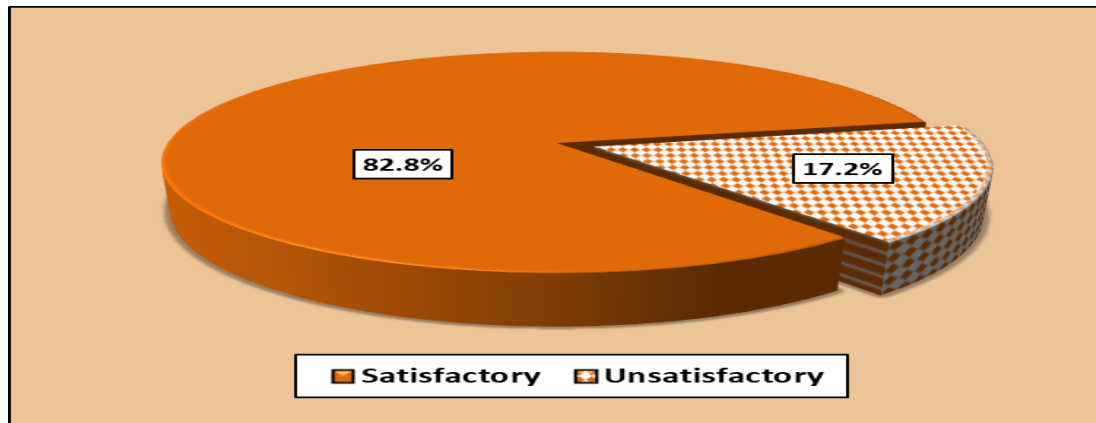


**Figure (1): Distribution of studied nursing students' total knowledge regarding postnatal care and immediate baby care at Pre and post implementation of the four phases teaching methods (n=250)**



**Figure (2): Distribution of nursing students 'total practices regarding postnatal procedures and immediate baby care at pre and post implementation of the four phases teaching methods (n=250).**

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**Figure (3):** Distribution of nursing student's satisfaction regarding the four phases teaching methods (n=250).

**Table (2):** Correlation coefficient between total knowledge and total practices scores of studied nurses at Pre and post implementation of the four phases teaching methods (n=250).

Variables	Total knowledge			
	Pre-implementation		Post-implementation	
	r	P-value	r	P-value
Total practices regarding postnatal practices	0.587	0.000* *	0.598	0.000**
Total practices regarding immediate baby care	0.454	0.000* *	0.573	0.000**

**Discussion:**

The four phases teaching methods consisted of, demonstration and tell phase is the first phase where the trainer explains the aim of the activity then, trainer performs the needed skills. The second phase is called deconstruction phase where the trainer repeats the intended skills. Comprehension phase is the third step where the trainees should have a true understanding of what being taught and should be able to talk about the skill. Finally, the practice phase where the trainees perform the needed skills in the presence of the trainer so that trainees can be evaluated by trainer (Sobhy et al., 2022).

Postnatal practices and immediate baby care play a crucial role in maternal and child health, particularly within the realm of nursing education. The education of nursing students encompasses a comprehensive understanding of the physiological and psychological requirements of both the mother and the newborn in the postnatal timeframe. This educational process involves familiarizing students with the significance of skin-to-skin contact, the initiation of breastfeeding, and the monitoring of vital signs in the newborn (Kumar et al., 2023).

Regarding general characteristics of the studied nursing students the present study, clarified that more than half of the studied students were in the age of 22-24 with the mean age of  $21.94 \pm 0.93$  years. Regarding gender shows that the majority of the studied students were female. Moreover, about three fourths of them were from rural areas.

This result agreed with **Jittitaworn & Wisanskoonwong, (2023)** who conducted a study in Thailand about “Self-directed learning about normal birth with web-based support for nurse-midwife students in Thailand: A mixed methods study” and found that the majority of the participants were females, with a mean age of  $21.52 \pm SD 2.40$  years. Also, this result was strongly agreed with **Yu et al., (2023)** who carried out a study in China about “Effectiveness of an optional breastfeeding course for multidisciplinary undergraduate healthcare students: A quasi-experimental study” and revealed that the majority of the students were females.

On the other hand, this result was contrasting to **Meena, (2023)** in their study entitled “A Study to Evaluate the Effectiveness of Planned Teaching Program on Knowledge and Attitude Regarding Active Management of Third Stage of Labor Among B. Sc. Nursing Part IV Students at Selected Nursing Colleges, Kota (Raj.)” who signified that majority of subjects were male, and the majority of subjects had urban area of residence .From the researchers’ point of view, it may be due to Nursing has traditionally been seen as a female-dominated field, often viewed as an extension of women's roles as caregivers in the home.

Relating to nursing students' total knowledge regarding postnatal practices and

immediate baby care at pre and post intervention, the present study findings indicated that more than one third of the studied students had adequate and about two thirds had inadequate knowledge regarding postnatal practices and immediate baby care at pre implementation of the four phases teaching methods, while the majority of the studied students had adequate and less than one quarter had inadequate knowledge regarding postnatal practices and immediate baby care at post intervention. The findings were also supported by **Beraki et al., (2020)** who carried out a study about "Knowledge on postnatal care among postpartum mothers during discharge in maternity hospitals in Asmara" indicated the poor quality of care given. The major requirement for quality service is having effective service personnel in place **Sikorski et al., (2018)** who conduct a study about "Could postnatal women's groups be used to improve outcomes for mothers and children in high-income countries" mentioned that the nurse must know about physical changes in the mother and psychosocial and emotional changes in the entire family to provide quality care for postpartum women.

This finding follows **Aschalew, (2016)** who conduct a study about "Knowledge, attitude and practice of newborn care among postnatal mothers at governmental health centers" illustrated that approximately (55.3%) of the nurses in the sample had clear awareness of immediate neonatal care. This result is also consistent with **Shinde, (2018)**, who carried out a study about "Knowledge staff nurses in immediate care of newborn baby and their implications. Ethiopia" noticed that less than half of the nurses were aware of newborn care. From the researchers’ point of view, this notable improvement illustrates the effectiveness of

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the four phases teaching methods in enhancing students' understanding and competence in this critical area of nursing care. Also, improved knowledge among nursing students can lead to better postnatal care outcomes, as well-informed nurses are more likely to implement best practices, identify and respond to complications early, and provide high-quality care to mothers and newborns.

By evaluating nursing students' total practices regarding both postnatal procedures and immediate baby care at pre and post implementation of the four phases teaching methods, the present study demonstrated that about two thirds of the students had unsatisfactory practices at pre implementation of the four phases teaching methods, and the majority of the studied students had satisfactory practices at post implementation of the four phases teaching methods.

Regarding to nursing student's total satisfaction related to the four phases teaching methods, the current study showed that the majority of the studied students were satisfied, with this teaching approach. This result was supported by **Sobhy et al., (2022)** who carried out the study at technical Nursing Institute at Benha University about "Application of four phases teaching method regarding care of labour among nursing students and its effect on their emotional intelligence" illustrated that more than three quarters of the intervention group had high satisfaction in learning compared with less than half of the control group.

In addition, **Gaber et al., (2022)** who stated that internship students satisfied more than three quarter in post-test training program compared to the minority in pretest training program. From the researchers' point of view, high satisfaction levels among

students often indicate that the teaching methods are effective and well-received. When the majority of nursing students' express satisfaction, it suggests that the four phases teaching methods are successful in enhancing their understanding and application of postnatal practices and immediate baby care. This is important for ensuring that students are adequately prepared for real-world clinical scenarios.

Considering correlation coefficient between total knowledge and total practices scores of studied intern nursing students at pre-and post, the present study findings illustrated that there was a highly significant positive correlation between total knowledge and total practices regarding postnatal procedures and immediate baby care pre and post intervention of the four-phase teaching method.

This result finding was in accordance with **Al Wakeel et al., (2024)** who demonstrated that there was a highly statistically significant positive correlation between total knowledge and total practices regarding postnatal procedures and immediate baby care pre and post intervention. This indicates that higher knowledge scores were linked to higher practice scores. From the researchers' point of view, this result suggests that the four-phase teaching method effectively enhances both theoretical understanding and practical application of postnatal care. This implies that as nurses' knowledge increases, their practical skills in postnatal procedures and baby care also improved significantly, highlighting the success of the teaching method in bridging the gap between theory and practice.

**Conclusion:**

Based on the results of the present study, it could be concluded that the four-phase teaching methods were effective regarding student's knowledge and practices related to postnatal practices and immediate baby care. In addition, there was a highly statistical significance after implementation of the four-phase teaching method than before regarding knowledge and practices. Therefore, the aim of the study was achieved, and the study hypotheses were supported.

**Recommendations:**

-Integrating the four phase teaching approach into all practical curricula for nursing students.

-Replication of the study using a large probability sample for generalization of results.

Further study need to be performed:

1- application of four phases teaching methods on nursing student's performance in normal labor.

2- An educational interventional study to compare conventional versus four phases teaching method in training nursing students on antenatal practices.

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## تأثير طرق التدريس ذات الأربع مراحل فيما يتعلق بممارسات ما بعد الولادة ورعاية الطفل الفورية بين طلاب التمريض

فاطمه معتز أمين- سامية عبد الحكيم حسنين عبود- سميرة عودة عبد المنعم محمد- مي محمود حسن

تعد طرق التدريس ذات الأربع مراحل بمثابة نهج تعليمي تدريجي، وتعتبر من الطرق القيمة لتحسين المعرفة والممارسات لدى طلبة التمريض المتعلقة بممارسات ما بعد الولادة ورعاية الطفل الفورية للحفاظ على حياة الأم والطفل. لذا هدفت الدراسة إلى تقييم تأثير طرق التدريس ذات الأربع مراحل فيما يتعلق بممارسات ما بعد الولادة ورعاية الطفل الفورية بين طلاب. أجريت هذه الدراسة في كلية التمريض جامعته بنها، حيث تم استخدام الدراسة الشبه تجريبية وتم اختيار عينة هادفة مكونة من ٢٥٠ طالباً من طلبة الأمتياز. كشفت هذه الدراسة عن النتائج الآتية: بعد تنفيذ الأربع مراحل طرق التدريس، كان إجمالي المعرفة والمهارات فيما يتعلق بممارسات ما بعد الولادة ورعاية الطفل الفورية فرقاً ذو دلالة إحصائية عالية بين قبل التطبيق وبعد التطبيق. كما أن أكثر من ثلاثة أرباع طلاب التمريض لديهم رضا عالٍ عن طرق التدريس ذات المراحل الأربع. وأخيراً كانت هناك علاقة إيجابية عالية بين المعرفة الكلية والمهارات الكلية فيما يتعلق بإجراءات ما بعد الولادة والرعاية الطفل الفورية قبل وبعد تطبيق طرق التدريس ذات الأربع مراحل. وقد أسفرت النتائج على أن طرق التدريس ذات الأربع مراحل فعالة في تحسين معرفة الطالب ومهاراته المتعلقة بممارسات ما بعد الولادة ورعاية الطفل الفورية. في ضوء هذه النتائج الدراسة الحالية قد أوصت الدراسة إلى دمج طريقة التدريس ذات الأربع مراحل في جميع المناهج العملية لطلاب التمريض.