

## **COVER PAGE**

**Title:** Effectiveness of Pedagogical Framework (Learn, See, Practice, Prove, Do, Maintain) On Knowledge, Skill, and Self-Efficacy of Nursing Students Regarding Neonatal Resuscitation

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## **BACKGROUND**

Globally, 136 million births are reported annually (Sintayehu et al., 2020) and about, 4 million birth suffer respiratory distress (Garvey & Dempsey, 2020). where 10% entail simple resuscitative efforts while 0.1% need advanced measures to initiate breathing (Yeo et al., 2020). Despite all the efforts three-quarters of neonatal deaths occur due to asphyxia (Liu et al., 2016). Unfortunately, 98% of these deaths occur in low, and middle-income countries (Garces et al., 2017; Mildemberger, Ellis, & Lee, 2017) in which Pakistan is ranked on 3<sup>rd</sup> among countries that have the highest neonatal deaths (Afshan, Narjis, & Qayyum, 2019). The neonatal mortality rate in Pakistan is reported as 46/1000 live births (UNICEF, 2018). It is suggested that 30% of these deaths can be prevented through provision of trained emergency birth attendants (Ashish et al., 2017; Shikuku, Milimo, Ayebare, Gisore, & Nalwadda, 2018) in which education plays an integral role.

Nurses are the largest workforce in the healthcare system that are directly engaged in the provision of newborn care. Therefore, they should be conversant and competent in emergency newborn management. However, the majority of them are not skillful in the respective field (Budhathoki, Gurung, Ewald, Thapa, & KC, 2019). The situation is not very different when we are talking about nursing students, our future work force often reported unprepared and lacking the confidence in basic lifesaving skills such as resuscitation (Carolan-Olah et al., 2018; Malarvizhi, Glory, Rajeswari, & Vasanthi, 2017; Tastan et al., 2017).

Though, Pediatric care is a basic component of the nursing curriculum, instituting resuscitation as a vital part of students competencies during their undergraduate studies (Tastan et al., 2017). Yet, studies reported nursing students possess inadequate knowledge in the respective field (Malarvizhi et al., 2017). The skills of nursing students might be affected positively and

negatively due to their training during their undergraduate studies. Since, it is well documented that effective educational programs in preservice settings such as schools of midwifery, nursing, and medicine, established more active forms of lifelong learning to improve the quality of care (Singhal, McMillan, Savich, Matovelo, & Kamath-Rayne, 2020). However, like many other developing countries in Pakistan, the education of nursing students is mostly based on traditional methods that are lacking the component of adequate learning and training in neonatal resuscitation (Huang et al., 2019; Pinar, Akalin, & Abay, 2016), resulting an insufficient knowledge among many trainees on assessment (Huang et al., 2019). Recently, several studies compare traditional methods of educational intervention with integrating new strategies and conclude that new methods are indispensable for nursing education (Kim & Ahn, 2019a; Pinar et al., 2016).

The “Learn, See, Practice, Prove, Do, and Maintain” (LSPPDM) pedagogy is one of such frameworks synthesized after intensely reviewing the literature and acting as a guiding path in teaching and learning of procedural skills (Sawyer et al., 2015). It is augmented that it can impart its role in the improvement of clinical practice resultant to increase patient satisfaction in hospitals (Sawyer et al., 2015). The major goal of LSPPDM pedagogy is to learn a psychomotor skill, accomplishing aptitude, and upholding skill once attained. It is based on adult learning theory that can support the acquisition and maintenance of skills in the area of neonatal resuscitation (Ades & Lee, 2016).

As Knowledge is considering a prerequisite for competence in skill performance and to evaluate the effectiveness of an educational program self-efficacy measurement is an important tool (Mendhi, Premji, Cartmell, Newman, & Pope, 2020). Moreover, a positive relationship is reported between nursing students' knowledge and self-efficacy, both in turn enhancing skill in the

concerned area (Kim & Ahn, 2019b). Thus, the important variables knowledge, self-efficacy, and skill have been selected for this study.

To the best of researcher knowledge, no published literature was found on this topic in the context of Pakistan. While little published literature is available at the international level. Hence, this was the first study to determine the efficacy of the LSPPDM framework in the teaching and learning of neonatal resuscitation among undergraduate nursing student's knowledge, skill, and self-efficacy conducting at the College of Nursing, Allama Iqbal Medical College, Lahore, Pakistan. The study may provide a groundwork for future trials to investigate the retaining effect that is potentiating through an instructor directing with additional self-directing learning during education.

## **OBJECTIVES**

The study objective was to:

1. Compare the difference in knowledge among undergraduate nursing students learning of neonatal resuscitation through “Learn, See, Practice, Prove, Do, Maintain pedagogy” as compared to those who had learned through the traditional method.
2. Compare the difference in skill among undergraduate nursing students learning of neonatal resuscitation through “Learn, See, Practice, Prove, Do, Maintain pedagogy” as compared to those who had learned through the traditional method.
3. Compare the difference in self-efficacy among undergraduate nursing students learning of neonatal resuscitation through “Learn, See, Practice, Prove, Do, Maintain pedagogy” as compared to those who had learned through the traditional method.

## **HYPOTHESIS**

So, the hypothesis was generated as follows:

- a) Hypothesis  $H_0$  a: There is no difference in knowledge among undergraduate nursing students learning of neonatal resuscitation through LSPPDM Pedagogy as compared to those who had learned through the traditional method.
- b) Hypothesis  $H_0$  b: There is no difference in skill among undergraduate nursing students learning of neonatal resuscitation through LSPPDM Pedagogy as compared to those who had learned through the traditional method.
- c) Hypothesis  $H_0$  c: There is no difference in self-efficacy among undergraduate nursing students learning of neonatal resuscitation through LSPPDM Pedagogy as compared to those who had learned through the traditional method.

The alternative hypothesis was as follow:

- a) Hypothesis  $H_1$  a: There is a difference in knowledge among undergraduate nursing students learning of neonatal resuscitation through LSPPDM Pedagogy as compared to those who had learned through the traditional method.
- b) Hypothesis  $H_1$  b: There is a difference in skill among undergraduate nursing students learning of neonatal resuscitation through LSPPDM Pedagogy as compared to those who had learned through the traditional method.
- c) Hypothesis  $H_1$  c: There is a difference in self-efficacy among undergraduate nursing students learning of neonatal resuscitation through LSPPDM Pedagogy as compared to those who had learned through the traditional method.

## METHODS

### Study design and Setting

A Single-blind Randomized Control Trial adheres to the CONSORT guiding principle (Figure 1). The setting was the college of Nursing, Allama Iqbal Medical College, Lahore Pakistan, a specialized tertiary level educational center in the public sector that offers (2 & 4year) graduation in nursing and 1-year post basic specialization in various disciplines. The participants were 3<sup>rd</sup> and 4<sup>th</sup> professional B.sc nursing students (4 years) enrolled in the current year of 2020-2021.

**Duration of Study:** October 2020 to March 2021.

**Sample Size:** The sample size is calculated using the *OpenEpi* software (Kim & Ahn, 2019b) The calculated sample size is 24 (12 in each group). This sample size is small to perform the statistical test with good efficacy. So, 30 in each group will be taken, n = 60 (30 in each group). After adding a 20% dropout rate the final sample size will become 72 (36 in each group).

The sample size is calculated using the following information and formula;

$$n = \frac{(Z_{1-\beta} + Z_{1-\alpha/2})^2 + (\delta_1^2 + \delta_2^2)}{(\mu_1 - \mu_2)^2}$$

$\alpha$	5%
$1 - \alpha$	95%
$1 - \beta$	80%
$Z_{1 - \alpha/2}$	1.96
$Z_{1 - \beta/2}$	2.58
$\mu_1$ Expected mean in Skill in intervention Group (LSPDPM Pedagogy)	8.71(Kim & Ahn, 2019b).

$\mu_2$ Expected mean in Skill in Control (Traditional)	7.03(Kim & Ahn, 2019b).
$\delta_1$ Expected standard deviation in Skill Intervention (LSPDPM Pedagogy)	1.48(Kim & Ahn, 2019b).
$\delta_2$ Expected standard deviation in Skill in Control (Traditional)	1.33(Kim & Ahn, 2019b).
n Expected sample size in each group	24

Sample Size For Comparing Two Means			
Input Data			
Confidence Interval (2-sided)	95%		
Power	80%		
Ratio of sample size (Group 2/Group 1)	1		
	Group 1	Group 2	Difference*
Mean	8.71	7.03	1.68
Standard deviation	1.48	1.33	
Variance	2.1904	1.7689	
Sample size of Group 1	12		
Sample size of Group 2	12		
Total sample size	24		

**Sampling Technique:** Simple random sampling.

**Sample Selection:**

**Inclusion Criteria:**

The nursing students were included in the study who:

- Were currently enrolled in the Bachelor of Science in Nursing (4 years) 3<sup>rd</sup> and 4<sup>th</sup> Professional.
- Those willing to attend the full course of neonatal resuscitation.
- Had age 18-28 years.
- Those willing to give informed consent.

**Exclusion Criteria:**

The nursing students were excluded who:

- Were on leave from that period
- Had already received any educational training on neonatal resuscitation.
- Working as Nursing Assistants in Clinical Setting.



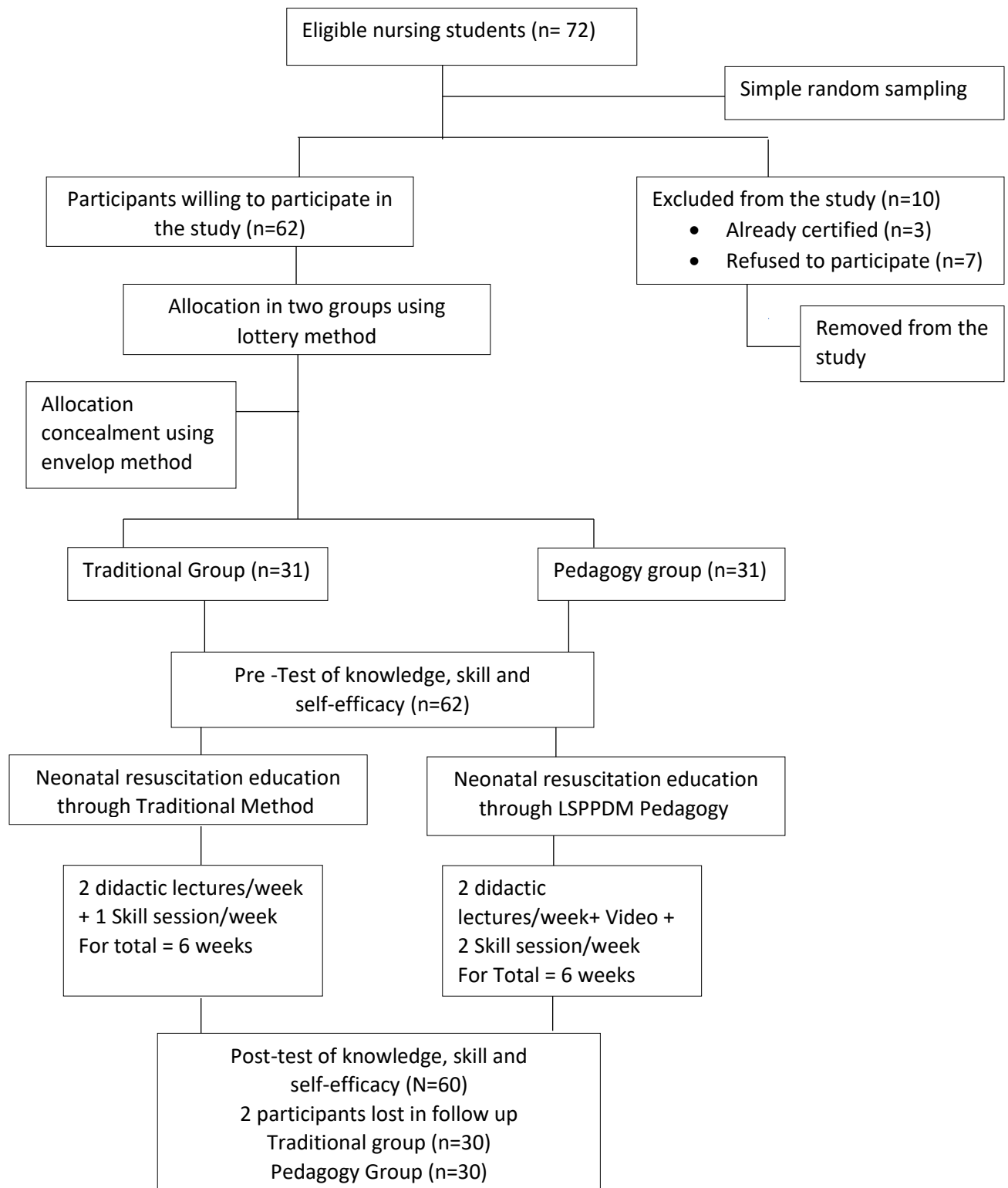


Figure 1. Consort Diagram

## **EQUIPMENTS:**

- Multimedia
- Low fidelity Neonatal Simulator
- Mannequins
- Hand out for theoretical content

## **EDUCATIONAL INTERVENTION**

A 6-week educational intervention was given to both groups.

### **1) Traditional method of neonatal resuscitation (Traditional Group)**

Traditional group was learned through the 2-step traditional method constituted of 2 didactic lectures/ week leading towards the second step of 1 skill session/week for 1 hour. The lecture content was the same for both groups and was prepared from the Textbook of Neonatal Resuscitation 7<sup>th</sup> edition of the American Association of Pediatrics (Nimbalkar et al., 2015). The lecture's content is based on foundations, Preparation, initial steps, positive pressure ventilation, endotracheal intubation, chest compression, medication, post-resuscitation care, and ethics in resuscitation. The students practice their skills under instructor supervision on the mannequins in groups of ratios 4-5 in each group errors were corrected immediately.

### **2) LSPPDM pedagogy method of neonatal resuscitation learning (Pedagogy Group)**

The pedagogy group was taught through the 6-steps LSPPDM pedagogy instituted in 2 lectures/week + video+ 2skill sessions/week for 1 hour. In the 1<sup>st</sup> step (learn) didactic lectures were given to the students leading to the second step (see), a video on neonatal resuscitation (<https://youtu.be/8yqP5m1jiPE>) was added. In the 3<sup>rd</sup>s step (practice) students practice their skill on a low fidelity simulator under instructor supervision in a ratio of 4-5 in each group. The errors were corrected on the spot. In the 4<sup>th</sup> step (prove) students proving their skill through the checklist

to enhance their learning and memory. In the 5<sup>th</sup> step (do) students observed neonatal resuscitation in real-life situations through the clinical rotation. Finally, the 6<sup>th</sup> step (maintain) was established through additional skill sessions/week for one hour in groups under self-directed learning.

## **DATA COLLECTION PROCEDURE**

### **Recruitment:**

The list of all nursing students in the 3<sup>rd</sup> and 4<sup>th</sup> professional was developed and the participants were recruited through simple random sampling. Initially, 62 participants (31 in each group) meet the inclusion criteria. Two participants were dropped in the follow-up for personal reasons one was not attending the full course of intervention and the other was absent on the days of evaluation. Thus, yielding a total of 60 participants (30 in each group).

### **Randomization and Allocation:**

The students allocated from each professional in traditional group and Pedagogy group through the Lottery method (Moon & Hyun, 2019). The difference in the professional year was overcome through equal distribution of each professional student in both groups. Allocation of participants was concealed using envelop method.

### **Blinding:**

Masking of data assessment was provided by assigning a code to each student. The facilitators, who assessed the student's skills, endure uninformed regarding the student's allocation status and sequence of the scenario in the pre-and post-data collection.

### **Study Variables:**

#### **Independent Variable:**

1. The Educational intervention is the independent variable was measured either through LSPPDM pedagogy, a six-step method, and a traditional 2 step method.

**Dependent Variable:** The dependent variable were:

1. Knowledge was measured through 17-item multiple-choice questions adopted from Knowledge Questionnaire (Mileder, Gressl, Urlesberger, & Raith, 2019).
2. Self-efficacy measured through a 23-item scale called the Self-Efficacy for Neonatal Resuscitation Instrument (Nyiringango, 2019).
3. Skill was measured through a 30 item checklist for measuring technical skills and the non-technical skills were measured through a 9-item checklist on a 5-point Likert scale in neonatal resuscitation (Rovamo, Mattila, Andersson, & Rosenberg, 2011).

#### **Methods for Collection of Data:**

Two facilitator evaluators were trained regarding the scoring of each scale in a two-hour workshop before data collection (Kirkpatrick, Cantrell, & Smeltzer, 2019). The data was collected at two points in time in the Simulation lab.

- 1<sup>st</sup>-time data was collected as a pre-test before the educational intervention.
- The 2<sup>nd</sup>-time data was collected after 6 weeks of educational intervention.

#### **Evaluation Environment:**

On the day of evaluation, students were divided into pairs. Each pair was performed on two scenarios in which one was acting as a leader and the other was the helper and were change their positions in the second scenario (Rubio-Gurung et al., 2014). The procedure was classified into assessment, preparation, initial newborn care, positive pressure ventilation, intubation, chest compressions medications, and reporting. All the simulation scenarios were performed in a simulated delivery room situation. Where two student facilitators were present. One was acting

like a pregnant lady while the other was performing the role of a delivery nurse and present the simulation scenario in a standardized fashion to each participant.

### **Simulation Scenarios:**

The same scenarios were used for the baseline and final assessments for both groups and were prepared from the Textbook of Neonatal Resuscitation 7<sup>th</sup> edition of the American Association of Pediatrics (Nimbalkar et al., 2015). Here's below the four simulation scenarios are as follow:

- a) A term pregnant lady having a history of gestational diabetes. After the birth of the baby, it was found that the baby is not breathing.
- b) An expecting mother having a history of placenta abruption. After birth during the initial evaluation, the baby was found gasping 1 minute after birth.
- c) A term pregnant woman presenting with a road traffic accident. After birth, it was found that the baby is not crying and having poor muscle tone.
- d) The baby has just been born. The baby was not breathing with a heart rate of less than 60 and appear cyanotic.

For the assessment of all steps of resuscitation skill, only newborn scenarios were added for the maximal exposure of student nurses to all the steps of resuscitation (Lee, Brown, Bender, Machan, & Overly, 2012). The student performance was assessed through a neonatal resuscitation checklist (Abusaad & Ebrahim, 2015). All the students gave a maximum time of 10 minutes to perform all the steps of resuscitation. However, students can finish it earlier than 10 minutes if all steps had been followed. A lab assistant was present there and make a video recording of all students' performance to validate the observations and scoring. For the maintenance of confidentiality, the videos were deleted after corroboration (Delgado et al., 2017).

**Data Collection Tools:** The following tools were used for data collection.

**1. Demographic Data Tool:**

The demographic form contains information regarding age, year of the profession, primary language, marital status, Division, previous exposure to neonatal resuscitation.

**2. Skill Assessment Tool:**

Neonatal resuscitation checklist: A 30 items checklist will be used. Each of the correct actions was graded as 1=yes and for wrong action 0=no. The non-technical skills were measured through a 9-item checklist on a 5-point Likert scale. The Cronbach's  $\alpha$  of 0.719 and the intra-rater reliability of 0.885 were reported for the neonatal resuscitation checklist (Rovamo et al., 2011).

**3. Knowledge Tool:**

Knowledge will be tested through 17 items of multiple-choice questions adopted from the Knowledge Questionnaire (Mileder et al., 2019).

**4. Self-efficacy Tool:**

Self-efficacy for Neonatal Resuscitation (SENR): The structure of the questionnaire was grounded on Bandura's (1977) Self-Efficacy Scale (SES). The SENR instrument is a 23-item scale that measured nursing students' perception of confidence in their capabilities in neonatal resuscitation. All SENR items were valued on a 10-point Likert scale. The SENR established good internal consistency with a Cronbach alpha value of 0.93 was reported (Nyiringango, 2019). The final score will be calculated by averaging the items from the subscales and thereafter averaging all 24 items for the total SENR score.

**DATA ANALYSIS PLAN**

The data were analyzed by using Statistical Package for the Social Sciences (SPSS) version 25. Mean and SD were given for age, knowledge score, skill score and self-efficacy score. Frequency and percentage were given for education, language, marital status, division in previous result, residential area and previous neonatal resuscitation exposure. Both groups tested for homogeneity in general and resuscitation specific characteristics using  $\chi^2$  -test, and t-test. Independent sample t test was used to compare the mean age, knowledge score, skill score and self-efficacy score between both groups. Paired t test was used to compare the pre and post education knowledge, skill and self-efficacy score in both groups. Chi square / Fisher's exact test was used to compare the education level, language, marital status, division in previous result, residential area and previous neonatal resuscitation exposure between both groups. A p-value  $\leq$  0.05 was taken as significant.

## **SAFETY CONSIDERATIONS**

No identified risks associated with this research study; though, a possible inconvenience may be the time it takes to complete the study. Further, it was expounded that the drive of this study is to evaluate the effectiveness of the new educational approach in improving clinical skills in neonatal resuscitation.

## **Expected outcomes of the study**

To our knowledge, it was the first experimental study to test the diverse strategies under the LSPPDM framework in the education of neonatal resuscitation among nursing students. The study may provide a groundwork for future trials to investigate the retaining effect with an emphasis on instructor directing with additionally self-directing learning during training.

The study may have a direct implication for nursing education in determining the effectiveness of a pedagogical framework in the teaching and learning of neonatal resuscitation

skills, especially in a resource-limited society. The study findings will help the organization to develop strategies for improving nursing education. This will reinforce its use in nursing education for the learning of other psychomotor skills for better acquisition of skill training. The study will add knowledge in nursing practice for the use of effective techniques of learning clinical skills leading towards professional development in nursing.

## **ETHICS**

The ethical approval was obtained from the institutional review board of the University of Lahore with reference number (IRB-UOL-FAHS/775/2020). Permission had taken from the Principal of the respective department. A meeting was arranged with all the eligible participants. In which the researcher will personally explain the study purpose, procedure, and benefits to the students. In the meeting, students were heartened to questions regarding the study. A risk/benefit assessment was performed to find out that the benefit of the study will be more than the risk of participation. The potential risk will be overwhelming with too much information and stress of performance while on evaluating skill. The plan for managing this risk was through providing information and reassurance to the students that the study's purpose was not be to judge their skill but rather to assess the current status of knowledge and identify future needs of education. Written informed Consent was obtained from each participant before conducting the study. All the participants were reassured that the study results will not affect their exam grades and strict confidentiality will be maintained. Demographic data and instrument response were coded to maintain confidentiality. Participants were instructed not to write their names on any document. The data was kept in lock and key in Laptop secure with Password.



### Dissemination of results and publication policy

The dissemination of results through publications and further contact was maintained with the participants and study setting for dissemination of study results.

Duration of the project

### RESEARCH WORK PLAN

Activities	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Synopsis Submission								
Departmental Review committee								
Board of Studies								
IRB approval								
Data Collection								
Data analysis								
Discussion								
Dissemination of Results								

### PROBLEMS ANTICIPATED

The do phase is here modified in our study due to the sensitivity of the topic and ethical considerations. Another possible explanation of this limitation was that the nursing students are never allowed to perform practice before license. In addition, we assessed the participants for

technical and non-technical skills soon after the education. The long-term retaining effect was beyond the scope of our study.

### **Project Management**

Mishal Liaqat conceive the idea, designed, collect the data, and wrote the project. Muhammad Hussain assisted in designing and gave critical inputs to the project. Muhammad Afzal critically evaluate the project. Maryam Altaf and Sadia Khan analyzed the data and gave critical inputs to the project. Syed Amir Gillani and Iram Liaqat assisted in the final approval of the study and make substantial contribution.

### **Funding**

The authors don't receive any funding/Grant for conducting this project.

### **Financing and insurance**

Not Applicable

## CONSENT FORM

**You are invited to participate in a research study conducted by Mishal Liaqat. The purpose of this research is to evaluate the “Effectiveness of Pedagogical Framework (Learn, See, Practice, Prove, Do, Maintain) On Nursing Students Knowledge, Self-Efficacy And, Skill in Neonatal Resuscitation”.**

### **Risks and Discomforts**

I believe there are no identified risks associated with this research study; though, a possible inconvenience may be the time it takes to complete the study. It will be expounded that the drive of this study is not to judge your competence in neonatal resuscitation but to evaluate, in general, nursing students' competency levels in Pakistan, and the effectiveness of the new educational approach in improving clinical skills in neonatal resuscitation.

### **Potential Benefits**

The impending benefits of participation in this study include increased knowledge, self-efficacy, and competency linked to neonatal resuscitation and potential benefits to future nurses.

### **Protection of Confidentiality**

Your identity will not be exposed to any publication after this study. All comments and responses are anonymous and will be treated confidentially. All responses will be kept in the laptop with a security code and reported in the aggregate form.

### **Voluntary Participation**

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time.

## CONSENT

**I have read this consent form and have been given the opportunity to ask questions.  
I give my consent to participate in this study.**

Participant's Signature \_\_\_\_\_

Signature of investigator \_\_\_\_\_

Email of Investigator: [mishee861@gmail.com](mailto:mishee861@gmail.com)

Contact No of Investigator: 03441481666

Date: \_\_\_\_\_

A copy of this consent form will be given to the participant.

## تحقیق میں شرکت کا دعوت نام

**عنوان:** آپ کو مثال لیاقت کے ذریعہ ہونے والے تحقیقی مطالعہ میں حصہ لینے کے لئے مدعو کیا گیا ہے۔ اس تحقیق کا مقصد نرسنگ طلباء کے علم، خود افادیت اور، نوزائیدہ بچاؤ میں مہارت" پر تدریسی فریم ورک کی تاثیر) سیکھیں، دیکھیں، عمل کریں، ثابت کریں

**نقصانات اور تکلیف:** اس تحقیق سے کسی قسم کے نقصان یا تکلیف کا اندیشہ نہیں

**ممکنہ فوائد:** آپکو ایک اہم تحقیق میں حصہ لینے کا موقع دیا جائے گا۔

**رازداری کا تحفظ:** ہم آپ کی معلومات کے تحفظ کے لیے وہ سب کچھ کریں گے جو ہم کر سکتے ہیں۔ تحقیق کے متعلق اکٹھی کی گئی تمام معلومات کو انتہائی خفیہ رکھا جائے گا۔ ڈیٹا انٹری اور تجزیے کے دوران آپ کے متعلق وہ تمام معلومات جن سے آپ کی شناخت ہو سکتی ہو کو ختم کر دیا جائے گا۔ اس تحقیق کے نتیجے میں شائع ہونے والی کسی بھی اشاعت میں آپ کی شناخت کو ظاہر نہیں کیا جائے گا۔

**رضا کارانہ شمولیت:** اس تحقیقی مطالعہ میں آپ کی شرکت رضا کارانہ ہے۔ آپ کو شرکت نہ کرنے اور کسی بھی وقت بغیر وجہ بتانے اس تحقیق میں شمولیت کو چھوڑنے کا اختیار ہے۔ شرکت نہ کرنے یا اس میں شمولیت کو چھوڑنے کی صورت میں آپ کے خلاف کوئی کاروائی نہیں کی جائے گی

درج ذیل معلومات تحقیق میں شامل ہونے والوں کے لیے پڑھیں اور ان کا جواب دیے گئے خانوں میں درج کریں

- ☐ میں نے معلوماتی شیٹ جو کہ تحقیق کی وضاحت کر رہی ہے کو سمجھ لیا ہے اور مجھے تحقیق کے سوالات کرنے کا موقع دیا گیا تھا۔
- ☐ میں سمجھ گیا/گی ہوں کہ میری شرکت رضا کارانہ ہے اور یہ کہ میں کسی بھی وقت اپنا ارادہ بدل سکتا/سکتی ہوں اور تحقیق سے دستبردار ہو سکتا/سکتی
- ☐ میں سمجھ گیا/گی ہوں کہ میرے جوابات خفیہ رکھے جائیں گے۔ میں محققین کو اس بات کی اجازت دیتا/دیتی ہوں کہ وہ جوابات کو جانچ سکیں۔
- ☐ میں سمجھ گیا/گی ہوں کہ معلومات میرے نام کے بجائے نمبر کی صورت میں محفوظ کی جائیں گی۔ تا کہ میں نتائج کی اشاعت کے دوران کسی بھی طرح سے شناخت نہ کیا جا سکوں۔ میں اس بات سے رضامند ہوں کہ جو معلومات مجھ سے لی جائیں گی وہ تحقیق میں استعمال ہوں گی۔
- ☐ میں اوپر بتائی گئی تحقیق میں شامل ہونے کے لیے رضامند ہوں اور محققین کو اپنا پتہ تبدیل ہونے کی صورت میں مطلع کروں گا/گی۔

**رضا مندی:** میں نے یہ اجازت نامہ پڑھا ہے اور مجھے سوال پوچھنے کا موقع دیا گیا ہے۔ میں اس سٹڈی میں شرکت کے راضی ہوں۔

شرکت کنندہ کا نام \_\_\_\_\_ دستخط \_\_\_\_\_ تاریخ \_\_\_\_\_

اجازت لینے والے کا نام \_\_\_\_\_ دستخط \_\_\_\_\_ تاریخ \_\_\_\_\_

اس اجازت نامہ کی ایک نقل آپکو دی جانی چاہیے۔

## REFERENCES

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