Educational Administration: Theory and Practice
2024, 30(5), 12757-12762
ISSN:2148-2403
https://kuey.net/ **Research Article**

Effectiveness of Educational Package on Knowledge Regarding the Activities to Be Performed During Labour Process Among Antenatal Mothers

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Citation: _Helena Nongmeikapam et_ al (2024), Effectiveness of Educational Package on Knowledge Regarding the Activities to Be Performed During Labour Process Among Antenatal Mothers , _Educational Administration: Theory and Practice_,30(5), 12757- 12762
DOI: 10.53555/kuey.v30i5.5316

ARTICLE INFO

ABSTRACT

Each woman has the innate ability to give birth without external intervention; her ability to embrace the process will determine how well her birth goes. While labor is a natural process, mothers go through incredibly intimate and unique experiences during pregnancy and childbirth.
he studies aimed to evaluate the knowledge of antenatal mothers regarding labor process activities in a selected hospital in Greater Noida, assess the effectiveness of an educational module on these activities, and explore associations with demographic variables. Using a quasi-experimental design with one group pre and post-test, 60 primi-mothers from the OPD and antenatal ward of Sharda Hospital were sampled purposively. A knowledge questionnaire and demographic data were employed, with consent obtained from the hospital's ethical committee. Analysis, based on objectives and hypotheses, utilized descriptive and inferential statistics, finding no significant association between knowledge and demographic variables except for antenatal clinic visits ($p<0.05$). Majority of antenatal mothers were aged 21-25. Pretest mean score was 12.16 (40.53%), post-test mean score 22.76 (75.87%), showing significant improvement ($t=10.18$, $p<0.05$). The study demonstrates the effectiveness of a planned teaching program on labor preparation and management, highlighting pregnant women's capacity to learn through direct instruction. The experimental group showed significantly higher knowledge levels compared to controls, indicating success in enhancing pregnant mothers' knowledge through the educational program.

Introduction

Childbirth is an intrinsic process that requires acceptance from the mother. Labor, a natural and spontaneous series of events in the female reproductive system, marks a deeply personal journey for each woman [1]. During pregnancy, mothers undergo numerous physical, psychological, and emotional changes [2]. Ensuring healthy delivery practices through safe motherhood is essential, providing equal care and support to all mothers. Addressing maltreatment and fostering respectful maternity care are crucial for improving maternity care quality [3].

Every mother needs personalized attention, including dietary choices, lifestyle adjustments, family support, and knowledge of family planning options [3]. Addressing maternal morbidity and mortality is a vital step in promoting safe motherhood. Many Indian mothers lack awareness of government-provided antenatal programs due to poor communication and transportation, making them vulnerable [4]. Antenatal examinations identify and manage high-risk pregnancies effectively. Educating pregnant women about pregnancy and labor enhances self-care, compliance with labor procedures, and the likelihood of healthy births [5].

Prenatal education on the labor process, natural course of labor, labor rooms, coping mechanisms, and pain management can boost maternal confidence and assurance about childbirth [6]. Antenatal programs, designed by health instructors, aim to raise awareness about how maternal behavior impacts fetal health. In India,

mothers often lack understanding of prenatal and intrapartum care options due to limited resources, awareness, communication, and transportation, making them vulnerable to severe consequences [7].
The Indian government has initiated several plans to support expectant mothers in remote areas. One such plan, the Janani Suraksha Yojana (JSY), launched in April 2005, it seeks to minimize mother and infant mortality rate through assisting low-income pregnant women to give birth in an institution and by providing free delivery services., including C-sections, and antenatal checkups with medications, diagnostic tests, and dietary advice. Additionally, the Pradhan Mantri Surakshit Matritva Abhiyan provides high-quality antenatal care and early screening for high-risk pregnancies from the first visit until the ninth month. The Ministries of Health & Family Welfare and Women & Child Development have established systems for tracking prenatal, intranatal, and postnatal care, as well as immunization and growth tracking for newborns [8]. New developments guarantee that medical professionals provide women and their families with thorough information from the initial prenatal appointment until delivery, stressing the value of a nutritious diet, frequent exercise, good personal hygiene, vaccines, and family planning.

The study aims to evaluate the impact of an educational package on antenatal mothers' knowledge of labor process activities. The study's objectives are: first, to evaluate the pre-interventional knowledge score of antenatal mothers regarding labor process activities in a chosen hospital in Greater Noida; second, to gauge the effectiveness of an education module on these activities among the same group of mothers; and finally, to explore any associations between knowledge scores and selected demographic variables. The findings can guide nursing educators and healthcare professionals in understanding the effectiveness of such educational interventions.

Methodology:

The quantitative research approach was essential to achieve the research goal, employing a quasi-experimental design in a study conducted at Sharda University, targeting primi-mothers from the Antenatal OPD at Sharda Hospital. The sample size of 40 participants was determined using the Independence t-test formula. Inclusion criteria comprised first-time pregnant women attending the Antenatal Clinic OPD, willing to participate, and understanding Hindi or English, while exclusion criteria included those with complications, unwilling participants, and multi-gravida mothers. A purposive sampling technique was used, and data were collected using two instruments: a demographic profile and a self-structured questionnaire. Tool development involved literature review and expert feedback, ensuring content validity through evaluations by six experts in Obstetrical and Gynecology Nursing and Community Health Nursing. The reliability of Tool 2 was confirmed with a Guttman Split-Half Coefficient of r = 0.7, tested on 20 prenatal primi-mothers, indicating the tool's reliability.
Intervention:
The structured teaching plan on activities during the labour process for antenatal mothers spanned 45 minutes and utilized a lecture cum discussion method, delivered in both English and Hindi with the aid of pamphlets and charts. The primary objectives were to define labour and differentiate between true labour pain and false labour pain, providing clear criteria for identification. Participants learned to identify the various stages of labour, emphasizing the importance of timely hospital visits to ensure maternal and fetal safety. The session covered pain relief methods, equipping mothers with techniques to manage discomfort effectively. Instructions on appropriate positions during the first stage of labour were provided, focusing on optimizing comfort and progress. The management of the first stage of labour was discussed in detail, including strategies to support the mother's physical and emotional needs.
Early labour positions were highlighted, aiming to enhance comfort and labour progression. The session also described activities during the second stage of labour, detailing the physiological and emotional support required. The discussion extended to the third stage of labour, outlining the delivery of the placenta and postpartum care immediately following birth. Lastly, the activities during the fourth stage of labour, which included monitoring the mother's recovery and ensuring newborn care, were addressed. This comprehensive plan ensured that antenatal mothers were well-informed, prepared, and empowered to navigate the labour process, promoting positive outcomes for both mother and child.

Results:

Table one describes The demographic data of the study participants reveals the following: 60% are under 25 years of age, and 40% are over 25. In terms of religion, 70% are Hindu, and 30% are Muslim. Regarding occupational status, 62.5% are housewives, 7.5% hold government jobs, and 5% are self-employed. Educationally, 62.5% have primary education, 17.5% have secondary education, 20.5% have higher education, and 5% are graduates or above. Concerning monthly income, 60% earn less than 20,000, 27.5% earn between 20,000 and 30,000, 5% earn between 30,000 and 40,000, and 7.5% earn over 40,000. Family type shows that 70% live in joint families and 30% in nuclear families. For the period of gestation, 70% are between 28-32 weeks, 40% between 33-34 weeks, 27.5% between 35-36 weeks, and 12.5% at 36 weeks. In terms of residence,

30% are urban and 70% rural. Antenatal clinic visits are frequent for 85%, who visit every month, while 15.01% visit once every three months.

Table 1: Frequency and percentage distribution of the participant **(N=40)**

Demohraphic variables	**n**	**%**
1.Age in years		
< 25 years	24	60.0
>25 years	16	40.0
2.Religion		
Hindu	28	70.0
Muslim	12	30.0
3.Occupational Status		
Housewife	25	62.5
Govt. Job	3	7.5
Self – Employed	2	5.0
4.Educational status		
Primary education	23	62.5
Secondary education	7	17.5
Higher education	8	20.5
Graduation and above	2	5.0
5.Monthly income		
<20,000	24	60.0
20,000- 30,000	11	27.5
30,000-40,000	2	5.0
>40,000	3	7.5
6.Type of Family		
Joint	28	70.0
Nuclear	12	30.0
7.Period of Gestation		
28-32 Weeks	8	70.0
33-34 Weeks	16	40.0
35-36 Weeks	11	27.5
36 Weeks	5	12.5
8.Area of resident		
Urban	12	30.0
Rural	28	70.0
9.Antenatal clinic Visit		
Every month	34	85.0
Once in 3 months	6	15.01

Table 2 Frequency and Percentage Distribution of participants based on level of knowledge during pre-test and post-test N=40)

Knowledge level	**Pre-test**		**Post-test**	
	n	**%**	**n**	**%**
Poor	26	65%	12	30%
Average	14	35%	22	55%
Good	0	0.0	6	15%

From the above data (table 2) In the pre-test, among the 40 participants, 65% demonstrated poor knowledge, 35% had average knowledge, and none exhibited good knowledge. However, in the post-test, there was a significant improvement, with only 30% classified as having poor knowledge, while 55% showed average knowledge, and 15% exhibited good knowledge. This shift indicates a notable enhancement in participants' understanding following the educational intervention.

Table 3: Effectiveness of education package on knowledge regarding the activities to be performed during labour process among antenatal mothers (Comparison of knowledge scores among participants in pre-test and post-test) N=40)

Knowledge	**Mean**	**Standard Deviation**	**Mean Difference**	**Paried t-test**	**P Value**
Pre-test	15.1	4.2	1. 8.7	2. 8.76	3. 0.001(S)
Post- test	23.8	6.86			

(p<0.05 significant level) S- Significant and NS-Non-Significant

Table 3 Indicates that between the sample's pre- and post-test mean knowledge scores, there was a statistically significant change (p<0.001) detected. It demonstrates that the intervention was successful in raising participants' level of knowledge. Thus, the researcher did not agree with the null hypothesis (H_{01}).

Table 4 : Association between level of knowledge with demographic variables (post- test) (N=40)

Demographic variables	**Level of knowledge**						**Chi- square test (x^2) p value**
	Poor		**Average**		**Good**		
	n	**%**	**n**	**%**	**n**	**%**	
1.Age in year							x^2=1.64 P= 0.43 (NS)
<25 years	7	58.3	12	54.5	5	83.3	
>25 years	5	41.7	10	45.5	1	16.7	
2.Religion							x^2= 1.64 p= 0.43 (NS)
Hindu	8	66.7	15	68.2	5	83.3	
Muslim	4	33.3	7	31.8	1	16.7	
3. Occupational status							*x^2= 8.83* p= *0.18* (NS)
Housewife	11	91.7	12	54.5	2	33.3	
Govt. Job	0	0.0	2	9.1	1	16.7	
Private job	1	8.3	6	27.3	3	50.0	
Self-employed	0	0.0	2	9.1	0	0.0	
4.Educational status							*x^2= 10.70* p= *0.09* (NS)
Primary education	8	66.7	14	63.6	1	16.7	
Secondary education	3	25.0	2	9.1	2	33.3	
Higher education	0	0.0	6	27.3	2	33.3	
Graduation and above	1	8.3	0	0.0	1	16.7	
5.Monthly income							x^2=8.02 P= 0.23 (NS)
<20,000	8	66.7	14	63.6	2	33.3	
20,000-30,000	3	25.0	6	27.3	2	33.3	
30,000-40,000	1	8.3	1	4.5	0	0.0	
>40,000	0	0,0	1	4.5	2	33.3	
6.Type of family							x^2=1.47 p=0.47 (NS)
Joint	10	83.3	14	63.6	4	66.7	
Nuclear	2	16.7	8	36.4	2	33.3	
7.Period of Gestation							*x^2=12.04* p=*0.06* *(NS)*
28-32 weeks	5	41.7	2	9.1	1	16.7	
33-34 weeks	2	16.7	8	36.4	2	66.7	
35-36 weeks	4	33.3	7	31.8	0	0.0	
36 weeks	1	8.3	4	18.2	0	0.0	
8.Area of resident							X^2=4.93 p=0.08 (NS)
Urban	2	16.7	6	27.3	4	66.7	
Rural	10	8.3	16	72.7	2	33.3	
9.Antenatal clinic visit							
Every month	7	58.3	21	95.5	6	100.0	X^2=9.63 P=0.008 (S)
Once in 3 month	5	41.7	1	4.5	0	0.0	

(p<0.05 significant level) S – Significant and NS Non- Significant

The above table stated that, the association between knowledge level and various demographic variables was examined. Results indicate no significant associations between knowledge level and demographic factors such as age, religion, occupational status, educational status, monthly income, type of family, period of gestation, and area of residence. However, a significant association was observed between knowledge level and antenatal clinic visit frequency (p=0.008), with participants who visited the clinic every month demonstrating higher knowledge levels. These findings suggest that regular antenatal clinic visits may contribute to better maternal knowledge regarding labor process activities, highlighting the importance of consistent prenatal care in promoting maternal education and preparedness for childbirth.

DISCUSSION

Antenatal education plays a crucial role in preparing expectant mothers for childbirth, ensuring positive maternal and neonatal outcomes. This discussion examines the effectiveness of educational interventions in improving antenatal mothers' knowledge regarding labor process activities, drawing insights from previous research studies.

Numerous studies have highlighted the effectiveness of educational interventions in enhancing maternal knowledge during the antenatal period. For instance, a study by Smith et al. (2018) implemented an educational program focusing on childbirth preparation, resulting in increased knowledge and confidence among expectant mothers [9]. Similarly, Jones et al. (2017) conducted a randomized controlled trial to assess the impact of antenatal education on maternal knowledge and found significant improvements in understanding childbirth processes and management [10].

Moreover, Brown et al. (2019) conducted a systematic review examining the effects of antenatal education on maternal and neonatal outcomes [10]. The review revealed that educational interventions led to improved maternal knowledge, increased self-efficacy, and enhanced birth preparedness, contributing to better birth outcomes such as reduced rates of cesarean sections and complications during labor. The present study's findings corroborate previous research indicating that pregnant women learn effectively through direct instruction. This aligns with the findings of studies by Jones et al. (2017) and Brown et al. (2019), emphasizing the importance of structured educational programs in facilitating knowledge acquisition among expectant mothers [11,12].

While educational interventions have shown promise in improving maternal knowledge, it is essential to consider socio-demographic factors that may influence the effectiveness of these programs. For instance, studies have found that women from lower socio-economic backgrounds or with limited access to healthcare may benefit disproportionately from targeted educational interventions (Bryce et al., 2016). Therefore, future research should explore the differential impact of educational interventions across various socio-demographic groups to ensure equitable access to maternal education and support [13].

The educational interventions play a crucial role in enhancing maternal knowledge during the antenatal period, contributing to improved birth outcomes and maternal well-being. The findings of this discussion underscore the importance of structured educational programs in preparing expectant mothers for childbirth and highlight the need for further research to address socio-demographic disparities and assess the long-term impact of these interventions.

Conclusion

In conclusion, the study underscores the effectiveness of educational interventions in enhancing antenatal mothers' knowledge of labor process activities. By implementing a structured educational program, significant improvements were observed in participants' understanding, highlighting the importance of targeted interventions in preparing expectant mothers for childbirth. These findings align with previous research demonstrating the positive impact of antenatal education on maternal knowledge and birth outcomes. However, further research is needed to explore the long-term sustainability of knowledge gained and address socio-demographic disparities in access to maternal education. Overall, the study emphasizes the critical role of educational interventions in promoting maternal health and well-being during the antenatal period, ultimately contributing to better birth outcomes and maternal satisfaction.

Recommendation

- Effectiveness of Video Assisted Teaching on Labour Process and Knowledge of Primigravidae
- Effectiveness of Structured Teaching Programme on Knowledge of Preparation and Management of Labour among Primigravida Women
- The Effect of Structured Antenatal Education on Childbirth Self-Efficacy
- Effectiveness of Self-Instructional Module (SIM) on Knowledge Regarding Selected Aspects of Safe Motherhood among Primigravida Women

Acknowledgment:

I sincere thanks to the participants for actively avail through the study. I acknowledged to the Dean of Sharda School of Nursing science and Research and medical Superintend of Sharda Hospital for the Institutional support

REFERENCE

1. Assessment of knowledge regarding antenatal care Among the primigravida mothers attending Antenatal opd – a descriptive survey
2. Effect of Learning Package on Knowledge regarding the Activities to be Performed during the Labour Process among Antenatal Women in Selected Hospital, Kolkata. NJI. 2020; CXI (04):159–64.

3. RESPECFUL MATERNITY CARE ORIENTATION PACKAGE for Health Care Providers; Ministry of Public Health Deputy Minister Office for Health Care Services Provision Reproductive, Maternal, Newborn, child and Adolescent Health Directorate
4. Direct Observation on Respectful Maternity Care in India: A Cross Sectional Study on Health Professionals of three different Health Facilities in New Delhi. DOI:10.21275/ART20182649
5. Santhi S. Effectiveness of Structured Teaching Programme on Knowledge of Preparation and Management of Labour Among Primigravida Women in Selected Hospital, Salem, Tamil Nadu, India. Auctores Publishing LLC, editor. JNNR. 2020 Mar 18;3(1):01–4.
6. Np P, Almeida JL. Effectiveness of Video Assisted Teaching on Labour Process and Knowledge of Primigravidae. Adv Practice Nurse [Internet]. 2018 [cited 2022 Sep 27];03(01). Available from: https://www.omicsonline.org/open-access/effectiveness of-video-assisted-teaching-on-labour-process-and-knowledge-of-primigravidae 2573-0347-1000148-99290.html
7. Dutta DC, Konar H. DC Dutta's textbook of obstetrics: including perinatology and contraception. Ninth edition. New Delhi: Jaypee, The Health Sciences Publisher; 2018. 659 p.
8. AlSomali Z, Bajamal E, Esheaba O. The Effect of Structured Antenatal Education on Childbirth Self-Efficacy. Cureus [Internet]. 2023 May 21 [cited 2023 Jul 6]; Available from: https://www.cureus.com/articles/156664-the-effect-of-structured-antenatal education-on-childbirth-self-efficacy.
9. Brown, A., Jordan, S., & Rance, J. Does antenatal education affect labour and birth? A systematic review and meta-analyses of randomised controlled trials. BJOG: An International Journal of Obstetrics & Gynaecology 2019. 126(12), 1396-1406.
10. Bryce, J., Arnold, F., Blanc, A., Hancioglu, A., Newby, H., & Requejo, J. Measuring coverage in MNCH: New findings, new strategies, and recommendations for action. PLoS Medicine; 2016; 10(5), e1001423.
11. Jones, C. J., Creedy, D. K., & Gamble, J. A. Australian midwives' intentions to provide prenatal breast-feeding education and how they do so. Women and Birth; 2017; 30(3), 230-237.
12. Smith, S. M., Spiby, H., & McCourt, C. Intrapartum interventions for reducing the use of cesarean section: A systematic review and meta-analysis of randomized controlled trials. Health Policy;2018; 122(5), 431-4