

Research Article

“ASSESSMENT OF THE LEVEL OF AWARENESS AND ACCEPTANCE OF USE OF BUSCOPAN IN THE MANAGEMENT OF LABOUR AMONG EXPECTANT MOTHERS THOSE WHO ARE ATTENDING GYNEC OPD IN SELECTED HOSPITAL, “A CROSS-SECTIONAL SURVEY.”

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ABSTRACT

The awareness and acceptance regarding the use of Buscopan in the management of labour among expectant mothers are important aspects in promoting safe and effective labour practices. Informing mothers about the use and benefits of Buscopan can improve their knowledge and acceptance during labour. Therefore, the researcher adopted a quantitative, non-experimental, cross-sectional survey design to assess the level of awareness and acceptance among expectant mothers. This study was conducted among 150 expectant mothers attending gynecology OPD in selected hospitals of Kanpur, Uttar Pradesh.

The findings of the study revealed that the majority of expectant mothers had inadequate awareness, while the level of acceptance was moderate to adequate. A positive relationship was observed between awareness and acceptance. The Chi-square analysis showed that for awareness, age ($\chi^2 = 5.21$) and occupation ($\chi^2 = 4.96$) were not significant, whereas education ($\chi^2 = 12.45$), family income ($\chi^2 = 11.22$), and area of residence ($\chi^2 = 8.14$) were statistically significant.

For acceptance, age ($\chi^2 = 7.32$), education ($\chi^2 = 10.18$), occupation ($\chi^2 = 6.87$), family income ($\chi^2 = 9.76$), and area of residence ($\chi^2 = 6.55$) was found to be statistically significant at

the 0.05 level of significance. Hence, the null hypothesis (H_0) was rejected and research

hypothesis (H_1) was accepted for significant variables, while H_0 was accepted for non-significant variables.

KEYWORDS-

Cross sectional survey, Awareness, Acceptance, Buscopan, Expectant Mothers, Labour Management, Demographic Variables, Chi- square.

INTRODUCTION

The term "labor" describes the mental or physical work that people do to produce goods and

service, usually in exchange for money. The workforce's contribution to economic activity is

represented by labour, which is a primary factor of production along with land and capital.

The World Health organization (WHO) defines normal labour as one that is low risk throughout, spontaneous in onset with the fetus presenting by the vertex, and culminates in the mother and infant being in good condition after birth. A human pregnancy is thought to last roughly 40 weeks, with labor typically occurring between 37 and 42 weeks of gestation. On the other hand, a labor in which there are no additional risk factors and the fetus presents breech should also be

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regarded as normal. Moreover, every definition of labor seems to be solely physiological and does not take into account a woman's psychological health.¹

According to pharmacokinetic studies, Buscopan has low systemic availability after oral administration due to substantial first-pass metabolism in the liver, which restricts bloodstream absorption prior to renal excretion. Buscopan's high affinity for muscarinic and nicotinic receptors allows it to produce therapeutic activity even at low plasma concentrations. When necessary, an intramuscular injection of 20 mg is the recommended dosage for obstetrics. It is not recommended to administer it intravenously. The dosage rarely needs to be repeated, with administration intervals typically scheduled to address a critical event or as a supplement to regular labor, in which case it may be repeated after six hours.²

Buscopan can help soften smooth muscles so that the cervix can dilate and efface more easily during the first stage of labor. This could shorten the duration of this phase and lessen the woman's pain and discomfort while she is indoors. Additionally, Buscopan may play a significant role in the crucial management of uterine inversion. This dual action of reducing pain and optimizing labor progress highlights the potential benefits of Buscopan in improving the experience and outcomes of childbirth for expectant mothers. By preventing the transmission of cholinergic signals, Buscopan lessens cervical spasms, which may enable quick internal adjustments to more successfully correct the inversion. By lowering the risk of catastrophic bleeding and discomfort, the early success of these maneuvers will support resuscitation, especially cardiovascular support. Important tasks that must be completed during the first and second stages of labor include cervical dilation and effacement: By optimizing these, the total length of labor can be greatly shortened, lowering the risks to both the mother and the fetus of prolonged labor, including uterine rupture, postpartum hemorrhage, and maternal morbidity and

mortality. Additionally, it may lessen the need for additional interventions like assisted instrumental vaginal or cesarean delivery when labor progress is deemed unfavorable, otherwise known as oxytocin augmentation without assistance. Lastly, the controlled and gradual descent of the presenting part during the second stage made possible by the use of Buscopan may help reduce the risk of intracranial hemorrhage, which can happen when the fetal head is forcefully and quickly expelled during a precipitous delivery, as well as maternal complications like lacerations and perineal injuries.³

NEED OF THE STUDY

Buscopan (Hyoscine-N-butyl bromide) is considered an essential adjuvant therapy in the management of labor for primiparous women (first-time mothers) due to its antispasmodic properties, which helps the smooth muscles of the cervix relax, hastening labor.⁴

Buscopan can shorten labour by about one to two hours, according to research, though different studies have different findings. Buscopan suppositories shortened the length of active labour by encouraging cervical dilatation, according to a study published in the Journal of Obstetrics and Gynecology. Some research, however, contends that there is insufficient data to justify buscopan widespread use in labour management. Buscopan may shorten labour duration, but the quality of the evidence is poor, and more thorough trials are required, according to a Cochrane review.⁵

A study conducted in Nigeria to evaluate pregnant mothers' awareness and acceptance of Buscopan revealed a moderate level of awareness but a high potential for acceptance, particularly with guidance from healthcare providers.⁶

India has a sizable maternal population, and despite advancements made or possible by initiatives like the National Health Mission, many women are still ignorant of their options for labor management. Fear, anxiety and poor cooperation during childbirth can result from

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ignorance of drugs used during labor, such as Buscopan.⁷

Decisions about childbirth are frequently influenced by family members, cultural beliefs, and customs rather than by evidence-based medical knowledge in many parts of India, particularly in rural and semi-urban areas. By measuring awareness, misconceptions and knowledge gaps about the use of antispasmodic medications, such as Buscopan, to shorten labor duration can be found.⁸

REVIEW OF LITERATURE:

Verma et al. (2024) conducted a prospective study on the awareness and utilization of Buscopan in labour management. The study reported that Buscopan was commonly used during the active phase of labour and was associated with faster cervical dilatation and shorter first-stage labour. It was generally well tolerated, with only mild side effects such as tachycardia and dry mouth, while neonatal outcomes were mostly normal.

However, the study identified significant gaps in knowledge and awareness. Many healthcare providers had only partial understanding of Buscopan mechanism, dosage, timing, contraindications, and side effects. Maternal awareness was also low, indicating a need for better patient education, communication, and evidence-based training for healthcare professionals.⁹

OBJECTIVES OF THE STUDY-

1. To assess the level of awareness regarding the use of Buscopan in the management of labour among expectant mothers.
2. To determine the acceptance level of buscopan use for labour management among expectant mothers.
3. To determine the association between the level of awareness and selected demographic variables.

4. To determine the association between the level of acceptance and selected demographic variables.

To correlate the level of awareness and acceptance of use of buscopan in the management of labour among expectant mothers.

HYPOTHESIS

A hypothesis is the predicted relationship between two or more variables in a research study.

1. **H₁**- There is a significant awareness regarding the use of Buscopan among expectant mothers.
2. **H₂**- There is a significant acceptance regarding the use of Buscopan among expectant mothers.
3. **H₃**- There is a significant association between awareness and selected demographics variables.
4. **H₄**- There is significant association between acceptance and selected demographics variables.
5. **H₅**- There is a significant correlation between awareness and acceptance regarding the use of Buscopan.
6. **H₀₁**-There is no significant level of awareness regarding the use of buscopan among expectant mothers.
7. **H₀₂**-There is no significant level of acceptance regarding the use of buscopan among expectant mothers.
8. **H₀₃**-There is no significant association between awareness and selected demographics variables.
9. **H₀₄**-There is no significant association between acceptance

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and selected demographics variables.

10. **H₀₅**-There is no significant correlation between awareness and acceptance regarding the use of buscopan.

METHOD AND MATERIAL:

RESEARCH APPROACH-

The Research approach used for the present study was **Quantitative research approach**.

RESEARCH DESIGN-

The research design used in this study was descriptive cross sectional survey design.

VARIABLES-

Socio-demographic Variables: In this present study demographic variables are age, education, occupation, income(monthly), type of family, area of incidence, source of information about labor, parity, gravida, gestational age, history of previous delivery, antenatal visits attended.

POPULATION-

In this study the population was expectant mothers those who are attending gynec OPD in selected hospital, Kanpur.

TARGET POPULATION-

The target population was expectant mothers those who are attending gynec OPD in selected hospital.

ACCESSIBLE POPULATION-

The accessible population includes all expectant mothers those who are attending gynec OPD. Shyam children and maternity Centre, MaaDurga hospital, Rama hospital and research Centre.

SAMPLE-

The sample for this study was expectant mother those are attending gynec OPD in selected hospital Shyam children and

maternity centre, MaaDurga hospital, Rama hospital and research centre. Kanpur.

SAMPLE SIZE-

The sample size of this study was 150 expectant mothers those who are attending gynec OPD in selected hospital Kanpur.

SAMPLING TECHNIQUE-

In this study, **Non-probability Convenience Sampling Technique** was used to select the sample.

INCLUSION CRITERIA-

This study includes –

The expectant mothers those who are attending gynecopd in selected hospital of Kanpur come under the inclusion criteria.

EXCLUSION CRITERIA

This study excludes-

The expectant mothers who are not willing to participate in the study come under the exclusion criteria.

ETHICAL CONSIDERATION:

Ethical permission was obtained from the ethical committee of faculty of nursing, Rama University. The participants were explained the nature and purpose of the study. They were assured about the anonymity and confidentiality of the data obtained from them. Written informed consent was obtained from the participants.

METHODS OF DATA COLLECTION:

The tool used to collect the data was demographic, structure awareness questionnaire was used to assess the level of awareness acceptance of use of buscopan in the management of labor among expectant mothers those who are attending gynecopd in selected hospital, Kanpur.

DEVELOPMENT AND DESCRIPTION OF TOOLS USED IN THE STUDY

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The tool consists of three sections: -

SECTION-A: Socio-demographic variables.

SECTION-B: It is consisted of buscopan related to expectant mothers. Questionnaire included 20 structured awareness question.

SECTION-C: It is consisted of buscopan related to expectant mothers. Question included 10 acceptances.

RESULTS AND FINDINGS:

Section A: Frequency and percentage wise distribution of demographic variables. The major findings of the study were as follow: Socio-demographic and Obstetric Characteristics of Expectant Mothers

The findings revealed that the majority of 45 (30%) expectant mothers were in the age group of 26–30 years. Regarding educational status, 62 (41%) expectant mothers had primary education, while 68 (45.3%) were housewives. With respect to monthly family income, the majority 75 (50%) had a monthly family income of below ₹10,000. In terms of type of family, 66 (44%) expectant mothers belonged to joint families, whereas 85 (56.6%) belonged to rural areas. The majority 64 (42.6%) reported family as their main source of information regarding labour.

Regarding obstetric characteristics, the majority 68 (45.33%) expectant mothers had one child (Para 1), while 76 (50.66%) were multigravida. The majority 83 (55.33%) expectant mothers were in the 33–36 weeks of gestational age. Further, 79 (52.66%) had a history of normal delivery, and 61 (40.66%) had attended three antenatal visits.

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SECTION B:

Correlation between level of awareness and level of acceptance:

(n=150)

S. No	Variables	Mean	Standard derivation	Correlation(r)	Level of significance
1.	Level of awareness	4.96	3.195	-0.248	0.05 (significant)
2.	Level of acceptance	36.38	4.725		

Table :1

SECTION C:

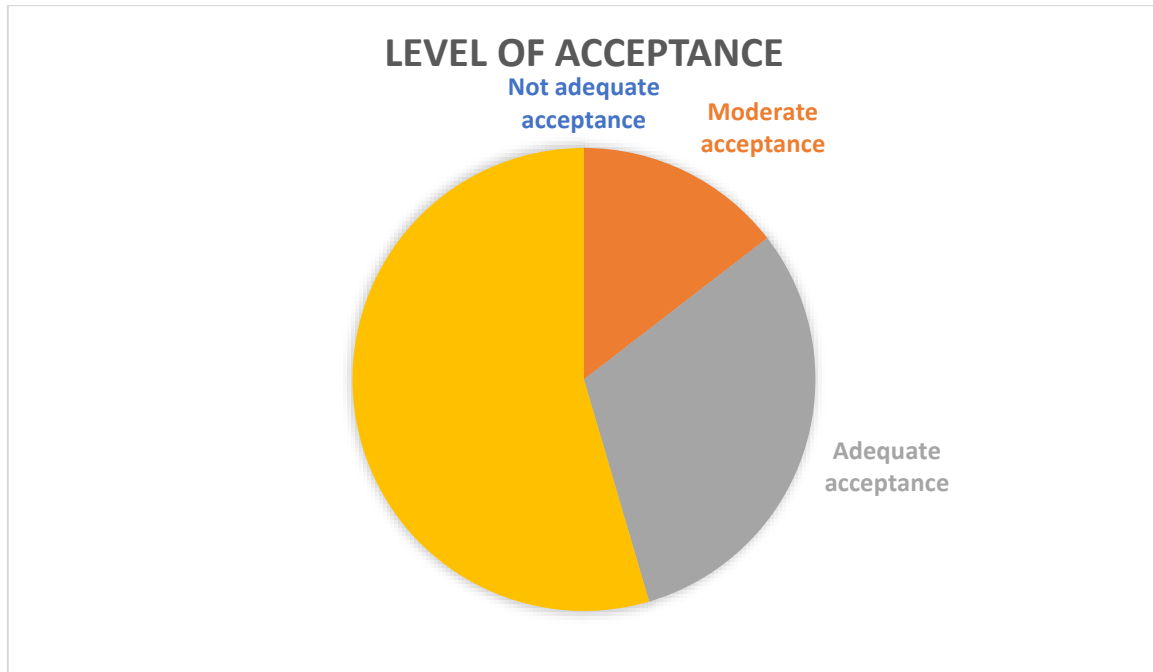
Frequency and percentage wise distribution of expectant mothers according to their level of acceptance:

(n=150)

s. no	Level of acceptance	Frequency	percentage
1.	Not adequate acceptance	0	0%
2.	Moderate acceptance	48	32%
3.	Adequate acceptance	102	68%

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Table :2



Section-D

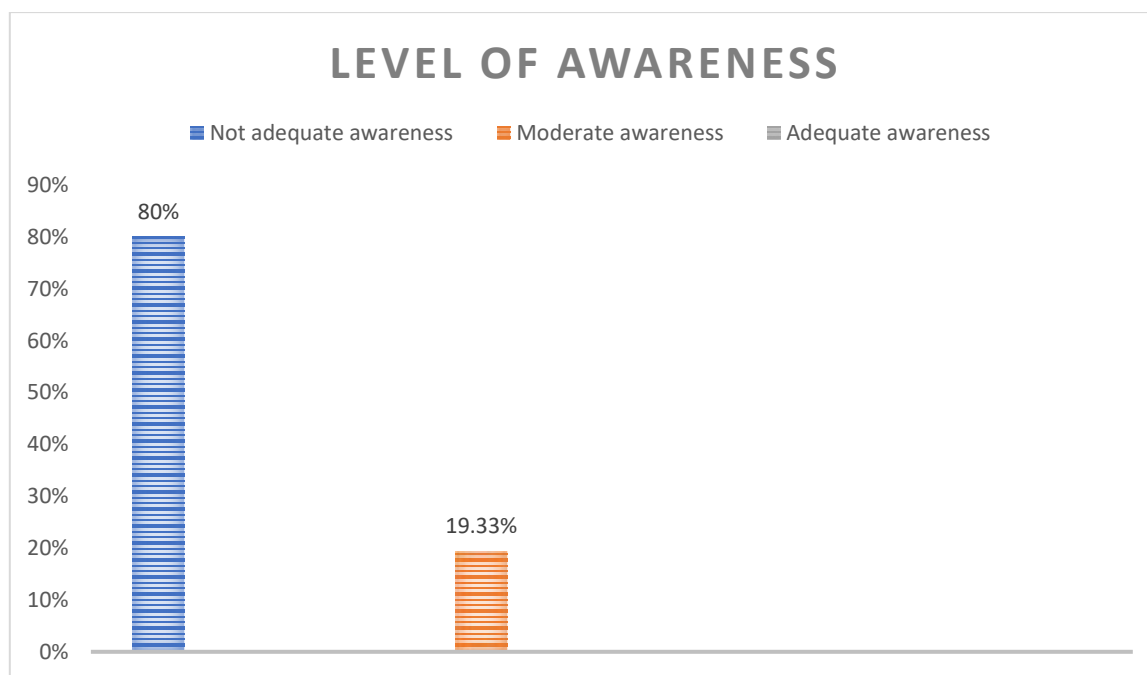
Frequency and percentage wise distribution of expectant mothers according to their level of awareness:

(n=150)			
S.No.	Level of awareness	Frequency	Percentage
1.	Not adequate awareness	120	80%

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2.	Moderate awareness	29	19.33%
3.	Adequate awareness	1	0.66%

Table: 3



SectionE:

Associationbetweenthelevelofawareness core of demographic variables with selected expectant mothers.

The result shows that the association of socio demographics variables with the level of awareness regarding the use of buscopan among expectant mothers. It is revealed that there is a significant association with variables such as education, family income and area of incidence, whereas there is no significant

association with variables such as age, occupation, type of family, source of information, parity, gravida, gestational age, history of previous delivery and antenatal visit attendant.

Here calculated value of chi square was greater than the table value at 0.05 level of significance. There was significant association between selected variables with the level of awareness. **So, here Null hypothesis (H₀) was rejected and**

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positive hypothesis (H₁) was accepted for significant variables.

DISCUSSION:

The present study was conducted to assess the level of awareness and acceptance regarding the use of Buscopan in the management of labour among 150 expectant mothers attending the gynecology OPD of selected hospitals in Kanpur, Uttar Pradesh. A structured questionnaire was used for data collection, and a non-experimental cross-sectional survey design was adopted.

The findings revealed that the majority of expectant mothers, 98 (65.33%), had inadequate awareness regarding the use of Buscopan in labour management, while 32 (21.33%) had moderate awareness and only 20 (13.33%) had adequate awareness. These findings indicate a considerable gap in knowledge among expectant mothers and highlight the need for appropriate health education and counselling regarding the use of Buscopan during labour.

Regarding acceptance, the findings showed that 102 (68%) expectant mothers had adequate acceptance, while 48 (32%) had moderate acceptance towards the use of Buscopan. None of the participants demonstrated inadequate acceptance. This suggests that although awareness regarding Buscopan was limited, the overall acceptance of its use among expectant mothers was comparatively favorable.

The study further revealed a significant association between awareness and selected socio-demographic variables, particularly education, family income and area of residence, whereas age and occupation were not significantly associated with awareness at the 0.05 level of significance. This indicates that socio-demographic factors may influence the level of awareness regarding Buscopan and its use in labour management.

With regard to acceptance, the findings indicated an association with selected socio-demographic variables, including age, education, occupation, family income and area of residence. These findings emphasize the importance of considering socio-demographic characteristics while planning educational interventions and counselling programs for expectant mothers.

Overall, the study highlights that awareness regarding Buscopan among expectant mothers was inadequate, whereas acceptance was relatively high. Therefore, nurses and other healthcare professionals should provide appropriate, evidence-based information and counselling to expectant mothers to improve their understanding of Buscopan, its purpose, benefits, and appropriate use in labour management. Such educational interventions may contribute to informed decision-making and better acceptance of labour-management practices.

LIMITATION:

1. The study is confined to expectant mothers attending Gynecology OPD of a selected hospital only, hence the findings cannot be generalized to the entire population.
2. The study is limited to a small sample size, which may not represent the whole population.
3. The study includes only mothers attending Gynae OPD and excludes those who are not attending OPD, admitted in labour room, or taking treatment from other hospitals.

RECOMMENDATION:

1. A similar study can be conducted on a larger sample for wider generalization of findings.
2. A comparative study can be conducted to assess the awareness and acceptance of Buscopan between primigravida and multigravida mothers.

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3. A study can be conducted to assess the actual effectiveness and safety of Buscopan on duration of labour and fetomaternal outcome.
4. The nursing staff and midwives should be given in-service education regarding use of Buscopan in labour management so that they can educate the expectant mothers.

CONCLUSION:

The finding of the study revealed that the majority of expectant mothers had inadequate awareness, while the level of acceptance and moderate to adequate. A no significant correlation was found between awareness and acceptance. The study also showed that selected demographics variables such as education, family income, area of incidence had a significant association with awareness and acceptance.

FINANCIAL SUPPORT AND SPONSORSHIP-
Nil

CONFLICTS OF INTEREST-
There is no conflict of interest.

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