Results

The results of the present study are presented in 18 tables and 7 figures. Results are categorized into five parts which come in accordance with the aim of the study. The main parts are as follows:

Part I: represented socio-demographic characteristics of sampled women. It concerns with age, residence, education level and occupation. In addition, it includes obstetric history such as labor parity. Women distribution in terms of number and percentage are summarized in table (1) .

Part II: concernes with women's knowledge about their needs during labor. These knowledge includes normal labor , positions during labor, non pharmacologic method of pain relief , effective breathing exercise and relaxation, personal hygiene, energy management, nutrition, voiding, infection prevention measures, effective bearing down. Also, it covers procedures needed during labor such as perineal care, vaginal examination, breast care, episiotomy care, immediate newborn care, breast feeding, emotional needs as knowledge about significant person who attend labor with woman and reducing anxiety during labor and also about hospital discharge. The results of this part are summarized in tables 2 to 8 while are illustrated in figures 1 to 7.

Part III: deal with women's attitude toward their needs and delivery at hospital as well as health team role performance regarding instruction and information support to women during labor. The results are represented in tables 10 and 11 .

<u>Part IV:</u>represents statistical analyses and relationship between women's knowledge about their needs during labor and women's attitude toward their needs, and also this part consists of relationship between women's knowledge and education level, women's parity and health team guidance level. The analysis results are summarized in four tables (12 – 15).

<u>Part V:</u> represents statistical analyses and relationship between women's attitude toward their needs during labor and education level, woman's parity and health team guidance. The analysis results are summarized in three tables (16 – 18).

Part I: Socio- demographic characteristics of the sampled women .

Table (1): Distribution of sampled women regarding to their socio-demographic characteristics. (n = 200)

Item	No.	%
Age		
20 - 30	188	94.00
30 - 40	11	5.50
> 40	1	0.50
Mean = 25.65 years Standard Deviation = 2.6604		
Area of residence		
Urban	16	8.00
Rural	184	92.00
Educational Level		
Illiterate	28	14.00
Read & write	10	5.00
Primary school	42	21.00
Secondary school	104	52.00
High school	16	8.00
Occupation		
Work	6	3.00
House-wife	194	97.00
Woman's parity		
Primipara	82	41.00
Multiple 1	67	33.50
Multiple 2	32	16.00
Multiple 3	15	7.50
Multiple 4	2	1.00
Multiple 5	2	1.00

The previous table shows socio-demographic characteristics of sampled women. Regarding the age composition, the age of the majority of sampled women; 94%, ranges between 20 and 30 years old. Subsequently, average age of the sample are 25.65 years with a standard deviation of 2.6604 years. The major bulk (92%) of the sampled women come from rural areas. About half of the sampled women have a secondary school education level, while women have higher education level; such as high schools and university degrees, are the minority. The percentage of women who are illiterate or just read and write represent about one fifth of the sampled women. Almost all sampled women (97%) are house-wives. About forty percent of the sampled women are primipara and the rest sixty percent are labored before. Women who have labored once and twice comprised about fifty percent of the sampled women, while who have more than two labor do not exceed ten percent of the sampled women.

Part II: Women's knowledge about their needs during labor.

Figure (1): Women's knowledge about labor .

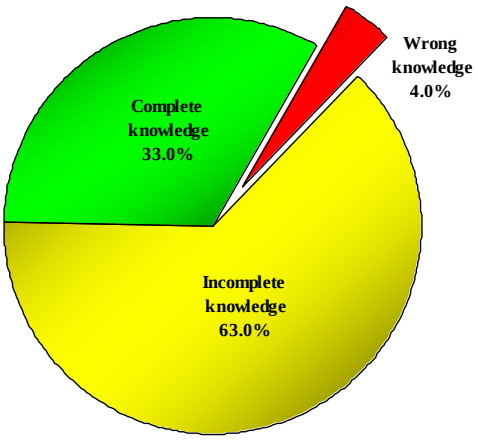
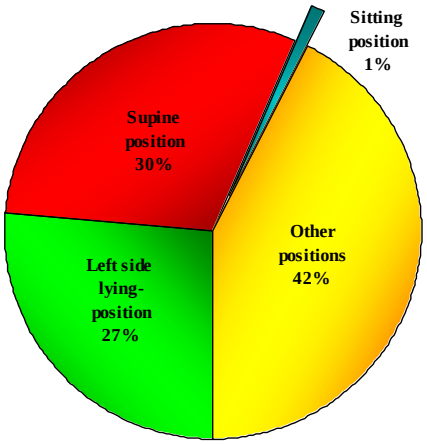
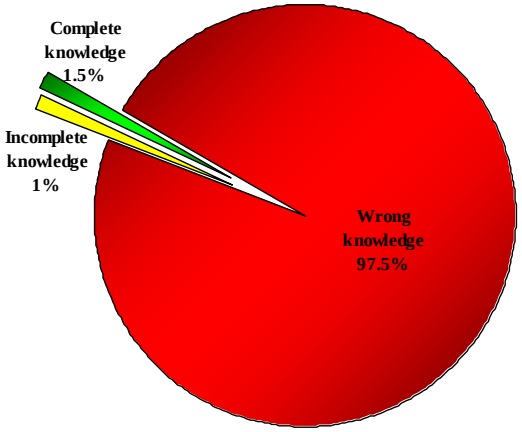
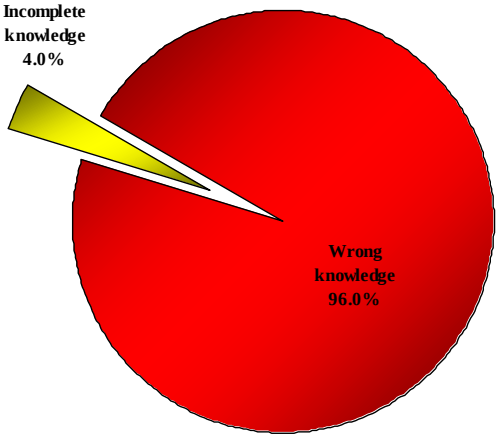
Item	Comment	Figures
Normal labor signs & Symptoms	**Women awareness about labor signs and symptoms are relatively high among sampled women. Most of the women have incomplete and complete knowledge, while four percent only have wrong knowledge.**	

Figure (2): Women's knowledge about comfort positions during labor progress.

Item	Comment	Figures
Relaxing in right position during first stage of delivery	**About of two third of the sampled women has wrong knowledge about relaxing position during first stage of delivery. Only about one forth (27%) know that left side laying position is the suitable and right position for relaxing.**	
Importance of relaxing in right position during first stage of delivery	**The major bulk of sampled women (98%) has wrong knowledge about the importance of relaxing in right position during first stage of delivery.**	
Different positions of delivery except supine	**The majority of sampled women (96%) has wrong or lack of knowledge about the different positions of delivery except supine.**	

Cont. Figure (2): Women's knowledge about comfort positions during labor progress.

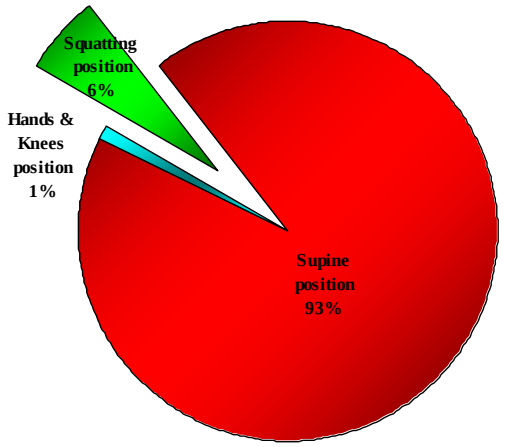
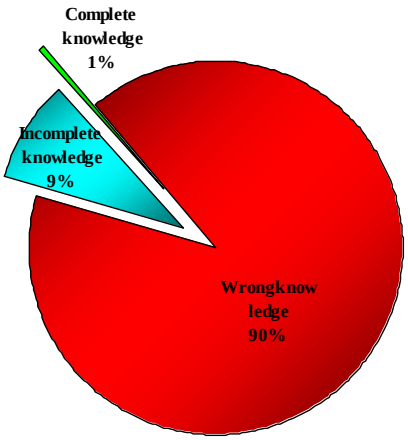
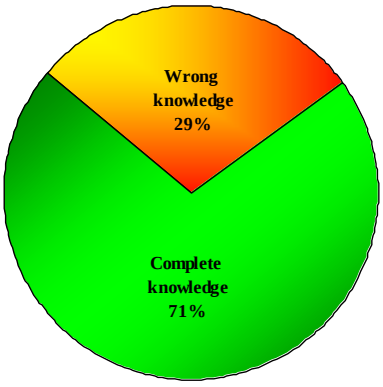
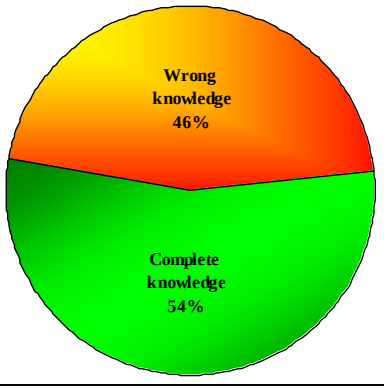
Item	Comment	Figures
Preferred positions for fetal expulsion and delivery progress	**Almost all sampled women (93%) prefer supine positions for fetal expulsion and delivery progress. On the other hand, only six percent of the women prefer the right position; squatting position.**	

Figure (3): Women's knowledge about pain relieve measures during labor.

Item	Comment	Figures
Non-pharmacological methods	**No awareness about non-pharmacological methods for pain relieve during labor has been detected. Only 1% of the sampled women have complete knowledge about these methods.**	
Changing positions as a pain relieve method	**About two third of sampled women correctly know that changing positions is a good method for pain relieve.**	
Information support help in pain relieve	**More than half of sampled women respond that information support helps in pain relieve.**	

Cont. Figure (3): Women's knowledge about pain relieve measures during labor.

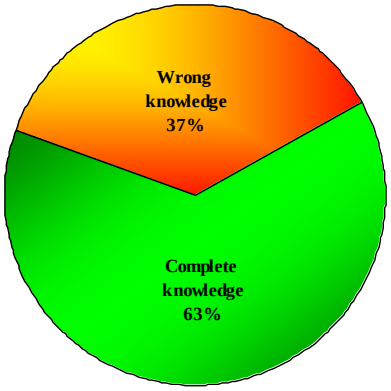
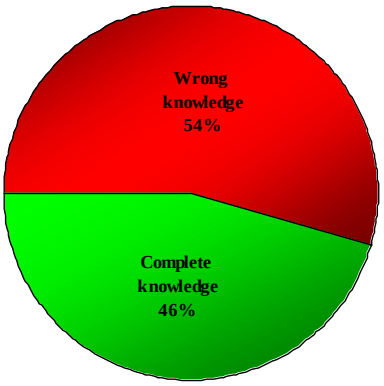
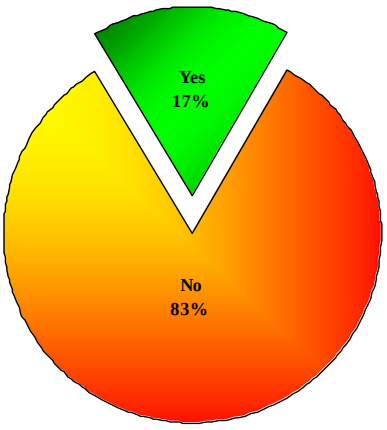
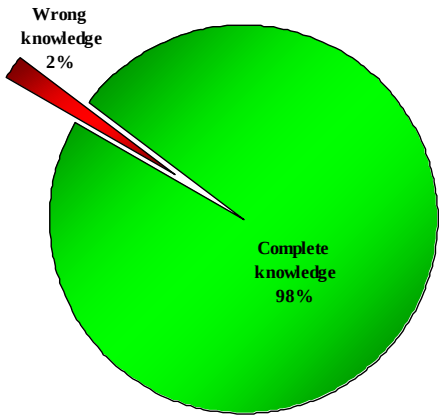
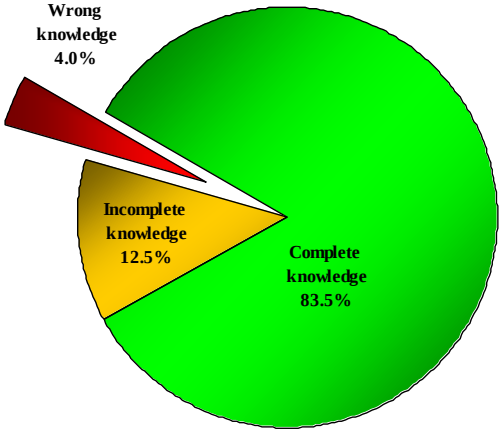
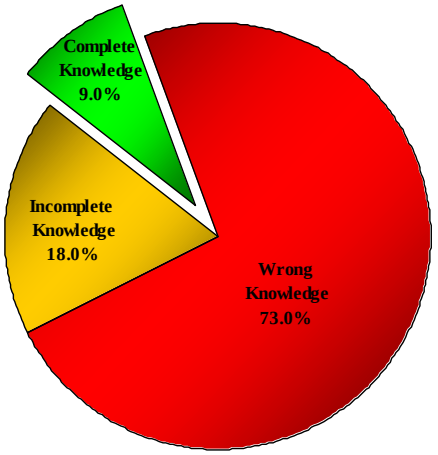
Item	Comment	Figures
Prefer analgesics for pain relieve	**About two thirds of the sampled women answer that they prefer analgesics for pain relive.**	
Side-effects of analgesics	**Little more than half of the sampled women has wrong knowledge about side effects of analgesics.**	
Watching TV for pain relieve	**The majority of the sampled women do not believe that watching TV helps for pain relieve.**	

Table (2): Women's knowledge about effective breathing, energy management, self care (personal hygiene) during labor.

Item	Complete knowledge		Incomplete knowledge		Wrong knowledge	
	No.	%	No.	%	No.	%
Effective breathing exercise and relaxation during labor:						
Know breathing technique and relaxation during labor	1	0.50	26	13.00	173	86.50
Energy management during labor:						
Know the right responses during peak of contraction	138	69.00	2	1.00	60	30.00
Know ways to energy management and prevent fatigue during labor	8	4.00	25	12.50	167	83.50
Personal hygiene:						
Taking shower before labor is important	103	51.50	-	-	97	48.50
Pubic hair could be considered as a source of infection	104	52.00	-	-	96	48.00
Know the healthy method for removing pubic hair	176	88.00			24	12.00

The previous table (2) shows women's knowledge about effective breathing, self care (personal hygiene) and energy management during labor. The result point out to the lack of knowledge concerned with effective breathing exercise and energy management during labor. Percentages of women have wrong knowledge about those issues are 86.5 and 83.5 %, respectively. In contrast, high percentage of sampled women has a good knowledge about healthy method for removing pubic hair and right responses during peak of contraction. The percentages of those women among the sample are 88% and 69%, respectively. Right knowledge about personal hygiene is relatively reasonable (about 50%); good knowledge concerned with shower at labor (51.50%) and pubic hair as a source of infection (52%).

Figure (4): Women's knowledge about Perineal care and effective bearing down

Item	Comment	Figures
Perineal care is important	**Almost all sampled women have complete knowledge about the importance of perineal care.**	
Why perineal care is important	**A great percentage of sampled women (83.5%) have a complete knowledge and believe that perineal care prevent infection during labor.**	
Knowledge about right technique for perineal care	**The figure showes that knowledge about right technique for perineal care are relatively very low. Two third of the women have wrong knowledge about technique for perineal care**	

Cont. Figure (4): Women's knowledge about Perineal care and effective bearing down

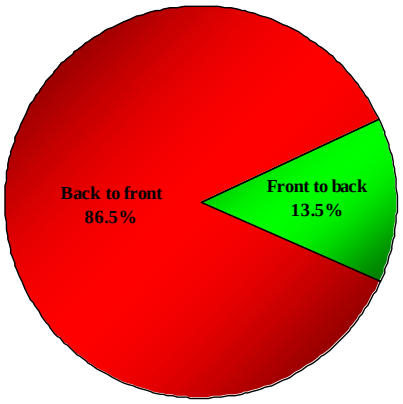
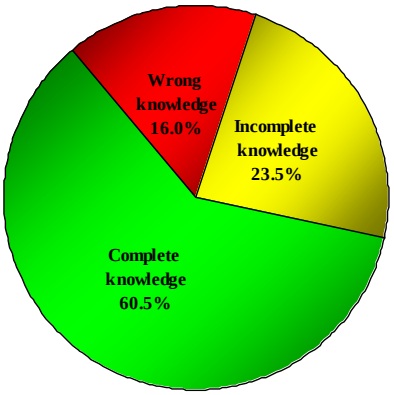
Item	Comment	Figures
changing perineal pads	About 86.50% of the women are changed perineal pads from back to front which is completely wrong way for changing pads.	
Knowledge about effective bearing down	Relatively high percentages of sampled women have complete knowledge about way for effective bearing down.	

Table (3): Women's knowledge about care of episiotomy, breast.

Item	Complete knowledge		Incomplete knowledge		Wrong knowledge	
	No.	%	No.	%	No.	%
Episiotomy care:						
Know episiotomy care technique	2	1.00	11	5.50	187	93.50
Breast care:						
Know complications from neglecting care of breast before nursing	16	8.00	4	2.00	180	90.00
The methods use for treated flat fissures	1	0.50	37	18.50	162	81.00
The technique for breast care	97	48.50	36	18.00	67	33.50

The previous table (3) elaborates that most of women have wrong knowledge about episiotomy care, methods for treated nipple fissures and complications from neglecting care of breast. The major bulk of women (93.5%) have wrong knowledge about technique for episiotomy care.

Concerning breast care, 90 % of women have wrong knowledge about complications arises from neglecting care of breast before nursing. On the other hand, 81% of the women have wrong knowledge about how to treat flat fissures. Reasonable percentage of women has good knowledge about technique for breast care.

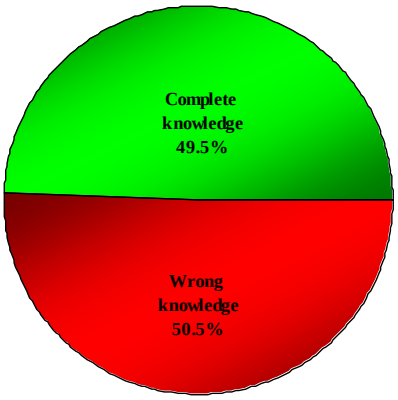
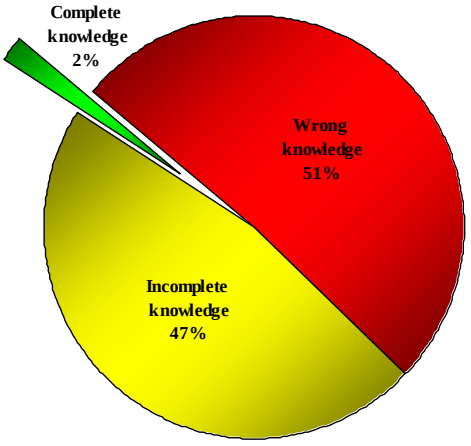
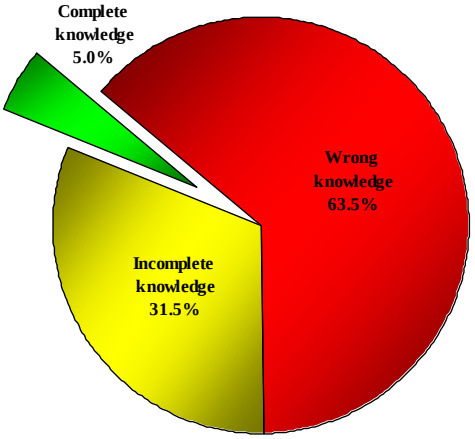
Table (4): Women's knowledge about nutrition, voiding and infection prevention measures during labor.

Item	Complete knowledge		Incomplete knowledge		Wrong knowledge	
	No.	%	No.	%	No.	%
Nutrition during labor:						
Know the kind of food should intake during labor	43	21.50	87	43.50	70	35.00
Voiding during labor:						
Know the importance of regular natural voiding during labor	14	7.00	56	28.00	130	65.00
Know non pharmacological methods help in urination	-	-	2	1.00	198	99.00
infection prevention measures:						
Know the importance of hand washing after voiding	108	54.00	64	32.00	28	14.00
Know the way for keeping integrity of oral mucosa	31	15.50	2	1.00	167	83.50
Labor at home before	9	4.50			191	95.50
Know the important reasons for labor at hospital	9	4.50	20	10.00	171	85.50

Table (4) displays women's knowledge about nutrition, voiding and infection prevention measures during labor. Women are evenly distributed concerning knowledge about nutrition. About one fifth of the sampled women have complete knowledge about kind of food she should have during labor. Concerning voiding during labor, women either lack knowledge about importance of voiding or have wrong information about non-pharmacological methods help in natural urination. As example, almost all women (99%) have wrong information about non-pharmacological methods help in natural urination.

Knowledge about infection prevention measures during labor are wrong knowledge except for hand washing after voiding. On the other hand, 83.5% of the sampled women do not know how to keep integrity of oral mucosa and 95.5% of them have wrong knowledge about labor at home, while the majority of them have complete knowledge about the important reasons for labor at hospital.

Figure (5): Women's knowledge about newborn care.

Item	Comment	Figures
Applying eye drops for newborn	**About half of the sampled women have complete knowledge about the importance of applying eye drops for baby.**	
Umbilical stump care techniques	**The figure elaborates that half of the women have wrong knowledge about umbilical stump care technique**	
Umbilical stump alarming signs required medical support	**Relatively high percentage of women has wrong knowledge about umbilical stump alarming signs which required immediate medical support.**	

Cont. Figure (5): Women's knowledge about newborn care.

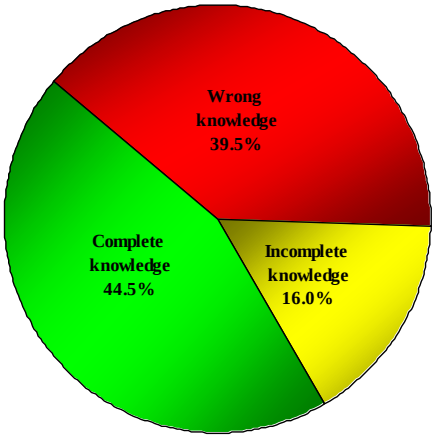
Item	Comment	Figures
The period of umbilical stump drops off	**Wrong knowledge about the period of umbilical stump drop are relatively high among sampled women.**	

Table (5): Women's knowledge about breast feeding.

Item	Complete knowledge		Incomplete knowledge		Wrong knowledge	
	No.	%	No.	%	No.	%
Breast-feeding:						
Importance of avoid newborn feed with formula	81	40.50	50	25.00	69	34.50
Know the benefits of colostrum	73	36.50	38	19.00	89	44.50
Know the period of colostrum's production	2	1.00	103	51.50	95	47.50
Know the complications of nursing in sleeping position	49	24.5	106	53.00	45	22.50
Know the technique for engorgement management	138	69	33	16.50	29	14.50
Know cause of baby vomiting after breast feeding	115	57.50	42	21.00	43	21.50

Table (5) summarizes women's knowledge about breast feeding. The result reveals that reasonable percentage (65%) of sampled women has knowledge about the importance of breast feeding and avoiding feed with formula. About half of the women have a fair knowledge about the importance and benefits of colostrum and the period of colostrum production.

Women's knowledge concerning complications of nursing in sleeping position is relatively low while percentages of women have wrong knowledge is about 75%. Most of the women (69%) believe that pump milk and practice heat massage is an effective technique to manage engorgement. More than half of the women respond that improper breast feeding is the cause for baby vomiting after feeding.

Table (6): knowledge about significant person preferred to attend labor with woman.

Item	No.	%
Psychological and emotional support is given by :		
Mother	**140**	**70.00**
Husband	**33**	**16.50**
Others	**15**	**7.50**
Sister	**12**	**6.00**
Health team emotionally support you during labor :		
No	**7**	**3.50**
Yes	**193**	**96.50**

Table (6) summarizes women's knowledge about psychological and emotional needs during labor. Most of the women (70%) respond that the presence of mother gives them psychological and emotional support. On the other hand the presence of husband gives psychological and emotional support for 16% only of the women. The result indicates that health team has effective role in providing emotional support during labor for almost all women (96.5%).

Table (7): Women's knowledge about reducing anxiety during labor.

Item	No.	%
Expressing your anxiety help in relaxation during labor :		
No	**9**	**4.50**
Yes	**191**	**95.50**
All deliveries similar in intensity of contractions and complications:		
No	**27**	**13.50**
Yes	**173**	**86.50**
Privacy during labor reduce anxiety :		
No	**60**	**30.00**
Yes	**140**	**70.00**
The characteristic of the labor room :		
For labor only	**19**	**9.50**
Quiet, air-conditioned room	**165**	**82.50**
Presence of health team	**16**	**8.00**
The method which plays an important role in initiating mother newborn attachment :		
Immediate nursing	**127**	**63.50**
Keep watching baby	**66**	**33.00**
Others	**7**	**3.50**

Table (7) summarizes women's knowledge reducing anxiety during labor, most of the women have complete knowledge about expressing anxiety. A considerable percentage of sampled women (70) respond that privacy reduces anxiety during labor. Also, 86.5% of the women think that all deliveries are similar in intensity of contractions and complications.

Women express their opinion about characteristics of labor room. The majority of women (82.5%) prefer that labor room should be clean, quiet and air-conditioned.

Sampled women have complete knowledge about methods initiating mother-newborn attachment. 63.5% say that immediate nursing is the natural way to initiate the attachment to the baby, while 33% believes that keep eye on baby helps in generating such attachment.

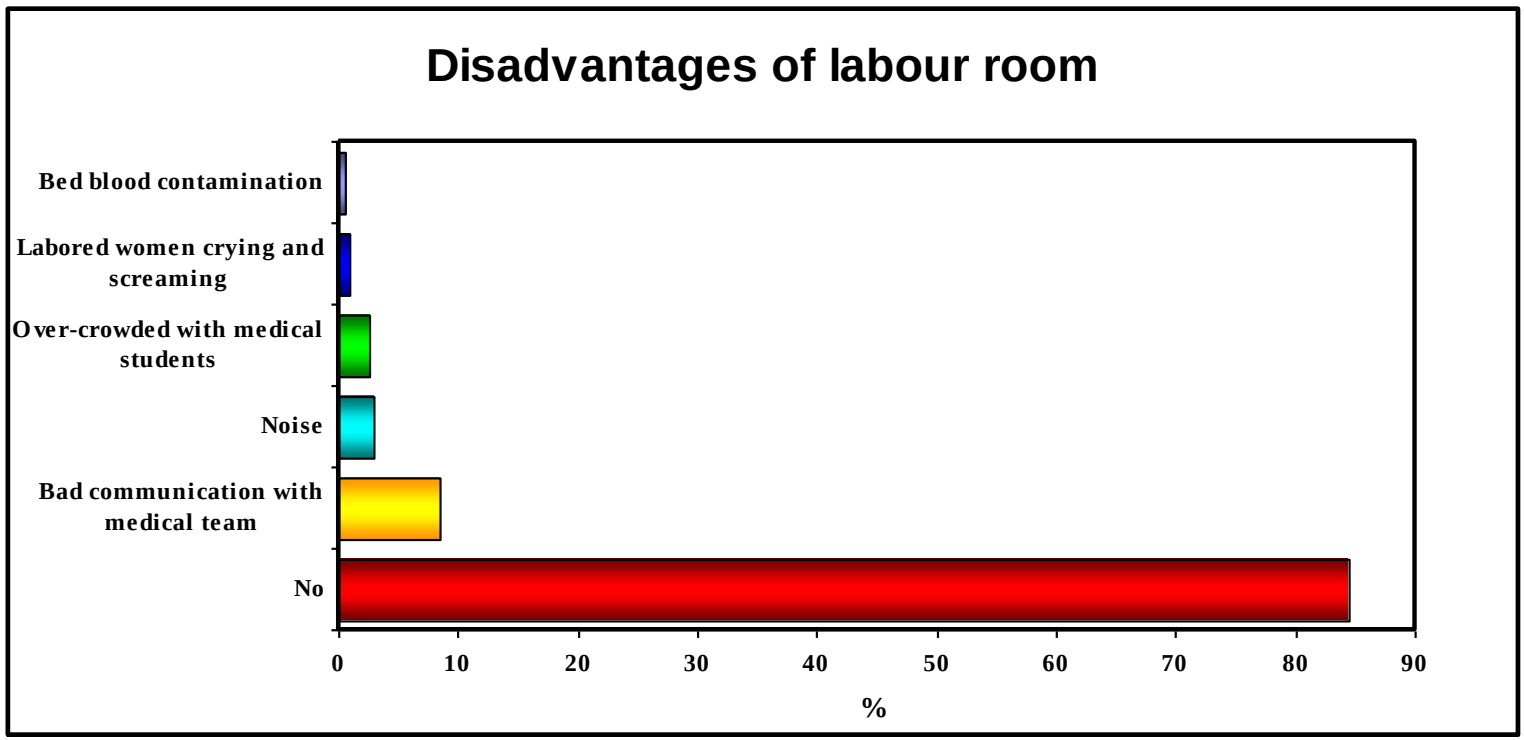


Figure (6): The disadvantages of the labor room.

The above figure shows that most of sampled women neither criticize the labor room nor complain. On the other hand, some of them state that bad communication with health team, noise, over-crowded, women's crying and screaming, and bed sheets contaminations with blood are the major disadvantages.

Table (8): sources of information about women needs during labor.

Item	No.	%
Information source about needs during labor :		
Media	**20**	**10.00**
Family member	**165**	**82.50**
Friends	**4**	**2.00**
health team	**6**	**3.00**
Personal experience	**5**	**2.50**

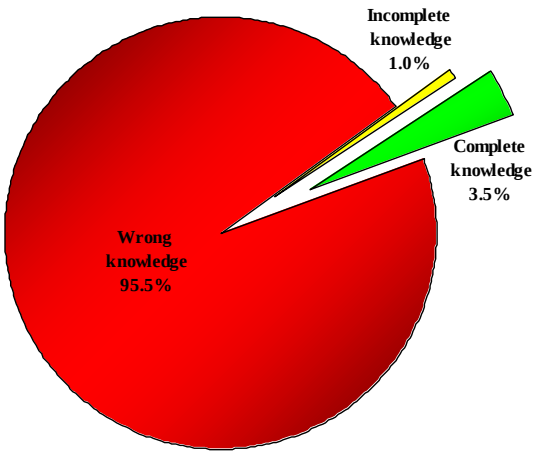
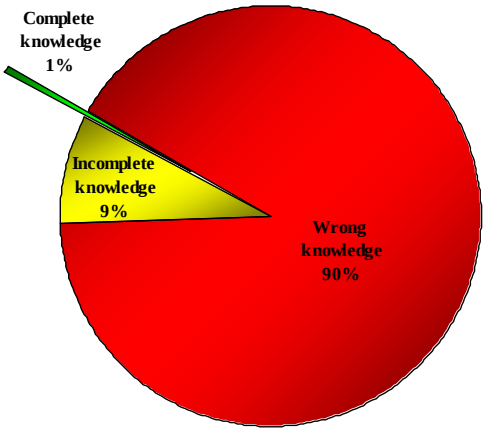
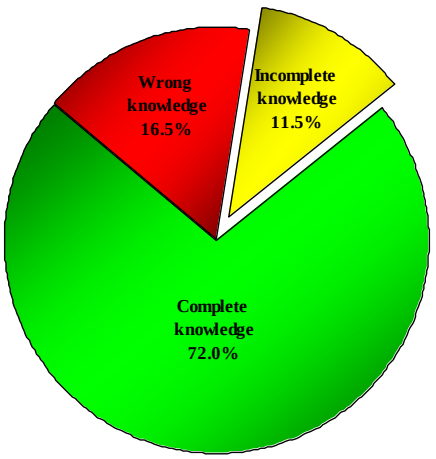
The previous table elaborates that family members is the major sources for information about women's needs during labor. Surprisingly, health team is considered as an information source about women's need for only 3% of the women.

Table (9): Total score of Women's knowledge about their needs during labor.

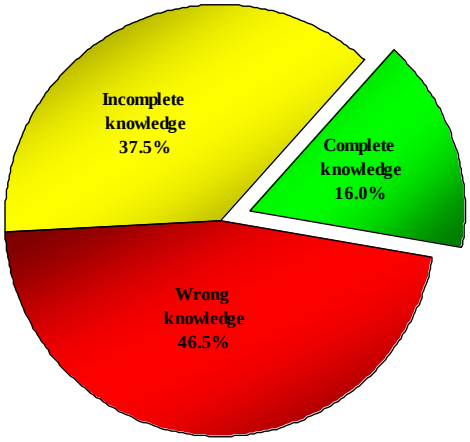
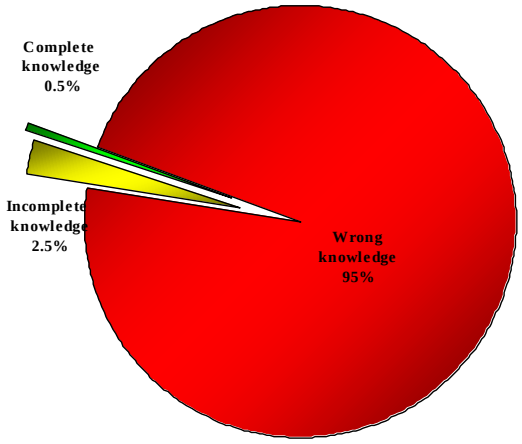
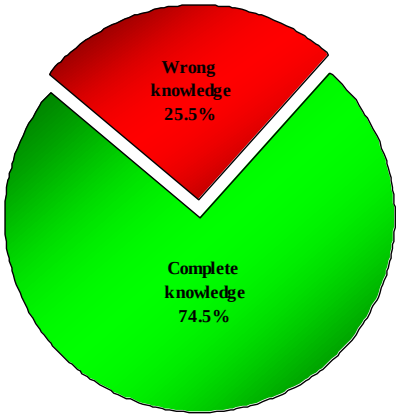
Item	No.	%
Wrong knowledge (0 – 33.3%)	**20**	**10.00**
Incomplete knowledge (33.4 - 66.6%)	**178**	**89.00**
Complete knowledge (66.7 - 100%).	**2**	**1.00**

The previous table shows that most of the sampled women have incomplete knowledge about their needs during labor, while only 1% of the women have good knowledge about their needs.

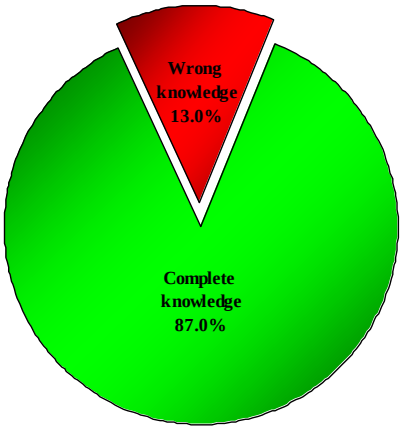
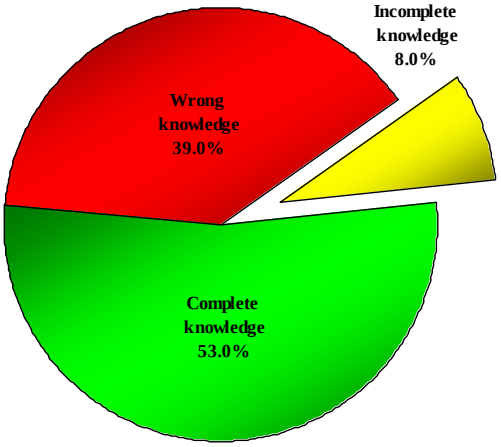
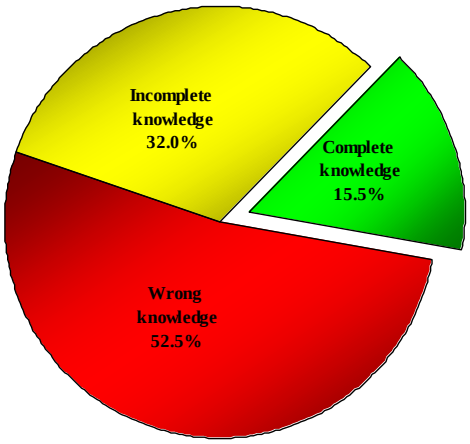
Figure (7): Women's knowledge regarding hospital discharge information.

Item	Comment	Figures
Follow-up schedule during postpartum period	**Women's knowledge about follow-up schedule during postpartum period is very limited among sampled women, where about 96% of women have wrong knowledge.**	
Knowledge about alarming signs during postpartum	**Massive bulk of sampled women (91%) have wrong knowledge about alarming signs during postpartum**	
Food requirements during postpartum period	**High percentage of women has complete knowledge about food requirements during postpartum period.**	

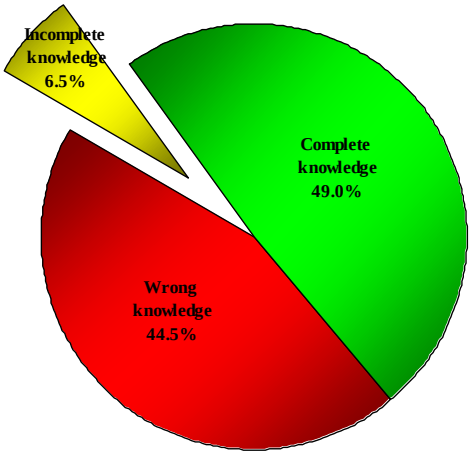
Cont. Figure (7): Women's knowledge regarding hospital discharge.

Item	Comment	Figures
Sleep and relax during postpartum period	**Relatively small percentage of women has complete knowledge about sleep and relaxation during postpartum period.**	
Exercises during postpartum period	**Most of the sampled women have wrong knowledge about exercises during postpartum period.**	
Sexual intercourse during postpartum period	**About three quarter of the sampled women have wrong knowledge about sexual intercourse during postpartum period.**	

Cont. Figure (7): Women's knowledge regarding hospital discharge.

Item	Comment	Figures
Family planning during postpartum period	**Massive bulk of sampled women have complete knowledge. They have the intention to start family planning program during postpartum period.**	
Taking shower during postpartum period	**More than half of the sampled women have a complete knowledge about taking shower and they use to have showers frequently during postpartum period.**	
Baby bath	**Low percentage of women has a complete knowledge about the correct procedures for baby bath.**	

Cont. Figure (7): Women's knowledge regarding hospital discharge information.

Item	Comment	Figures
Neonatal immunization during the first year	**About half of the sampled women have a complete knowledge about baby immunization scheme during the first year**	

Part III: Women's attitude toward their needs and delivery at hospital and the health team performance.

Table (10): Women's attitude toward their needs during labor and toward delivery at hospital.

Item	Negative		Uncertain		Positive	
	No	%	No.	%	No.	%
Women's needs during labor:						
Non pharmacological methods for pain relieve are ineffective	63	31.50	11	5.50	126	63.00
Screaming a no pharmacological method for pain relieve	67	33.50	4	2.00	129	64.50
Early bearing down help in labor progress	98	49.00	5	2.50	97	48.50
Supine position help fetus movement during first stage of labor	130	65.00	9	4.50	61	30.50
Taking shower during first stage cause catching cold	137	68.50	5	2.50	58	29.00
Heavy meal provide energy for effective bearing down	99	49.50	3	1.50	98	49.00
Lithiotomy is a good position during second stage of labor	189	94.50	1	0.50	10	5.00
Sitting in worm tub after delivery is a good way for perineal care	144	72.00	1	0.50	55	27.50
Breast care don't affect baby feeding attitude	97	48.50	8	4.00	95	47.50
Breast always empty after delivery	97	48.50	3	1.50	100	50.00
Colostrum is not enough for baby	124	62.00	4	2.00	72	36.00
Small-size breast an indicator of less milk	84	42.00	5	2.50	111	55.50
Attitude toward labour at hospital:						
Good nursing care	8	4.00	1	0.50	191	95.50
Medical team and equipments protect mother and baby	5	2.50	1	0.50	194	97.00
Hospital coasts nothing	29	14.50	17	8.50	154	77.00

For measuring the women's attitude toward their needs during labor, twelve items have been considered. The women's responses have been categorized under positive, uncertain and negative attitudes. Among the twelve items, positive attitude varies from 5% and 64.50%; concerned lithiotomy position and screaming as non-pharmacological method for pain relieve, respectively. Concerned non-pharmacological methods for pain relieve, 63% of sampled women have positive attitude. About colostrums, high percentage of women has a negative attitude and they believe that colostrum is not enough for baby.

For measuring the women's attitude toward delivery at hospital, three items have been considered namely, nursing care, preparations and facilities and coasts. The women's responses indicate that most of the sampled women have positive attitudes toward delivery at hospital.

Table (11): Health team instruction and information giving to women during labor

Item	No		Yes	
	No.	%	No.	%
Knowledge about effective breathing and relaxation during labour:				
Informed about breathing technique and relaxation during labour	170	85.00	30	15.00
Knowledge about voiding during labor:				
Encouraged for voiding during labor	111	55.50	89	44.50
Knowledge about prevent infections and complications during labor:				
Informed about alarming signs during postpartum	194	97.00	6	3.00
Knowledge about effective bearing down:				
Informed about effective bearing down	89	44.50	111	55.50
Knowledge about perineal care:				
Guided about right technique for perineal care	179	89.50	21	10.50
Knowledge about vaginal examination:				
Instructed about vaginal examination	199	99.50	1	0.50
Knowledge about newborn care:				
Instructed about umbilical cord care	193	96.50	7	3.50
Knowledge about breast feeding:				
Informed about right way for nursing	199	99.50	1	0.50
Informed that nursing should begin at or shortly after delivery	181	90.50	19	9.50

In general, health team instruction and information giving to women during labor is very poor except voiding during labor and effective bearing down. Those two items are represented 44.50% and 55.50% respectively, which is more or less considered as moderate or below average performance.

Part IV: Result analysis and relationship between women's knowledge about their needs during labor and women's attitude toward their needs, and also this part consists of relationship between women's knowledge and education level, women's parity and health team guidance level.

Table (12): Relation between women's knowledge about their needs during labor and women's attitude toward their needs

Knowledge about needs during labor	Attitude toward needs during labor						χ^2	D. F.	P-value
	Low		Moderate		High				
	No	%	No	%	No	%			
Wrong	15	75.0	5	25.0			11.7197*	2	0.0196 Highly Significant difference
Incomplete	57	32.0	109	61.2	12	6.8			
Complete			2	100					
Total	72	36.0	116	58.0	12	6.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

The table reveals that there is a highly significant relation (χ^2 = 11.7197, P-value = 0.4804) between women's knowledge about their needs and their attitude toward their needs during labor.

Table (13): Relation between women's knowledge about their needs during labor and educational level.

Educational level	Knowledge about needs during labor						χ^2	D. F.	P-value
	Wrong		Incomplete		Complete				
	No	%	No	%	No	%			
Low (illiterate and just read& write)	8	10.0	72	90.0			1.0624*	4	0.9002 Non Significant difference
Moderate (Secondary school level)	12	11.5	90	86.6	2	1.9			
High (High school & university)			16	100					
Total	20	10.0	178	89.0	2	1.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

The table reveals that there is non statistical significant relation (χ^2 = 1.0624, P-value = 0.9002) between women's knowledge about their needs and women's educational level.

Table (14): Relation between women's knowledge about their needs during labor and women's parity.

Women's parity	Knowledge about needs during labor						χ^2	D. F.	P-value
	Wrong		Incomplete		Complete				
	No	%	No	%	No	%			
Primipara	15	18.3	67	81.7			9.1129*	2	0.0105 Highly Significant difference
Multiple	5	4.2	111	94.1	2	1.7			
Total	20	10.0	178	89.0	2	1.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

Chi-square test analysis results shows that there is highly statistical significant relation (χ^2 = 9.1129, P-value = 0.0105) between women's knowledge about their needs and women's parity.

Table (15): Relation between women's knowledge about their needs during labor and health team guidance level.

Health team guidance level	Knowledge about needs during labor						χ^2	D. F.	P-value
	Wrong		Incomplete		Complete				
	No	%	No	%	No	%			
Low	20	10.4	171	89.1	1	0.5	2.4352*	2	0.2959 Non Significant difference
Moderate			7	87.5	1	12.5			
Total	20	10.0	178	89.0	2	1.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

The table reveals that there is non statistical significant relation (χ^2 = 2.4352*, P-value = 0.2959) between women's knowledge about their needs and health team guidance level.

Part V: Result analysis and relationship between women's attitude toward their needs during labor and education level, women's parity and health team guidance.

Table (16): Relation between women's attitude toward their needs and educational level.

Educational level	Attitude toward needs during labor						χ^2	D. F.	P-value
	Low		Moderate		High				
	No	%	No	%	No	%			
Low (illiterate and just read& write)	33	41.25	46	57.5	1	1.25	1.5574*	4	0.8164 Non Significant difference
Moderate (Secondary school level)	36	34.6	59	56.7	9	8.7			
High (High school & university)	3	18.75	11	68.75	2	12.50			
Total	72	36.0	116	58.0	12	6.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

This table reveals that there is non statistical significant relation (χ^2 = 1.5574, P-value = 0.8164) between women's attitude toward their needs and educational level.

Table (17): Relation between women's attitude toward their needs and women's parity.

Women's parity	Attitude toward needs during labor						χ^2	D. F.	P-value
	Low		Moderate		High				
	No	%	No	%	No	%			
Primipara	32	39.0	47	57.3	3	3.7	0.9199*	2	0.6313 Non Significant difference
Multiple	40	33.9	69	58.5	9	7.6			
Total	72	36.0	116	58.0	12	6.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

This table shows that there is non statistical significant relation (χ^2 = 0.9199, P-value = 0. 6313) between women's attitude toward their needs and women's parity.

Table (18): Relation between women's attitude toward their needs and health team guidance level.

Health team guidance level	Attitude toward needs during labor						χ^2	D. F.	P-value
	Low		Moderate		High				
	No	%	No	%	No	%			
Low	71	37.0	109	56.8	12	6.2	1.4663*	4	0.4804 Non Significant difference
Moderate	1	12.5	7	87.5					
Total	72	36.0	116	58.0	12	6.0			

*Yates' correction for χ^2 test has been adopted to prevent overestimation of statistical significance for small data.

The above table indicates that there is non statistical significant relation (χ^2 = 1.4663, P-value = 0.4804) between women's attitude toward their needs and health team guidance level.