

RESULT

The results obtained from the study were presented in the following sequence.

Part I: Demographic characteristics of the study nurses.

Figure (1,2,and 3).

Part II: Nurses' knowledge about quality of nursing antenatal care. Table (1-6)

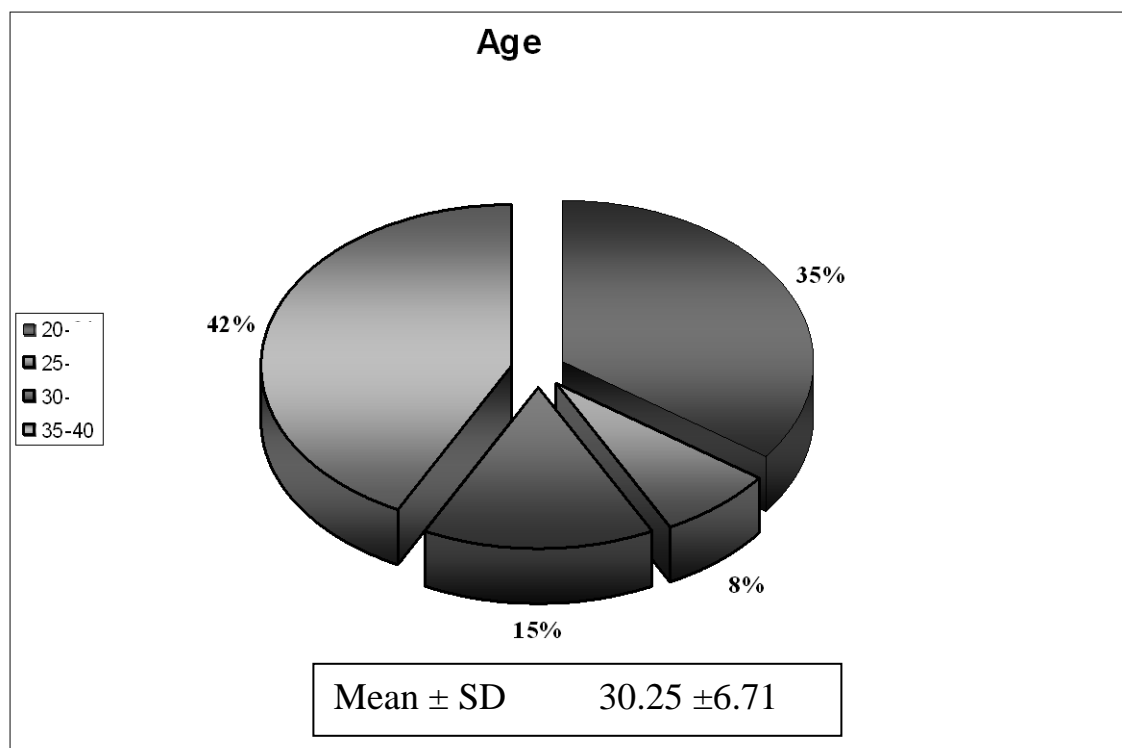
Part III . Standards for antenatal period. it includes.

A-Standards of structure of ante partum unit. Table(7)

B-Standards of nursing care provided during antenatal period.

Table (8,11).

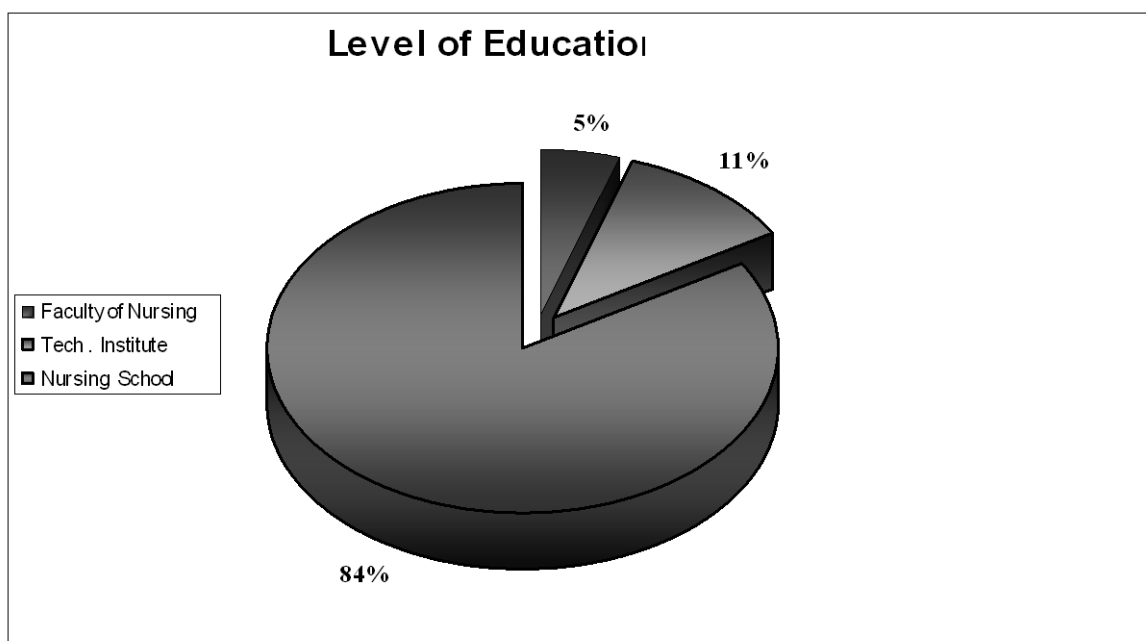
Part IV:- Correlations between nurses knowledge and practice, their experience in relation to their age, educational level and experience. Table (12,13,14).



PART I : Characteristics of the studied Nurses

Figure (1): Distribution of nurses by their age.

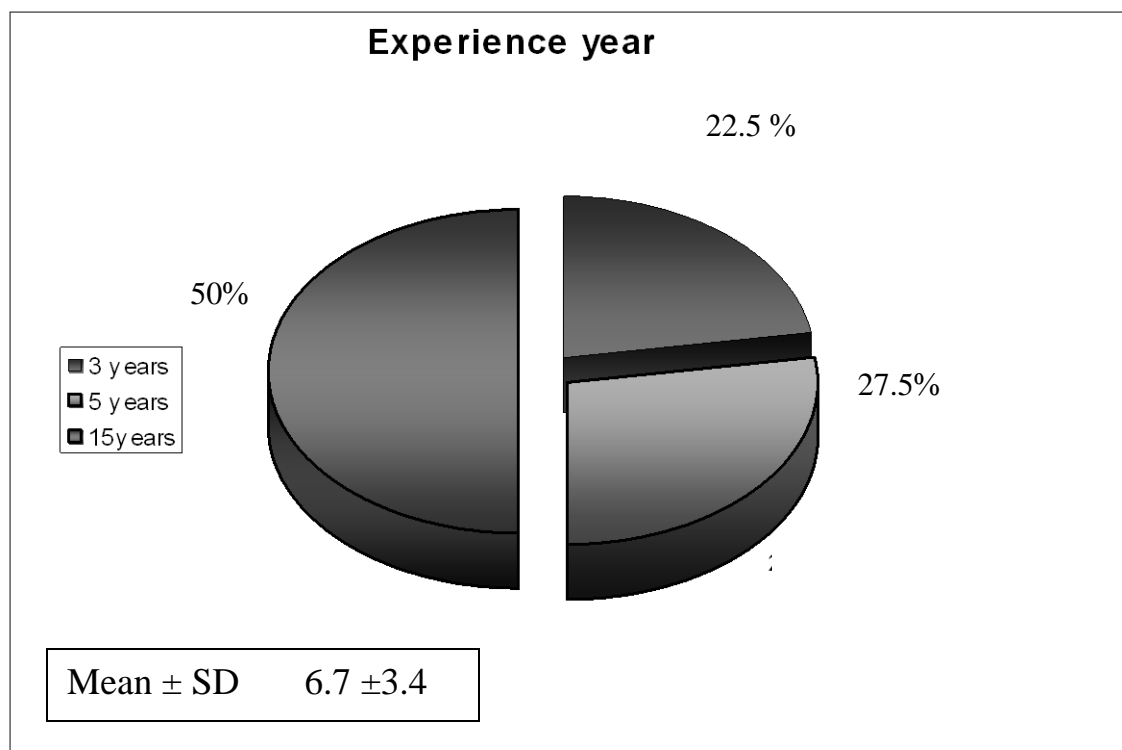
As indicated the Figure (1) the highest percentage of nurses (42%) their age range of 35-40 years, and the mean \pm SD of age was 30.25 \pm 6.71.



PART I : Characteristics of the studied

Figure (2): Distribution of nurses by their qualification

Figure (2) Concerning nurses qualification, the greatest majority of nurses (84%) were staff nurses with diploma, while the least percentage (11%) were having a technical institute and (5%) were having faculty of nursing.



Part I : Characteristics of the studied

Figure (3): Distribution of nurses by their years of experience.

Figure (3) regarding years of experience a half of the nurses (50%) had more than ten years of experience, and (27.5%) had 5 years of experience, while (22.5%) had <3 years of experience and the mean \pm SD was 6.7 ± 3.4 .

All the nurses (100%) did not attend any conferences about quality of nursing performance in the antenatal period.

Part II : Nurse's knowledge about quality of antenatal nursing care

Table(1): Distribution of nurses knowledge regarding definition of prenatal care, pregnancy signs & symptoms, warning signs, weight gain, importance of prenatal care, and follow up visits and its frequencies.

Items	(n=80)				Z	P
	Correct		Incorrect			
	NO	%	NO	%		
Definition of the antenatal period	68	85.0	12	15.0	6.62	<0.001*
Pregnancy signs & symptoms	8	10.0	72	90.0	-5.19	<0.001*
Weight gain	38	47.5	42	52.5	0.44	>0.05
Importance of antenatal care	10	12.5	70	87.5	-6.71	<0.001*
Follow up visits and it s frequencies	43	56.7	37	46.3	0.6	>0.05
Warning signs during antenatal period						
Vaginal bleeding	79	98.75	1	1.25	8.72	<0.001*
Hypertension (up-).	79	98.75	1	1.25	8.72	<0.001*
Edema with convalsion	73	91.25	7	8.75	7.37	<0.001*
Severe Abdominal pain.	69	86.25	14	17.75	6.48	<0.001*
Continuous vomiting	31	38.75	49	61.25	-2.01	<0.001*
Sudden gush of fluid and Rupture of Membrane	56	70.0	24	30.0	3.57	<0.001*

(*) Statistically significant.

As evident from the table (1). The majority of nurses (85%) had Correct answers about definition of antenatal period, (56%) of them had correct answers about frequencies of follow up visits, (59.2%) of nurses had correct answers about weight gain, While The majority of nurses had correct answers about most items of warning signs and (61.25%) of nurses had incorrect answers about continuous vomiting, (87.5%) of nurses had incorrect answers about Importance of antenatal care Meanwhile low percentage of correct answers had also observed for other items in the table, However, there were statistically significant differences in relation to most items ($P < 0.001$).

Table (2): Distribution of nurses regarding their knowledge about nursing care during antenatal period, physiological and psychological changes during pregnancy

Items	(n=80)				Z	P
	Correct		In correct			
	NO	%	NO	%		
* Physiological changes						
- Breast enlargement	78	97.5	2	2.5	8.49	<0.001*
- Enlargement of uterus	72	90.0	8	10.0	5.19	<0.001*
- Frequency of maturation	42	52.5	38	47.5	0.44	>0.05
- Pigmentation	26	32.5	54	67.5	-3.13	<0.001
- Changes in blood pressure	0	0.0	80	100	-	-
- Back and neck pain	28	35.0	52	56.0	-2.6	<0.001*
- Weight gain	78	97.5	2	2.5	8.49	<0.001*
* Psychological changes	12	15.0	68	85.0	-6.26	0<001*

It was noticed from table (2) that, the majority the nurse had correct answers about items of physiological changes (97.5%) of nurses had correct answer about breast enlargement and weight gain, while (52%) of them had correct answer about frequency of macturation. While all nurses incorrect answers about the changes in blood pressure, (67.5%) had incorrect answer about pigmentation while (85%) of nurses had incorrect answers about psychological responses to antenatal period. however there were statistically significant differences in relation to most items ($P<0.001$).

Table (3): Distribution of nurses knowledge regarding common discomforts, nutrition and expected date of delivery during antenatal period.

Items	(n=80)				Z	P
	Correct		In correct			
	NO	%	NO	%		
* Common discomforts during antenatal period						
- Nausea and vomiting	73	91.25	7	8.75	7.37	<0.001*
- Constipations	8	10.0	72	90.0	-7.15	<0.001*
- Hear bum	54	87.5	26	32.5	3.13	<0.001*
- Leg edema	42	52.5	33	47.5	4.41	<0.001*
- In creased vaginal discharge	3	3.75	77	96.5	-8.27	<0.001*
- Frequency of maturation	69	86.25	14	17.75	6.45	<0.001*
- Back ache	60	75.0	20	25.0	4.47	<0.001*
- Leg cramps	21	26.25	59	73.75	4.25	<0.001*
- Headache	31	38.75	49	61.25	-2.01	<0.001*
- Dyspnea	19	23.75	61	67.25	-4.69	<0.001*
* Nutrition during antenatal period.						
- Elements of food	30	37.5	50	62.5	-2.23	<0.001*
- Examples of food for each element (diet contain 3 group)	27	33.75	53	66.25	-2.91	<0.01*
- Types of food needed for pregnant women daily	30	37.5	50	62.5	-2.23	<0.001
- Expected date of delivery	36	45.0	44	55.0	-0.89	>0.05

It was found table (3), that the majority had incorrect answers about items of common during antenatal period (96.5%) of nurses had incorrect answers about increased vaginal discharge, (90%) of nurses had incorrect answers about constipation while (91.25%) of nurses had correct answers about nausea and vomiting from common discomfort of pregnancy and low percentage of correct answers were also observed for other items in the table, however, there were statistically significant differences in relation to most items ($P>0.001$).



Figure (4): Nurses level of nurses knowledge regarding common discomforts during antenatal period.

As evident from figure(4): It was found that nursing knowledge regarding nursing care regarding common discomforts during antenatal period. (54.6%) the more than half of nurses had unsatisfactory knowledge regarding common discomforts during antenatal period .(36.5%) of nurses satisfactory

Table (4): Distribution of nurses by their knowledge about concept of quality for nursing performance during antenatal period.

Items	(n=80)				Z	P
	Correct		In correct			
	NO	%	NO	%		
Concept of quality.	3	3.75	77	96.25	-8.27	<0.001*
Quality of nursing performance	8	10.0	72	90.0	-7.15	<0.001*
Definition the standard of the quality	-	-	80	100	-	-
Definition of nursing performance	-	-	80	100	-	-

As evident from the table (4).concerning nurses knowledge about Concept of quality and quality of nursing performance, it was noticed that (3.75%) lowest percent of nurses had correct answers (10%) no statistical significance differences, ($p>0.001$). while all nurses (100%) had incorrect answers about definition of nursing performance & standard Concepts. There were highly statistically significant differences ($P<0.001$).

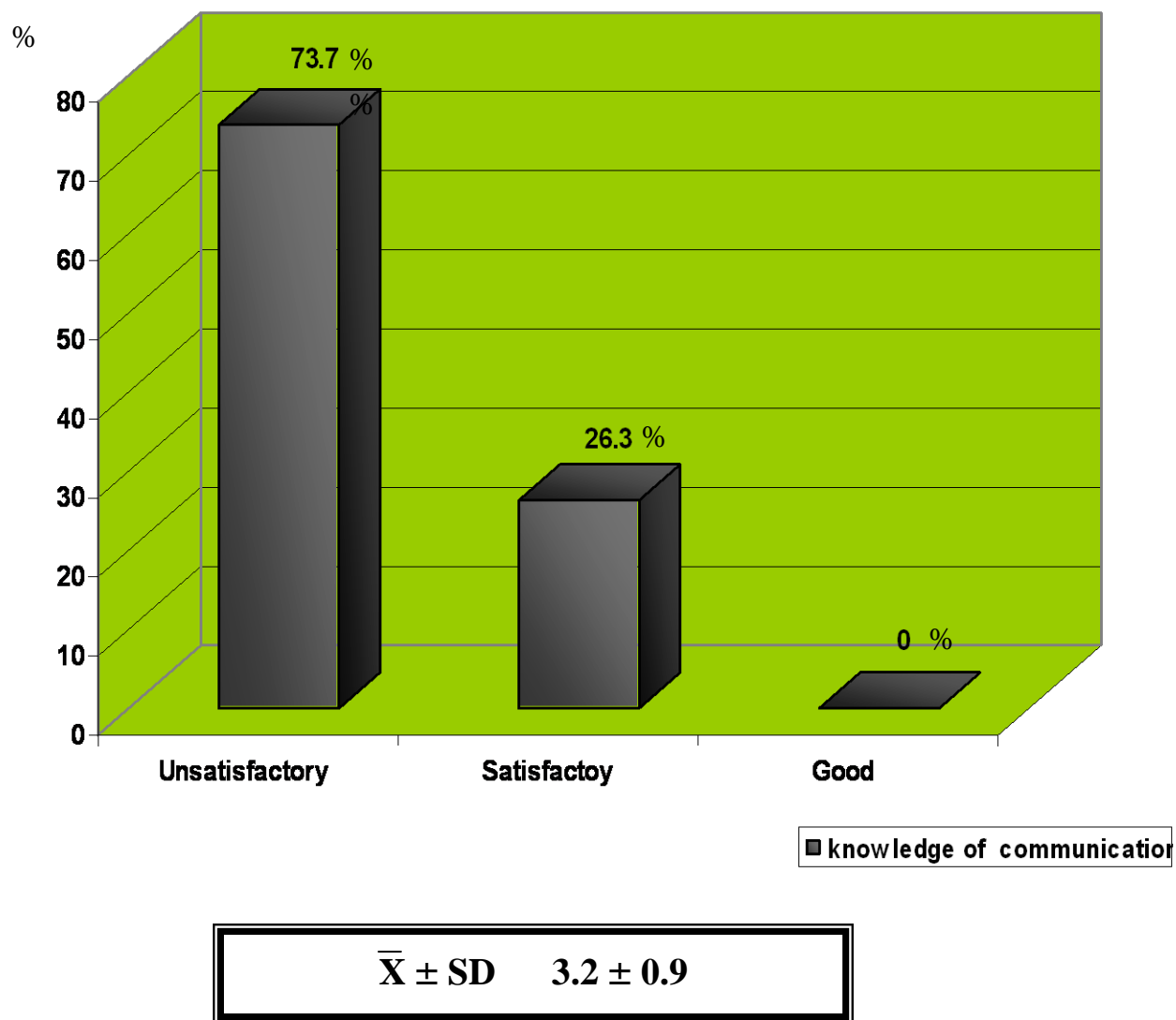


Figure (5): Nurses level of knowledge regarding main elements of communication.

Figure (5): cleared that majority (73.7) of nurses had unsatisfactory knowledge regarding main elements of communication. As compared to non of them had good knowledge

Table (5): Distribution of nurses knowledge about the components of health education given to mother during antenatal period .

Items	Correct		In correct		Z	P
	No	%	No	%		
Breast care.	59	73.75	21	26.25	4.24	<0.001*
Danger signs	30	37.5	50	62.5	-2.23	<0.001*
Work and traveling	27	33.75	53	66.25	-2.91	<0.01*
Antenatal vistas	30	37.5	50	62.5	-2.23	<0.001
Antenatal exercises during antenatal period.	0	0.0	80	100	-	-
Personal Hygiene.	72	90.0	8	10.0	7.15	-0.001*
Rest and sleep.	80	100	-	-		-
Clothing	79	98.75	1	1.25	8.72	<0.001*
Immunization (time)	20	25.0	60	75.0	-4.47	<0.001*
Sexual activity.	21	26.25	59	73.75	-4.25	<0.001*
Breast feeding.	80	100	0	0.0	-	-
Preparing for labour	36	45.0	44	55.0	-0.89	>0.05
Medication (side effect – indication – contraindication).	27	33.75	53	66.25	-2.91	<0.001*

As seen in the table (5), there were lack of nurses knowledge related to most items, where most of their answers were incorrect and the highest percent (100%) were about antenatal exercises, also (62.5%) of nurses had incorrect answers regarding antenatal visits. While the highest correct answers were about breast are (73.25%) personal hygiene (90%) with statistically significant differences ($p < 0.001$), Between correct and incorrect.

Table (6): Mean scores of the studied nurses knowledge regarding antenatal care .

Items	Correct X \pm SD	Incorrect X \pm SD	t test	P
-Physiological changes during antenatal period	46.7 \pm 30.2	33.3 \pm 30.2	2.8*	<0.001*
-Care given to mother during antenatal period.	66.4 \pm 15.6	13.6 \pm 15.6	21.1*	<0.001*
-Quality of care: - Quality of nursing performance.	2.8 \pm 3.7	77.2 \pm 8.1	57.2*	<0.001*
- Health education given to mother during antenatal period.	26.3 \pm 26.8	53.7 \pm 26.6	88.2*	0.001*

As shown in table (6), that mean nurses incorrect knowledge were high regarding quality and health education ($t=57.2, p<0.001$) & ($=88.2, p<0.001$). While mean nurses correct knowledge were higher regarding physiological changes ($t=2.8, p<.001$) and care given ($t=21.1, p<0.001$) with significant difference between correct and incorrect .

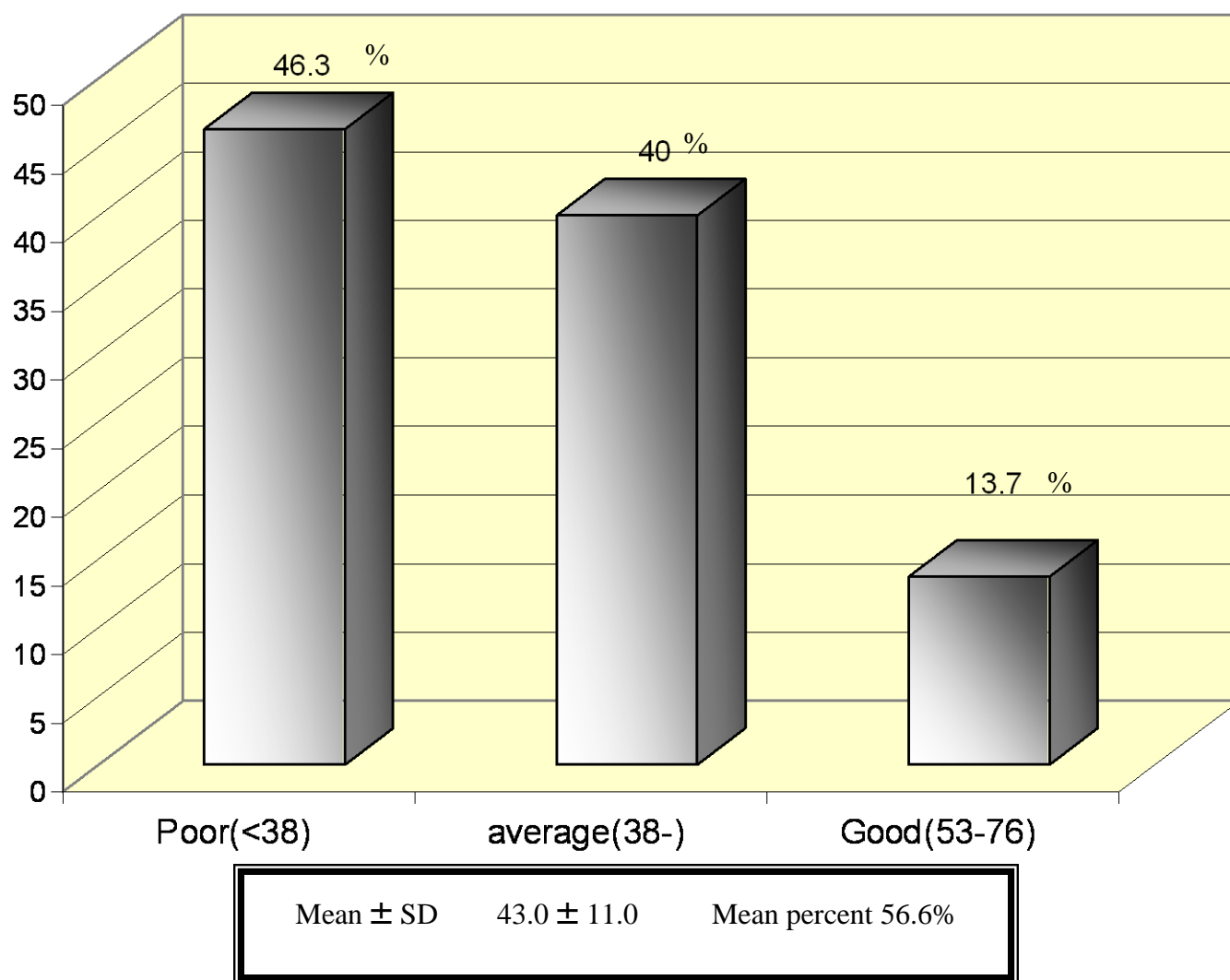


Figure (6): Total level of nurses knowledge regarding nursing care during antenatal period

As evident from Figure (5): It was found that nursing knowledge in all nursing care given in antenatal period was commonly poor (46.3%), followed by average knowledge (40%) and good knowledge. (13.7).

Part III: Standards of nursing care during antenatal period

Standard–A: Availability of structure Items in antenatal unit.

Table (7): Distribution of availability of structural items in antenatal unit

Items	Available and enough		Available and not enough		Not Available	
	No	%	NO	%	No	%
1- Physical setting (6)	3	50.0	2	33.3	1	16.7
2- Furniture (7)	3	42.9	-	-	4	57.1
3- Equipment and supplies(20)	4	20.0	3	15.0	13	65.0
4- Logistics (2)	1	50.0	-	-	1	50.0
5-Medication (7)	7	100.0	-	-	-	-

As shown in the table (7) distribution of availability of structural items in antenatal unit It was obvious that, the highest percentage (100.0%) of drugs was available and enough the highest percentage (33.3%) of structure of room was available and not enough and the highest percentage (65.0%) of equipment and supplies was not available.

B - Standards of nursing care for antenatal mother

Table: (8):Mean scores of actual practice of nurses regarding admission procedure and Explanation of care (n=80).

Items	ACTUAL		t test (P – Value)
	Done	Not Done	
	X±SD	X±SD	
1-Admission care	78±3.5	2.0±3.5	26.87* (< 0.001)
2- Explanation of care.	18.0±7.2	62±17.2	4.43* (< 0.001)

As shown in the table (8) there was statistical significance difference in actual practice of nurses regarding admission procedure ($t=26.87$, $p<0.001$) and Explanation of care ($t=4.43$, $p<0.001$).

Table (9): Mean scores of actual practice of nurses regarding antenatal general & local assessment during antenatal care (n=80).

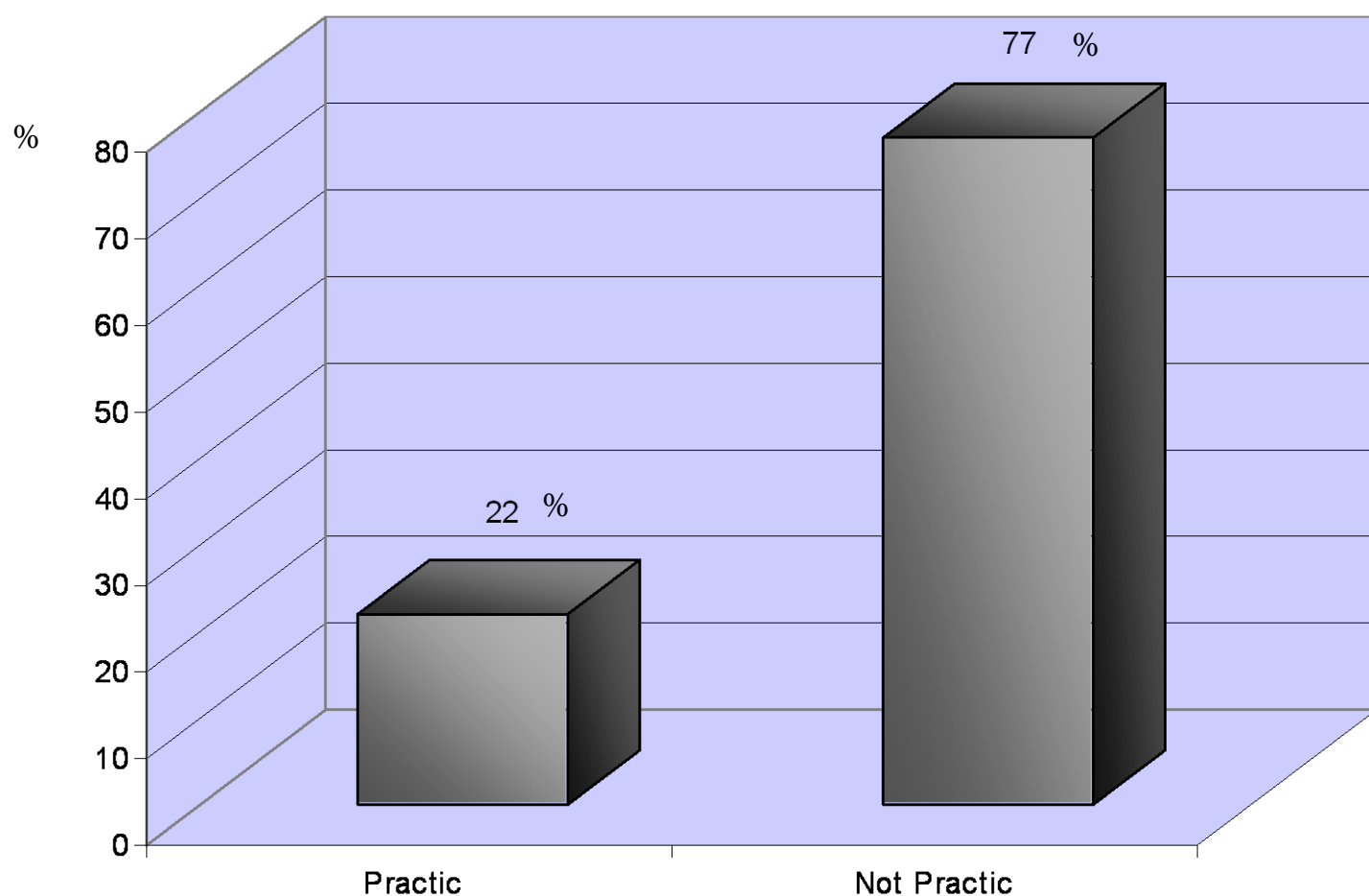
Items	ACTUAL		t test (P – Value)
	Done	Not Done	
	Mean \pm SD	Mean \pm SD	
Communication skill	26.3 \pm 26.6	53.7 \pm 26.6	88.2 (<0.001)
*General assessment			
-Taking History	22.2 \pm 20.1	57.8 \pm 20.1	3.96* (< 0.001)
-Vital signs per schedule	57.8 \pm 20.1	22.2 \pm 20.1	3.96* (< 0.001)
-Lower extremities	71.7 \pm 1.4	9.0 \pm 1.4	95.4* (< 0.001)
-Physical examination			
Height	72.3 \pm 1.5	7.7 \pm 1.5	96.5* (< 0.001)
Weight	72.7 \pm 1.5	7.7 \pm 1.5	
*Local assessment			
Abdominal examination	0.0 \pm 0.0	80.00	0.00
Uterine funds	29.4 \pm 25.9	50.7 \pm 25.4	0.6 (> 0.001)
Breast examination	19.4 \pm 20.5	60.6 \pm 20.5	14.6* (<0.001)
Urine analysis			
- For sugar	29.0 \pm 1.7	51.7 \pm 1.7	78.6* (< 0.001)
- For albumin	29.0 \pm 1.7	51.7 \pm 1.7	

Table (9) shows mean scores of actual practice of nurses regarding antenatal general & local assessment during antenatal care. The results indicated that, there were highly statistically significant differences related to Taking History ($t = 3.96$, $p = < 0.001$). and lower extremities ($t = 95.4$, $p = < 0.001$). Mean while regarding local assessment of uterine fund, there was no statistically significant differences ($t = 0.6$, $p = > 0.05$).

Table (10):Mean scores of actual practice of nurses about nursing care procedures during antenatal period .

Items	ACTUAL		t-test (p-value)
	Done	Not Done	
	Mean \pm SD	Mean \pm SD	
Breast care	17.9 \pm 8.7	62.1 \pm 8.7	13.6* (<0.001)
Provide comfort measures	22.3 \pm 6.7	57.7 \pm 6.7	6.5 (< 0.003)*
Psychological support	29 \pm 1.7	51 \pm 1.7	78.6 (<0.001)*
Providing Health education	18.4 \pm 20.3	61.6 \pm 20.3	13.5 (<0.001)*

The results of the table (10) shows mean scores of actual practice of nurses regarding nursing care procedures during antenatal period. The results indicated that, there were statistical significant difference related to breast care ($t=13.6$, $p=< 0.001$), and comfort measures ($t =6.5$, $p= <0.001$), psychological support ($t = 78.6$, $p=<0.001$), and health education ($t =13.5$, $p=<0.001$).



Figure(7): actual practice of nurses regarding infection control measures during antenatal care. (n=80)

As shown in the Figure (7): Infection control measures were not Practiced by the majority of nurses during antenatal care.

Table (11): Distribution of nurses regarding actual practice of nurses regarding infection control measures during antenatal care

* Infection control standards :	Actual			
	Done		Not Done	
	No	%	No	%
- Cleaning of the room.	48	60.0	32	40.0
- Disinfections of the room .	6	7.5	74	92.5
- Hand washing before any procedure.	27	33.75	53	66.25
- Wearing examination gloves.	17	21.25	63	78.75
- Cleaning, disinfecting equipment.	8	10.0	72	90.0
- Waste disposal.	2	2.5	78	97.5
Mean ± SD	18.0±17.3		62±17.3	
(P-value)	< 0.001			
t-test	4.43			

As shown in the table(11) the highest percentage of cleaning of the room (60%) while the lowest percentage was about disinfection of the room (7.5). There were statistically significant differences ($t = 4.43$, $p = <0.001$) .It was observed that most items of this approach had low percentage.

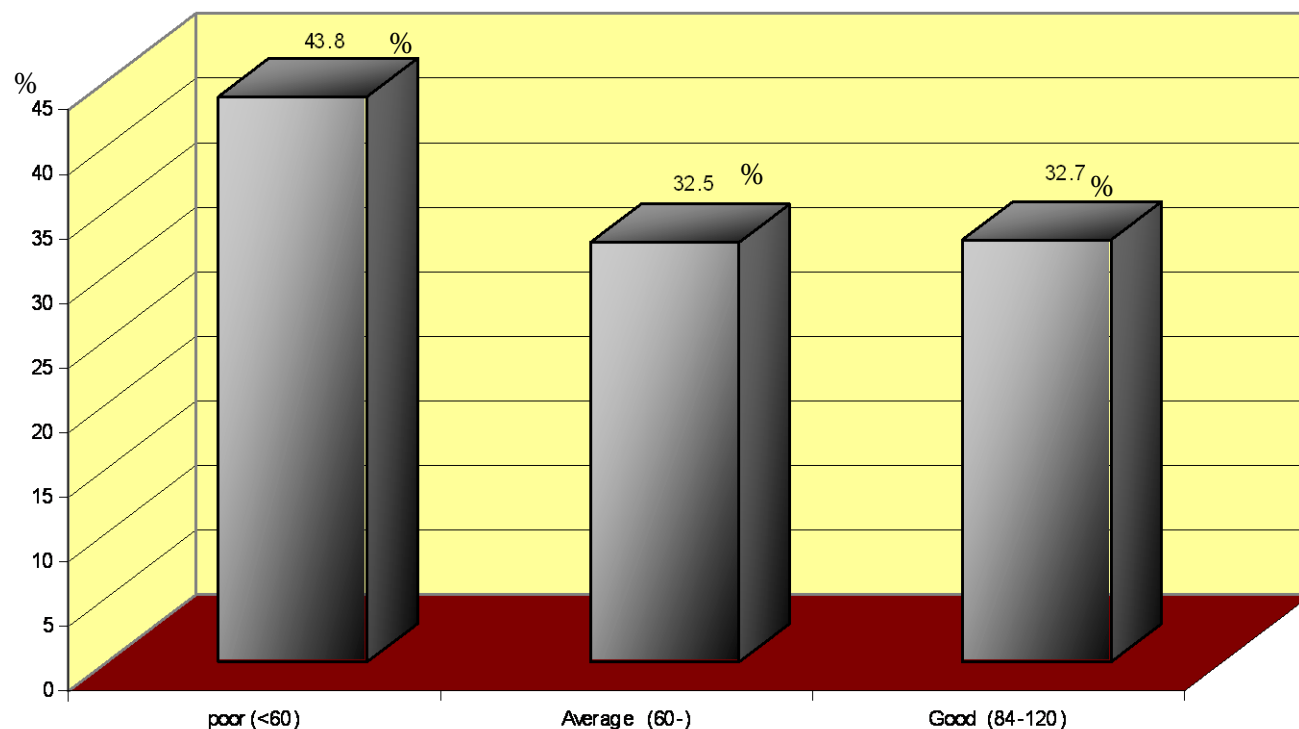


Figure (8) Total level of nurses practice regarding nursing care during antenatal period (n=80).

As evident from figure (7). That the nursing practice was poor (43.8%), Average it was (32.5%) and good was (23.7%). It was found that nursing practice in all nursing care given in antenatal period was poor.

PART IV : - Correlation between nurses , knowledge and practice scores.

Table (12):- Correlation between nurses level of knowledge and their level of practice. (n=80)

Level of nurses knowledge		Level of nurses practice						Test of significant r
		Poor N=26		Average N=35		Good N=19		
		No	%	N0	%	No	%	
Poor	(n=32)	20	76.92	11	31.42	1	2.26	
Average	(n=37)	6	23.07	23		8		+0.93
Good	(n=11)	0	0.0	1		10		

Table (12) shows that, there was strong positive correlation between nurses level of knowledge and their level of practice ($r=+0.93$).

Table (13): Correlation between nurses knowledge and their some demographic data.

Some of Demographic Data	Level of Nurses knowledge						Test of Significant r
	Poor n=32		Average N=37		Good N=11		
	No	%	No	%	No	%	
1-Age (Years).							
20- (n=28)	19	59.37	7	18.9	2	18.18	+0.64
25 (n=18)	7	21.87	8	21.62	3	27.27	
35-40 (n=34)	6	18.75	22	59.45	6	54.54	
2- Qualification							
Secondary school (n=67)	28	87.5	32	86.48	7	63.63	+0.82
Tech. In statute (n=9)	2	6.25	4	10.81	3	27.27	
Faculty of Nursing (n=4)	1	3.1	1	2.70	7	63.63	
3- years of experience :							
<3 years (n=18)	15	47.87	3	8.10	2	18.18	+0.76
3- 5years. (n=22)	9	28.125	7	18.91	4	36.36	
5 – 15 years (n=40)	8	25.0	27	72.97	5	45.45	

Table (13) shows that, there was a strong positive correlation between nurses knowledge both their age. ($r = +0.64$), their level of education ($r=+0.82$)and years of experience($r= +0.76$).

Table (14): Correlation between nurses practice and their some demographic data.

Some of Demographic Data	Level of Nurses Practice						Test of Significant r
	Poor N=26		Average N=35		Good N=19		
	No	%	No	%	No	%	
1-Age (Years).							
20- (n=28)	17	65.38	8	22.85	3	15.78	+0.89
25 (n=18)	3	11.53	9	25.71	6	31.57	
35-40 (n=34)	6	7.56	18	51.42	10	52.63	
2-Qualification							
Secondary school (n=67)	0	-	2	5.71	2	10.52	+0.93
Tech. In statute (n=9)	2	7.69	3	8.57	4	21.05	
Faculty of Nursing (n=4)	22	84.61	30	85.71	15	78.94	
3- Years of experience :							
<3 Years (n=18)	10	38.46	7	20	1	5.26	+0.91
3- 5 Years. (n=22)	9	34.61	7	20	6	31.57	
5 – 15 Years (n=40)	7	26.92	21	60	12	63.15	

Table (14) shows that, there was a strong positive correlation between nurses practice and their age ($r=+0.89$), their level of education ($r= +0.93$) and years of experience ($r=+0.91$).