RESULTS

The results of the study will be presented in the following sequence:

Part I. Socio-demographic characteristics of the studied sample (table 1).

Part II. Level of nurses` awareness regarding quality assurance. (Tables 2 - 12).

Part III. Relation between nurses` awareness and their demographic characteristics (tables 13 - 15).

Part IV. Correlation between nurses` awareness and their demographic characteristics (tables 16 - 18).

Part I. Socio-demographic characteristics of studied group

Table (1) Socio-demographic characteristics of the studied sample. (n=270)

Demographic characteristics	Total(N=270)	
	N	**%**
Age		
< 30	122	45.2
30 - 40	100	37
> 40	48	17.8
(X ± SD)	32.3889	± 7.1417
Years of experience		
less than 5 years	53	19.6
5 - 10	72	26.7
10 - 15	59	21.9
more than 15 years	86	31.8
(X ± SD)	12.825	± 7.7983
Education		
Nursing diploma	168	62.2
Associated nursing diploma	53	19.6
Baccalaureate nursing degree	49	18.2
Department		
Medical	132	48.9
Surgical	138	51.1

Table (1) shows that the total studied sample was (270) nurse; (51.1%) working at surgical departments and the other (48.9%) at medical departments. As regarding to Age, the majority of nurses (45.2%) were 20-30 years, while (17.8%) were more than 40 years. As far as nurses` years of experience, the highest percent of nurses (31.9%) their experience were over fifteen years, while the minority of them (19.6%) their experience were less than five years. In relation to nurses` education, (62.2%) have nursing diploma, while the minority of them (18.2%) have baccalaureate nursing degree.

Part II. Level of nurses` awareness about quality assurance.

Table (2) distribution of nurses` awareness regarding the concept of quality assurance. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Definition of quality assurance	242	89.6	24	8.9	4	1.5	387.289	0.000***
2- Collect and analyze required data is one of the principles of quality assurance	165	61.1	97	35.9	8	3	137.756	0.000***
3- Quality assurance standards which focus on patient include the access to health care at a continuous basis	208	77	37	13.7	25	9.3	232.867	0.000***
4- Elevation and increasing of employees and stakeholders' satisfaction one of the objectives of quality assurance in hospital	195	72.2	67	24.8	8	3	203.089	0.000***
5- Quality Assurance Indicators including the availability of hospital records that are required to collect the data.	200	74.1	59	21.9	11	4.1	214.467	0.000***

Significant (<0.05*)

Table (2) shows that (89.6%) of nurses were aware regarding definition of quality assurance. While (9.3%) of them were unaware to Quality assurance standards which focus on patient include the access to health care at a continuous basis

Table (3) distribution of nurses` awareness regarding the resources required to implement quality assurance in hospital. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Sufficient number of different nursing qualifications and skills in each section	236	87.4	25	9.3	9	3.3	356.689	0.000***
2- The availability of adequate equipments at each department that used in providing nursing care	231	85.6	29	10.7	10	3.7	333.356	0.000***
3- The availability of supplies (such as bed linen - hospital patients` clothes – I.V Devices - Medication....., etc.) at each department in the hospital	202	74.8	56	20.7	12	4.4	219.822	0.000***
4- The existence of places for waiting comfortable and enough for visitors.	180	66.7	60	22.2	30	11.1	140.000	0.000***
5- A library containing specialized books available for health team in hospital	188	69.6	71	26.3	11	4.1	180.067	0.000***
6- Existence of a means of entertainment (such as television - .... etc.) in each patient room	175	64.8	68	25.2	27	10	129.756	0.000***
7- The availability of global information network (Internet) at the hospital so nurses can access it and learn the new in the provision of nursing services	168	62.2	79	29.3	23	8.5	118.822	0.000***
8- The presence of room equipped for nursing staff	203	75.2	53	19.6	14	5.2	221.267	0.000***
9- The existence of elevators in the hospital for the transport of patients	206	76.3	55	20.4	9	3.3	236.022	0.000***
10- The presence of wheelchairs and stretchers for ease and rapid transfer of patients	226	83.7	34	12.6	10	3.7	311.467	0.000***

Significant (<0.05*)

Table (3) illustrates that the highest percent were (87.4% & 85.6% & 83.7%) of nurses were aware regarding sufficient number of different nursing qualifications and skills in each section, the availability of adequate equipments at each department, and The presence of wheelchairs and stretchers, while the lowest percent (11.1%) of them were unaware regarding the existence of places for waiting comfortable and enough for visitors.

Table (4) distribution of nurses` awareness regarding the follow-up and maintenance of resources. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- A system of periodic maintenance of existing tools in the hospital.	222	82.2	38	14.1	10	3.7	294.756	0.000***
2- A system of regular inventory of existing resources with forums	206	76.3	59	21.9	5	1.9	240.467	0.000***
3- Disclosure of the reasons of misuse of resources by supervisor of each section.	199	73.7	46	17	25	9.3	200.467	0.000***
4- Explore the best use of available resources at department.	201	74.4	57	21.1	12	4.4	216.600	0.000***
5- The existence of a list of equipment in each unit	193	71.5	67	24.8	10	3.7	184.867	0.000***
6- Store special equipment as the equipment of breathing and oxygen in safe place.	224	83	28	10.4	18	6.7	299.822	0.000***
7- Store special equipment as the equipment of breathing and oxygen in easily access place.	224	83	34	12.6	12	4.4	301.956	0.000***

Significant (<0.05*)

Table (4) displays that the highest percent were (83%) of nurses were aware regarding to store special equipment as the equipment of breathing and oxygen in safe place & store special equipment as the equipment of breathing and oxygen in easily access place. Also, (82.2%) of them were aware regarding to periodic maintenance of existing tools in the hospital. While the lowest percent was (9.3%) of them were unaware regarding to disclosure of the reasons of misuse of resources by supervisor of each section.

Table (5) distribution of nurses` awareness regarding their role in the hospital's quality assurance. (n=270)

Items	Highly aware		Moderate aware		Unaware		X²	P
	N	%	N	%	N	%		
1- Following the quality system in the classifying the patients	204	75.6	53	19.6	13	4.8	225.489	0.000***
2- Making matching between patient category and nurses' number in the preparation of schedules of nursing.	195	72.2	58	21.5	17	6.3	193.089	0.000***
3- Registration of nursing procedure in accordance with the quality system	203	75.2	46	17	21	7.8	216.289	0.000***
4- Assessing the patient's status and write it in the record	213	78.9	49	18.1	8	3	261.489	0.000***
5- Identify the patients nursing needs.	197	73	61	22.6	12	4.4	204.156	0.000***
6- Providing care for each patient according to his needs	204	75.6	46	17	20	7.4	220.356	0.000***
7- Providing nursing care during 24 hours per day, 7 days per week.	215	79.6	45	16.7	10	3.7	267.222	0.000***
8- Prepare the patient's discharge plan	175	64.8	76	28.1	19	7	138.467	0.000***
9- Provide nursing care according to the standards of quality performance	207	76.7	49	18.1	14	5.2	234.956	0.000***

Significant (<0.05*)

Table (5) shows that the highest percents were (79.6%, 78.9%) of nurses were aware regarding providing nursing care during 24 hours per day, 7 days per week , Assessing the patient's status and write it in the record respectively. While the lowest percent was (7.8%) of them were unaware regarding to Registration of nursing procedure in accordance with the quality system.

Table (6) distribution of nurses` awareness regarding the nursing staff development. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Conducting in-service training courses on how to use the tools developed in each department	230	85.2	23	8.5	17	6.3	326.867	0.000***
2- Conducting in-service training program for nurses on the development of problem-solving skills and decision making	204	75.6	52	19.3	14	5.2	224.622	0.000***
3- Conducting training courses for nurses to develop their performance	212	78.5	36	13.3	22	8.1	249.156	0.000***
4- Conducting scientific meetings to disseminate and increase awareness of nursing staff about the concept of quality and its importance and how to apply it at the hospital	199	73.7	50	18.5	21	7.8	202.689	0.000***
5- Conducting program on hospital infection control precautions	222	82.2	39	14.4	9	3.3	295.400	0.000***
6- Conducting orientation program for newly nurses that includes the responsibilities and duties of each nurse.	209	77.4	40	14.8	21	7.8	238.022	0.000***
7- Identifying employees with the goals and plan of the hospital to ensure quality	213	78.9	44	16.3	13	4.8	257.489	0.000***
8- Training employees on how to manage crises and disasters in the hospital	222	82.2	36	13.3	12	4.4	293.600	0.000***

Significant (<0.05*)

Table (6) displays that the highest percent (85.2%) of nurses were aware regarding conducting in-service training courses on how to use the tools developed in each department. Also, (82.2%) of them were aware regarding conducting program on hospital infection control precautions, Training employees on how to manage crises and disasters in the hospital. While (8.1%) of them were unaware regarding to conducting training courses for nurses to develop their performance

Table (7) distribution of nurses` awareness regarding the role of management in the application of quality assurance in hospital in relation to planning activities. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Write a strategic plan for hospital	205	75.9	44	16.3	21	7.8	223.356	0.000***
2- Prepare a plan to manage disasters and crises in hospital	220	81.5	38	14.1	12	4.4	285.422	0.000***
3- Identify the problems facing nurses in work and affecting the quality of service provided	207	76.7	38	14.1	25	9.3	229.089	0.000***
4- Analysis the periodic reports filed by the sections	206	76.3	47	17.4	17	6.3	229.267	0.000***
5- Develop a solutions to these problems	207	76.7	44	16.3	19	7	231.622	0.000***

Significant (<0.05*)

Table (7) shows that (81.5%) of nurses were aware regarding prepare a plan to manage disasters and crises in hospital. While the lowest percent was (9.3%) of them were unaware regarding to Identify the problems facing nurses in work and affecting the quality of service provided.

Table (8) distribution of nurses` awareness regarding the role of management in the application of quality assurance in hospital in relation to organizing activities. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Formulating quality assurance committee in the hospital	233	86.3	28	10.4	9	3.3	342.822	0.000***
2- Disseminating a culture of quality in hospital	211	78.1	40	14.8	19	7	246.467	0.000***
3- Publishing regulations of quality assurance in hospital.	210	77.8	34	12.6	26	9.6	240.356	0.000***
8- Designing an organizational chart for managing the nursing services	209	77.4	45	16.7	16	5.9	240.689	0.000***
4- Identify the training needs of nursing staff in hospital	224	83	31	11.5	15	5.6	300.689	0.000***
5- Prepare a written and advertiser job description that outlines the roles and responsibilities of each employee within the hospital.	195	72.2	63	23.3	12	4.4	198.200	0.000***

Significant (<0.05*)

Table (8) displays that (86.3%) of nurses were aware regarding formulating quality assurance committee in the hospital. Followed by (83%) of nurses were aware regarding identify the training needs of nursing staff in hospital. While the lowest percent was (9.6%) of them were unaware regarding Publishing regulations of quality assurance in hospital.

Table (9) distribution of nurses` awareness regarding the role of management in the application of quality assurance in hospital in relation to directing activities. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Supervising the implementation of quality within the hospital	213	78.9	44	16.3	13	4.8	257.489	0.000***
2- Submitting periodic reports on implementation of quality within the hospital for the quality assurance committee	207	76.7	43	15.9	20	7.4	231.089	0.000***
3- Applying principles of quality in making hospital filing system	199	73.7	44	16.3	27	10	199.622	0.000***
4- Follow the quality system in documentation	209	77.4	44	16.3	17	6.3	240.067	0.000***
5- Encourage social activities at the hospital	188	69.6	65	24.1	17	6.3	172.867	0.000***

Significant (<0.05*)

Table (9) shows that (78.9%) of nurses were aware regarding supervising the implementation of quality within the hospital. Followed by (**77.4**%) of nurses were aware regarding follow the quality system in documentation. While the lowest percent was (10%) of them were unaware regarding Applying principles of quality in making hospital filing system.

Table (10) distribution of nurses` awareness regarding the role of management in the application of quality assurance in hospital in relation to controlling activities. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Ongoing assessment the implementation of quality within the hospital	208	77	46	17	16	5.9	237.067	0.000***
2- Reducing the factors that hinder the application of quality in the hospital	221	81.9	32	11.9	17	6.3	287.267	0.000***
3- Follow-up the implementation of the hospital training plan	207	76.7	48	17.8	15	5.6	234.200	0.000***
4- Provide a healthy and safe environment to help nurses to work in hospital.	204	75.6	47	17.4	19	7	220.956	0.000***
5- Maintain the cleanliness of the hospital environment	211	78.1	45	16.7	14	5.2	249.356	0.000***
6- Measure hospital staff satisfaction and take into account all the suggestions	205	75.9	45	16.7	20	7.4	223.889	0.000***

Significant (<0.05*)

Table (10) illustrate that the highest percent (81.9%) of nurses were aware regarding reducing the factors that hinder the application of quality in the hospital. While (7.4%) of them were unaware regarding measure hospital staff satisfaction and take into account all the suggestions.

Table (11) distribution of nurses` awareness regarding the role of the Quality Assurance team at the hospital. (n=270)

Items	Highly aware		Moderate aware		Unaware		X^2	P
	N	%	N	%	N	%		
1- Developing the standards for the nursing performance at each section	221	81.9	35	13	14	5.2	288.467	0.000***
2- Developing the standards for the records	200	74.1	57	21.1	13	4.8	212.422	0.000***
3- Explain the expected standards of performance for nurses	211	78.1	30	11.1	29	10.7	244.022	0.000***
4- Periodic updating of written standards	210	77.8	47	17.4	13	4.8	246.422	0.000***
5- Periodic evaluation of the nursing performance to determine the gap between real performance and the performance according to the standards	204	75.6	48	17.8	18	6.7	221.600	0.000***
6- Assess the quality of the records in hospital	201	74.4	52	19.3	17	6.3	212.156	0.000***
7- Availability of booklet that contains nursing techniques that should be followed at each section	211	78.1	43	15.9	16	5.9	248.067	0.000***
8- Revision the nursing manual procedure booklet at least annually	218	80.7	35	13	17	6.3	274.867	0.000***
9- Instigation and encourage workers to participate in the work and to be satisfied and proud of it	210	77.8	38	14.1	22	8.1	241.422	0.000***
10- Analysis the reports filed by the sections	217	80.4	38	14.1	15	5.6	271.756	0.000***
11- Conduct SWOT analysis for hospital environment (Strengths – Weakness – Opportunities – Threatens).	208	77	43	15.9	19	7	235.267	0.000***

Significant (<0.05*)

Table (11) shows that the highest percent (81.9%) of nurses were aware regarding developing the standards for the nursing performance at each section, also, the majority of them (80.7% & 80.4%) were aware regarding to revision the nursing manual procedure booklet at least annually & analysis the reports filed by the sections. While (10.7 %) of them were unaware regarding to explain the expected standards of performance for nurses.

Table (12): distribution of nurses' awareness regarding the Quality assurance.

Main items of quality assurance	Total number of nurses = 270					
	Highly aware		Moderate aware		Unaware	
	> 7ᵒ%		50% - < 75 %		< 50 %	
	N	%	N	%	N	%
1- Concept of quality assurance	237	87.8	30	11.1	3	1.1
2- resources required to implement quality assurance in hospital	247	91.5	18	6.7	5	1.9
3- Follow up and maintaining of resources	242	89.6	22	8.1	6	2.2
4- Role of nursing staff in quality	232	85.9	33	12.2	5	1.9
5- Nursing staff development	233	86.3	28	10.4	9	3.3
6- The role of management in the application of quality assurance in hospital	241	89.3	20	7.4	9	3.3
7- Role of quality team	239	88.5	20	7.4	11	4.1

Table (12) shows that the highest percent (91.5%) of nurses were aware regarding resources required to implement quality assurance in hospital, also, the majority (89.6% & 89.3%) of them were aware regarding follow up and maintaining of resources, the role of management in the application of quality assurance in hospital. While the lowest percent (4.1%) of them were unaware regarding to role of quality team.

Table (13): Relation between nurses` age and their awareness regarding quality assurance. (n=270)

Items	Highly aware (245)		Moderate aware (19)		Unaware (6)		X²	P
	no	%	no	%	no	%		
Age								
-30	112	91.8	8	6.6	2	1.6	10.5	<0.05*
-40	95	95.0	4	4.0	1	1.0		
40<	38	79.2	7	14.6	3	6.2		

Significant (<0.05*)

This table shows there is a statistical significant difference in relation to nurses` age and their awareness regarding quality assurance. Most of the nurses (95%) were aware to Quality Assurance at 30-40 years old. While the highest percent (6.2%) of them were unaware to Quality Assurance at the age of 40 years and more.

Table (14): Relation between nurses` years of experience and their awareness regarding quality assurance. (n=270)

Items	Highly aware (245)		Moderate aware (19)		Unaware (6)		X^2	P
	no	%	no	%	no	%		
Years of experience less than 5 years	48	90.6	4	7.5	1	1.9		
5-	67	93.1	4	5.6	1	1.4	7.2	>0.05
10-	57	96.6	2	3.4	0	٠.0		
more than 15 years	73	84.9	9	10.5	4	4.7		

This table shows there is no statistical significant difference in relation to nurses` years of experience and their awareness regarding quality assurance. Most of the nurses (96.6%) were aware to Quality Assurance at experience of 10-15 years. While the highest percent (4.7%) of them were unaware to Quality Assurance at experience more than 15 years**.**

Table (15): Relation between nurses` education level and their awareness regarding quality assurance. (n=270)

Items	Highly aware (245)		Moderate aware (19)		Unaware (6)		X^2	P
	no	%	no	%	no	%		
Education								
Nursing diploma	152	90.5	13	7.7	3	1.8	1.1	>0.05
Associated nursing diploma	48	90.6	3	5.7	2	3.8		
Baccalaureate nursing degree	45	91.8	3	6.1	1	2.0		

This table shows there is no statistical significant difference in relation to nurses` education level and their awareness regarding quality assurance. Most of the nurses (91.8%) were aware to Quality Assurance were had Baccalaureate nursing degree. While the highest percent (3.8%) of them were unaware to Quality Assurance were had Associated nursing diploma

Table (16): Correlations between nurses` age and their awareness regarding Quality assurance. (n=270).

Age	r	P value
Nurses awareness	- 0.129	0.034*

*Correlation is significant at P < 0.05

Table (16) shows that there is a statistical significant difference in relation to nurses` age and their awareness regarding quality assurance, There is a negative correlation between nurses` age and their awareness (-0.129). This means that when nurses` age increased, their degree of awareness is decreased.

Table (17): Correlations between nurses` years of experience and their awareness regarding Quality assurance. (n=270)

years of experience	r	P value
Nurses awareness	- 0.074	0.226

Table (17) shows that there is no statistical significant difference in relation to nurses` years of experience and their awareness regarding quality assurance, there is a negative correlation between nurses` years of experience and their awareness (-0.074). This means that when nurses` years of experience increased, their degree of awareness is decreased.

Table (18): Correlations between nurses` education and their awareness regarding Quality assurance.. (n=270)

Education	r	P value
Nurses awareness	0.007	0.912

Table (18) shows that there is no statistical significant difference in relation to nurses` education level and their awareness regarding quality assurance, there is a positive correlation between nurses` education and their awareness (0.007). This means that when nurses` education increased, their degree of awareness is increased.