

Results

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

- Part I.*** Socio-demographic characteristics of staff nurses in the studied sample. table 1.
- Part II.*** The perception of staff nurses about their organizational feature of work environment. table 2-3.
- Part III.*** Relationship between wards organizational features and staff nurses socio-demographic characteristics. tables 4-6
- Part IV.*** Nursing care performance provided by participants: tables 7 -11
- Part VI.*** Relationship between staff nurses performance & socio-demographic characteristics: tables 12-14.
- Part VII.*** Relationship between the organizational features of work levels & the nursing care performance levels provided by participants in the studied units table 15
- Part VIII.*** Correlation between wards organizational features of work environment as perceived by participants and Total Nurses performance in Studied Department at Benha University Hospitals. table 16
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Part I: Characteristics of The Study Subjects

Table (1): Socio-Demographic Characteristics of Nurses in Studied

Department at Benha University Hospitals

Socio-Demographic Characteristics	Nurses In The Studied Department							
	Critical care units (n=50) (41.7%)		General surgical units (n=25) (20.8%)		General medicine units (n=45) (37.5%)		Total number of Nurses (n=120)	
	No	%	No	%	No	%	No	%
<u>Age in years</u>								
20 -	36	72.0	11	44.0	10	22.2	47.5	57
30 -	13	26.0	3	12.0	5	11.1	17.5	21
> 40	1	2.0	11	44.0	30	66.7	35.0	42
<u>Marital status</u>								
Married	44	88.0	21	84.0	38	84.4	85.8	103
unmarried	6	12.0	4	16.0	7	15.6	14.2	17
<u>Years of Experience</u>								
< 10	33	66.0	8	32.0	13	28.9	45.0	54
10-	16	32.0	5	20.0	5	11.1	21.7	26
> 20	1	2.0	12	48.0	27	60.0	33.3	40

Table(1) shows the distributions of study group according to socio-demographic characteristics .The results indicate that the total study sample are(120) staff nurses the highest percent of them (41.7%) were working in the critical care units while the lowest percent of them (20.8%) were working in the general surgical care units .As regarding their age the highest percent of participants were (57%) ranged their age between 20-30 years old , while the lowest percent of them were (21%) ranged their age between 31-40 years old , in relation to marital status the majority of study sample (85.8%) were married ,while (14.2%) of them are unmarried. As regarding to years of experience the highest percent of participants (45%) ranged 1 -10 years of experience , while the lowest percent of participants (21.7%) ranged between 10-20 years of experience .

Table (2): comparison of the organizational features of Nursing work environment Mean score as perceived by the participants in the Studied Department at Benha University Hospitals

organizational features of work environment Dimensions	Nurses In The Studied Department			F test	P value
	Critical care units X (n=50) ± SD	General surgical units (n=25) X ± SD	General medicine units (n=45) X ± SD		
I-Physical environment of the ward					
(a) Ward Facilities	12.3 ± 3.22	11.68 ± 2.25	10.62 ± 2.35	4.5 ²	* < 0.05
(b) Ward Layout	13.14 ± 2.45	12.96 ± 1.52	9.04 ± 2.25	46.9 ^{2,3}	** < 0.001
(c) Staff Organization	14.56 ± 2.54	11.12 ± 1.88	10.62 ± 1.89	43.7 ^{1,2}	** < 0.001
(d) Quality of Ward Services	13.86 ± 2.89	12.28 ± 1.79	11.64 ± 2.7	0.92	>0.05
Total	45.82 ± 8.83	43.00 ± 4.92	40.58 ± 6.36	3.42 ²	** < 0.001
II- Professional Working Relationship					
(a) Professional Practice	20.42 ± 8.91	17.92 ± 4.64	20.13 ± 5.42	1.15	>0.05
(b) Hierarchical Practice	11.52 ± 2.31	12.12 ± 1.54	11.62 ± 1.56	0.86	>0.05
Total	41.16 ± 11.12	36.96 ± 4.87	38.22 ± 4.51	2.57	>0.05
III- Unit Leadership					
a) Team-building Skills of Ward Leaders	18.80 ± 4.22	17.16 ± 2.29	16.98 ± 2.52	3.03 ²	** < 0.001
IV- Professional Nursing Practice					
(a) Collaboration with Medical Staff	14.12 ± 4.33	12.64 ± 2.23	13.33 ± 2.22	1.82	>0.05
(b) Collaboration with Other Health Care Professionals	12.42 ± 2.55	11.76 ± 2.15	12.47 ± 1.98	0.9	>0.05
(c) Cohesion Amongst Nurses	14.78 ± 5.93	12.64 ± 1.89	12.87 ± 1.74	3.51 ²	* < 0.05
Total	31.92 ± 4.23	30.04 ± 4.83	29.23 ± 5.86	3.55 ²	* < 0.05
VI- Nurses' Influence over					
(a) Ward Management	15.66 ± 5.77	12.88 ± 2.22	15.27 ± 2.41	3.99 ^{1,3}	* < 0.05
(b) Timing of Ward and Patient Events	16.12 ± 6.77	13.20 ± 2.43	13.53 ± 2.99	4.54 ^{1,2}	* < 0.05
(c) Financial and Human Resources	8.88 ± 2.87	9.08 ± 3.16	9.20 ± 1.73	0.19	>0.05
Total	40.22 ± 12.65	33.96 ± 4.77	37.78 ± 4.86	4.07 ^{1,3}	* < 0.05
VII - Job Satisfaction					
(a) Job Satisfaction	18.04 ± 2.00	18.16 ± 1.68	16.48 ± 2.90	6.73 ^{2,3}	** < 0.001
Total score	192.2 ± 16.0	186.1 ± 15.0	176.3 ± 10.8	15.4 ^{2,3}	** < 0.001

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

1, the significance difference is between the critical care units and general surgical units groups

2, the significance difference is between the critical care units and general medical units groups

3, the significance difference is between the general surgical units and general medicine units groups

Table (2) shows the Mean and standard deviation of the organizational features of Nursing work environment score as perceived by the participants in the studied departments at Benha University Hospitals. It can be seen that, there is a high statistically significant difference ($p < 0.001$) as related to physical environment, unit leadership and job satisfaction. As far as professional nursing practice, and nurses influence over ward management , timing of ward and patient events ,financial and human resource show statistical significant difference($p < 0.05$).while there is no statistical significant difference(>0.05) the professional nursing relationship between them.

Table (3): percentage of agreement of participants on the wards organizational features of work environment among Nurses in Studied Department at Benha University Hospitals.

organizational features levels	Nurses In The Studied Department						Total participants (n=120)	X ²	P
	Critical care units (n=50)		General surgical units (n=25)		General medicine units (n=45)				
	No	%	No	%	No	%			
-Unsatisfactory features (≤ 185)	1	2.0	11	44.0	25	55.6	37	30.8	34.89 ** < 0.001
-Satisfactory features (186-387)	38	76.0	12	48.0	15	33.3	65	54.2	
-HighlySatisfactory features (≥388)	11	22.0	2	8.0	5	11.1	18	15	

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table(3) reveals percentage of agreement of participants on the wards organizational features of work environment among nurses in studied departments at Benha University Hospitals. the results indicate a high statistically significant difference ($p < 0.001$) as regards the percent of agreement of participants on organizational features of work environment the result indicate that the majority of them (54.2%) perceived the organizational feature as satisfactory , while the minority (15%) of participants perceived the organizational features as highly satisfactory.

Table (4): Relationship between wards organizational features and Nurses age in Studied Department at Benha University Hospitals.

Organizational features levels	Age of Nurses						X ²	P
	20 -		30-		> 40			
	(n = 57)		(n = 21)		(n = 42)			
	No	%	No	%	No	%		
-Unsatisfactory features (≤ 185)	13	22.8	8	38.1	16	38.1	9.42	* < 0.05
- Satisfactory features (186-387)	39	68.4	8	38.1	18	42.9		
-Highly Satisfactory features (≥388)	5	8.8	5	23.8	8	19.0		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (4) indicates the relationship between wards organizational features and nurses age in studied departments at Benha University Hospitals, the results shows a statistically significant difference ($p < 0.05$) among the studied groups, moreover the highest percent (68.4%) of them was in age ranged 20-30 years old shows satisfactory features, while the lowest percent (8.8%) were in age ranged between 20-30 years old shows highly satisfactory features.

Table (5): Relationship between wards organizational features and Nurses Marital status in Studied Department at Benha University Hospitals.

organizational features	Married (n = 103)		Unmarried (n = 17)		X ²	P
	No	%	No	%		
-Unsatisfactory features (≤ 185)	32	31.1	5	29.4	0.23	>0.05
- Satisfactory features (186-387)	55	53.4	10	58.8		
-Highly Satisfactory features (≥388)	16	15.5	2	11.8		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (5) showed the Relationship between wards organizational features and nurse's marital status in studied departments at Benha University Hospitals. It shows that there was no significant relationship between wards organizational features and nurses marital status ($p > 0.05$) among the studied groups.

Table (6): Relationship between wards organizational features and Nurses Years of Experience in Studied Department at Benha University Hospitals.

Organizational features levels	Years of Experience of Nurses						X ²	P
	< 10		10 -		> 20			
	(n= 54)		(n = 26)		(n = 40)			
	No	%	No	%	No	%		
-Unsatisfactory features (≤ 185)	20	37.0	11	42.3	6	15.0	21.69	** < 0.001
- Satisfactory features (186-387)	32	29.3	13	50.0	20	50.0		
-Highly Satisfactory features (≥388)	2	3.7	2	7.7	14	35.0		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (6) shows that the Relationship between wards organizational features and nurses years of experience in the studied departments at Benha University Hospitals. It shows a highly statistical significant relationship ($p < 0.001$), where the highest percent(50%, for each) was ranged between 10 more than 20 years of experience shows satisfactory features while the lowest percent (3.7%) was less than 10years of experience who showed highly satisfactory features .

Table (7): Mean and standard deviation for Nurses performance in Studied Department at Benha University Hospitals.

Nursing care performance Dimensions	Nurses In The Studied Department			F test	P value
	Critical care units (n=50) $\bar{X} \pm SD$	General surgical units (n=25) $\bar{X} \pm SD$	General medicine units (n=45) $\bar{X} \pm SD$		
- Assessment	2.3 ± 0.76	1.80±0.58	1.69 ± 0.67	10.1	< 0.001**
- Planning	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	-----	-----
-Implementation	19.18 ± 3.61	17.36 ± 3.37	15.47 ± 3.66	12.7	<0.001**
- evaluation	2.88 ± 1.29	1.84 ± 1.07	1.80 ± 1.08	12.1	< 0.001**
- Total performance	24.88 ± 4.71	20.96 ± 4.26	18.16 ± 4.56	25.93	< 0.001**

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table(7) shows the Mean and standard deviation for Nurses performance in Studied Department at Benha University Hospitals . The result deduces that there was a highly statistical significant ($p < 0.001$), in the score of assessment, implementation, and evaluation, where the Mean and standard deviation for Nurses performance were increasing mainly in nurses of critical care units than general medicine units, and in nurses of general surgical care units than those of the general medicine units.

Table (8): Performance Levels Of Nurses performance in Studied Department at Benha University Hospitals.

Performance levels	Nurses performance In The Studied Department						Total participants (n=120)	X2	P
	Critical care units (n=50)		General surgical units (n=25)		General medicine units (n=45)				
	No	%	No	%	No	%			
-low performance (< 23)	0	00.0	10	40.0	24	53.3	34	28.3	36.49 ** < 0.001
- Average performance (23-45)	42	84.0	14	56.0	19	42.2	75	62.5	
-High performance (> 45)	8	16.0	1	4.0	2	4.4	11	9.2	

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (8) shows the comparison between Performance Score Level of Nurses performance in Studied Department at Benha University Hospitals. It shows a highly statistical significant difference ($p < 0.001$) as the highest percent of participants (62.5%) in average performance; where the most of them are working in critical care units. while the lowest percent of them (9.2%) in high performance where the most of them working in General medicine units .

Table (12): Relationship between Nurses performance and Nurses ages in Studied Department at Benha University Hospitals.

Performance levels	Age of Nurses In						X2	P value
	20 -		30 -		> 40			
	(n= 57)		(n= 21)		(n = 42)			
	N	%	N	%	N	%		
-low performance (< 23)	6	10.5	8	38.1	20	47.6	17.89	** <0.001
- Average performance (23-45)	44	77.2	11	52.4	20	47.6		
-High performance (> 45)	7	12.3	2	9.5	2	4.8		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (12) shows the relationship between Nurses performance and Nurses ages in Studied Department at Benha University Hospitals. It indicates a highly statistically significant difference ($p < 0.001$) between the studied group, as the highest percent of them (77.2%) was in 20-30 years who showed average performance. While the lowest percent of them was (4.8%) in more than 40 years who showed high performance.

Table (13): Relationship between Nurses performance and Nurses Marital status in Studied Department at Benha University Hospitals.

performance levels	Married (n= 103)		UnMarried (n = 17)		X2	P
	N	%	N	%		
-low performance (< 23)	30	29.1	4	23.5	16.35	** < 0.001
- Average performance (23-45)	68	66.0	7	41.2		
-High performance (> 45)	5	4.9	6	35.3		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (13) shows the relationship between Nurses performance and Nurses Marital status in Studied Department at Benha University Hospitals. It demonstrates a highly statistically significant difference ($p < 0.001$) between married and unmarried nurses regarding to the level of performance, as the highest percent (35.3%) of high performance group was unmarried, while the highest percent of low performance was in married group.

Table (14): Relationship between Nurses performance and Nurses Years of Experience in Studied Department at Benha University Hospitals.

Performance levels	Years of Experience of Nurses						X ²	P
	< 10 (n = 54)		10 - (n = 26)		> 20 (n = 40)			
	N	%	N	%	N	%		
-low performance (< 23)	7	13.0	8	30.8	19	47.5	15.95	** < 0.001
- Average performance (23-45)	43	79.6	14	53.8	18	45.0		
-High performance (> 45)	4	7.4	4	15.4	3	7.5		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (14) shows the relationship between Nurses performance and Nurses Years of Experience in Studied Department at Benha University Hospitals. The result shows a highly statistically significant difference ($p < 0.001$) in the performance in relation to the years of Experience, where the highest percent of them (79.6%) less than 10 years of Experience shows average performance, while the lowest percent of them (7.5%) more than 20 year of Experience shows a high performance .

Table (15) Correlation between wards organizational features of work environment as perceived by participants and Total Nurses performance in Studied Department at Benha University Hospitals.

organizational features	Nursing care performance	
	(r)	P
- Physical environment of the ward	0.65	< 0.001 **
- Professional Working Relationship	0.71	< 0.001 **
- Nurses' Influence over	0.31	> 0.05
- Ward Leadership	0.57	< 0.001 **
- Professional Nursing Practice	0.38	< 0.05*
- Job Satisfaction	0.40	< 0.05*
- Total	0.42	< 0.001 **

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (15) shows the correlation between wards organizational features of work environment as perceived by participants and total nurses performance in studied departments at Benha University Hospitals. It shows positive statistical significant correlation between Nurses performance in each of the following items of organizational features; Physical environment of the ward, professional working relationship, ward Leadership, professional nursing practice, job satisfaction, this mean that when the organizational feature increases also the nursing performance increases.

Table (16) Relationship between the organizational features of work levels & the nursing care performance levels provided by participants in the studied units

organizational features levels	Nurses performance levels						X ²	P
	Low level (n=34)		Average level (n=75)		High level (n=11)			
	N	%	N	%	N	%		
-Unsatisfactory features =37	13	38.2	19	25.3	5	45.5	10.35	* < 0.05
-Satisfactory features =65	14	41.2	46	61.3	5	45.5		
-Highly Satisfactory features =18	7	20.6	10	13.4	1	9.0		

(* A statistical significant difference $P \leq 0.05$ - ** A highly statistical significant difference $P \leq 0.001$)

Table (16) shows the relationship between the organizational features of work levels & the nursing care performance levels provided in the studied group. the results shows that there was statistical significant difference ($p < 0.05$) between the satisfactory level of organizational features and nurses performance level, as most of the average performance level (61.3%) was in average satisfactory organizational features level and also those of the high performance score (45.5%) were in the average level.

Table (11) shows the Comparison between evaluations of Nurses performance in Studied Department at Benha University Hospitals. The results shows that the highest percent in critical care units which seen as done completely (100%) in item was evaluate observations and changes from baseline, while the same item reported (100%) as not done in another two studied units .as far as the the item of evaluate continuation of plan of care on flow sheet was reported as not done in three studied units.

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Table(1) shows the distributions of study group according socio-demographic characteristics .the results indicates that the total study sample are(120) staff nurses the highest percent of them (41.7%) were working in the critical care units while the lowest percent of them (20.8%) were working in the general surgical care units .as regarding their age the highest percent of participants were(57%) ranged their age between 20-30 years old , while the lowest percent of them were(21%) ranged their age between 31-40 years old , in relation to marital status the majority of study sample (85.8%) were married ,while (14.2%) of them are unmarried. as regarding to years of experience the highest percent of participants (45%) ranged 1 -10 years of experience , while the lowest percent of participants (21.7%) ranged between 10-20 years of experience .

Table (2) shows the Mean and standard deviation of the organizational features of Nursing work environment score as perceived by the participants in the studied departments at Benha University Hospitals. It can be seen that, there is a high statistically significant difference ($p < 0.001$) as related to physical environment, unit leadership and job satisfaction. as far as professional nursing practice, and nurses influence over ward management , timing of ward and patient events ,financial and human resource show statistical significant difference($p < 0.05$).while there is no statistical significant difference(>0.05) the professional nursing relationship between them.

Table (9) shows the Comparison between assessments of Nurses performance in Studied Department at Benha University Hospitals. The finding shows that the most of critical care units(21%) reported the item of Complete assessments for patient with patient or his family and other health care providers as not done ,while the highest percent (100%,)respectively of the two stated groups of nursing staff on General surgical units and General medicine units were reported the item of The nurse Prioritizes data collection activities that based on the patient immediate condition, or anticipated needs of the patient as not done. This item also only item done completely in critical care units was(86%) .while the same item was reported as done completely in critical care units with high percentg (86%) .

Table (10) shows the Comparison between Implementation of Nurses performance in Studied Department at Benha University Hospitals. Findings of the table shows that the most of critical care units (72%) reported the item of Wash her hand before any procedure as not done, while the highest percent (96% and 77.8%,) respectively of the two stated groups of staff nurses General surgical units and General medicine units were reported the item of the respect of the patient privacy, Perform daily hygienic needs for cleanliness and acceptable appearance as not done. While the highest percent (100%) in critical care units was reported as done completely as in the following items administer prescribed medications according to hospital policies. Uses side rails if needed, Perform daily hygienic needs for cleanliness and acceptable appearance, . Implements\ medical plan, including review of labs, Give special care to pressure or irritated area (massage_ back rub with ointment) , as far as the highest percent which reported as done completely was(92% and 100%) respectively of the two stated groups of staff nurses General surgical units and General medicine units in items of Collaborates with other health care provider to implement the plan, Implements\ medical plan, including review of labs.

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