

## RESULTS

### Comparison Between The Nurses Groups And Administrative Group As Regarding frequency of occurrence Risk Factors Of CHD:

**Table (1): Age distribution among the studied groups:**

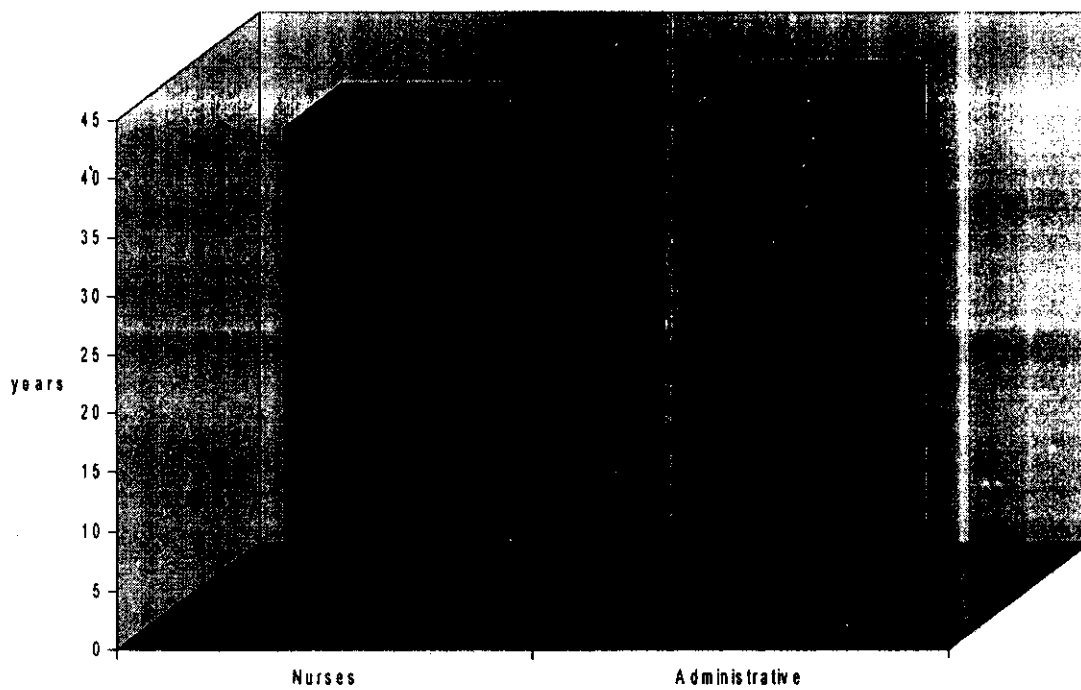
G1 = Nurses = 200

G2= Administrative group = 200

Group Age in years	Nurses (n. = 200)		Administrative (n. =200)		Total (n. =400)		Z	P
	No.	%	No.	%	No.	%		
30 -	53	26.5	50	25.0	103	25.8	1.21	>0.05
40 -	109	54.5	103	51.5	212	53.0	1.21	>0.05
≥ 50 - 56	38	19.0	47	23.5	85	21.3	1.21	>0.05
Total	200	100.0	200	100.0	400	1000		
$\bar{X} \pm S.D.$	41.6 ± 5.7		43.5±4.5					
	t		1.85				p> 0.05	

Table (1) shows that the age of both groups of the study is properly matched. The difference between both groups is statistically insignificant.

Chart (1) mean of ages of the study group



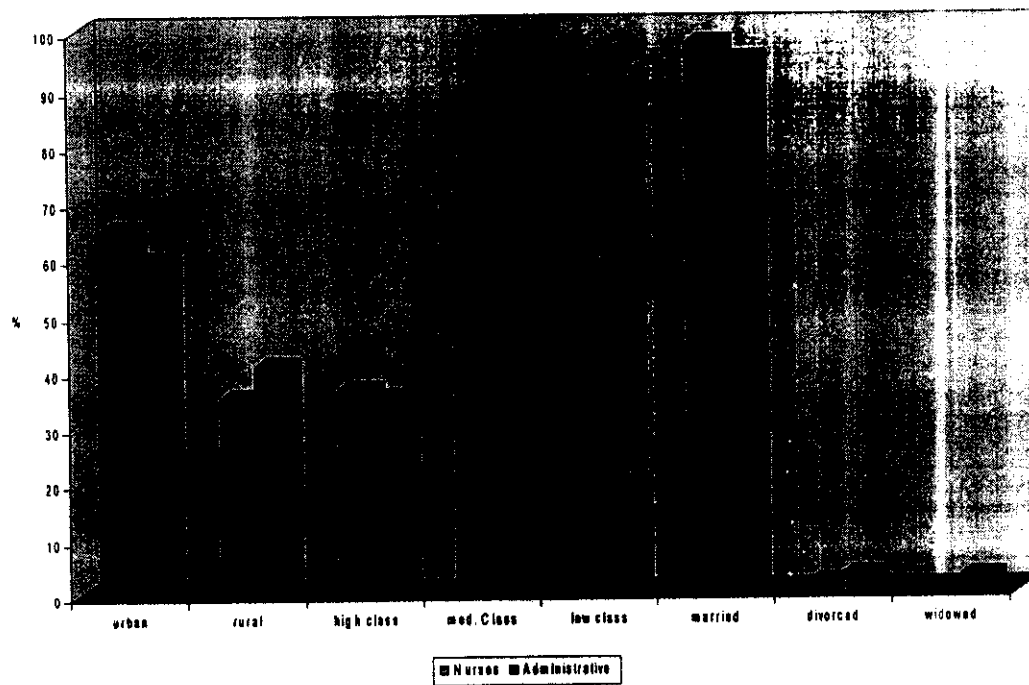
**Table (2): Some sociodemographic characteristics of the nurse group first group in comparison with the administrative group.**

*Socio Demographic factors & residence	Nurses (n. =200)		Administrative (n. =200)		Total (n. =400)		$\bar{X}^2$	P
	No.	%	No.	%	No.	%		
<b>Residence</b>								
Urban	119	59.5	130	65.0	249	62.3	1.29	>0.05
Rural	81	40.5	70	35.0	151	37.7		
<b>Social class</b>								
High	70	35.0	73	36.5	130	32.5	0.84	>0.05
Medium	91	45.5	95	47.5	179	44.8		
Low	39	19.5	32	16.0	91	22.8		
<b>Marital status</b>								
Married	189	94.5	195	97.5	363	90.75	2.38	>0.05
Divorced or separated	6	3.0	3	1.5	22	5.5		
Widowed	5	2.5	2	1.0	15	3.75		

Table (2) shows that the differences between the studied groups regarding (residence, social class and marital status) are statistically insignificant. With proper matching between them.

\* According to modified *Fahmy and El Sherbini (1983)*

Chart (2) some sociodemographic characteristics of the study groups

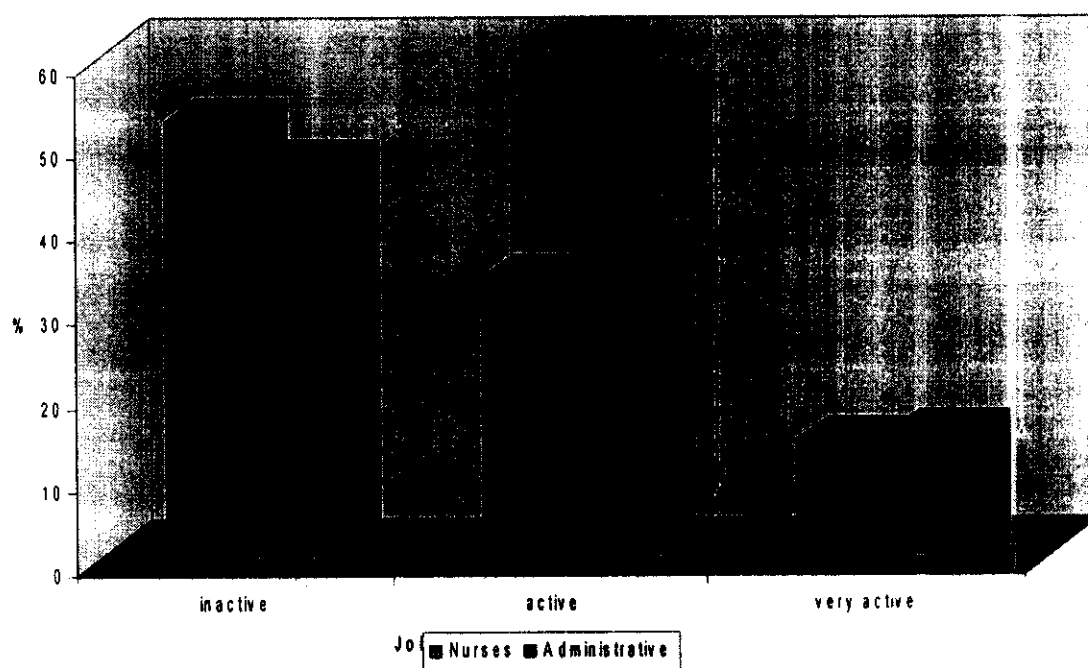


**Table (3): Distribution of nurses group in comparison with the administrative group according to physical activity :**

Group Activity	Nurses		Administrative		Total		$\bar{X}^2$	P
	No.	%	No.	%	No.	%		
In active	95	47.5	105	52.5	200	50.0	1.02	>0.05
Active	75	37.5	67	33.5	142	35.3		
Very active	30	15.0	28	14.0	58	14.5		
Total	200	100.0	200	100.0	400	100.0		

Table (3): Shows that the differences between the two groups regarding the physical activity is statistically insignificant.

Chart (3) distribution of the study groups according to physical activity



**Table (4): Distribution of the nurse group in comparison with the administrative group according to the level of psychological Demand/control (D/C)**

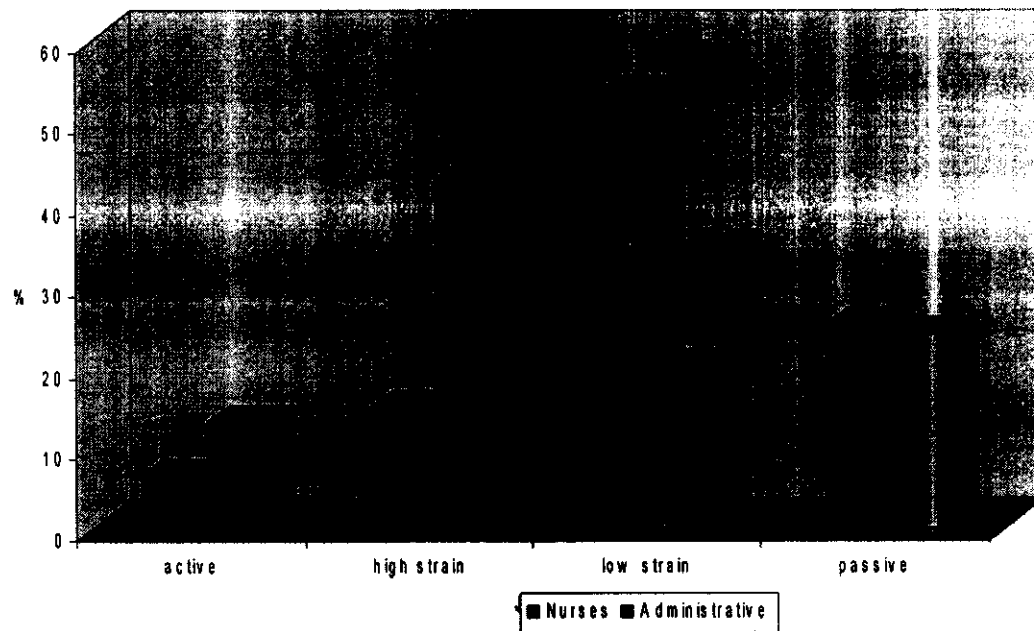
Group Level of D/C	Nurses		Administrative		Total		Z	P
	No.	%	No.	%	No.	%		
Active job	26	13.0	13	6.5	39	9.8	2.19	<0.05
High strain job	86	43.0	30	15.0	116	29.0	6.17	<0.001
Low strain job (relaxed)	40	20.0	107	53.5	147	36.8	6.95	<0.001
Passive job	48	24.0	50	25.0	98	24.0	0.23	>0.05
Total	200	100.0	200	100.0	400	100.0		

$$X^2 = 61.95 \quad p < 0.001$$

Table (4) showing that more than half of the nurses group perform high strain and active job while only one fifth of the administrative group carry out these type of jobs.

\* according to *Karasek, (1990)*

Chart (4) distribution of the study groups according to level of psychological (D/C)





**Table (5): Level of psychological D/C among nurse group according to type of work.**

Level of D/C	Type of Work	I.C.U.		Surgical (operative)		Pediatric		Medical		Outpatients		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Active job		4	16.0	7	14.0	6	12.0	3	6.0	6	24.0	26	13.0
High strain job		15	60.0	26	52.0	22	44.0	19	38.0	4	12.0	86	43.0
Low strain job (relaxed)		3	12.0	9	18.0	10	20.0	10	20.0	8	32.0	40	20.0
Passive job		3	12.0	8	16.0	12	24.0	18	32.0	7	28.0	48	24.0
Total		25	12.5	50	25	50	25	50	25	25	12.5	200	100.0

Table (5) showing about two third of I.C.U., half of operating and two fifth of paediatric nurses were in high strain job.

**Table (6): Distribution of the studied groups according to systolic blood pressure level.**

Group Blood pr. Level	Nurses (n. =200)		Administrative (n. =200)		Total (n. =400)		Z	P
	No.	%	No.	%	No.	%		
Systolic Bl. Pressure (mmHg)								
< 140	161	80.5	180	90.0	341	85.2	2.68	< 0.01
≥ 140	39	19.5	20	10.0	59	14.8	2.68	< 0.01

$$X^2 = 7.18$$

$$p < 0.001$$

**Table (7): Distribution of the studied groups according to diastolic blood pressure level :**

Group Blood pr. Level	Nurses (n. =200)		Administrative (n. =200)		Total (n. =400)		Z	P
	No.	%	No.	%	No.	%		
Diastolic Bl. P.								
< 90	151	75.5	171	85.5	322	80.5	2.52	< 0.01
≥ 90	49	24.5	29	14.5	78	19.5	2.52	< 0.01

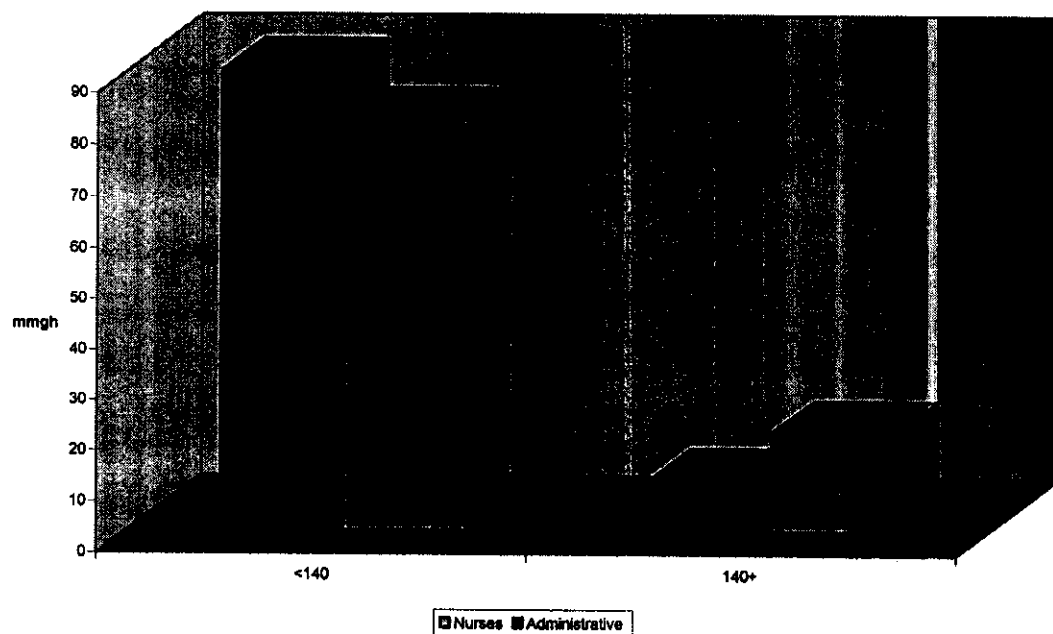
$$X^2 = 6.37$$

$$P < 0.001$$

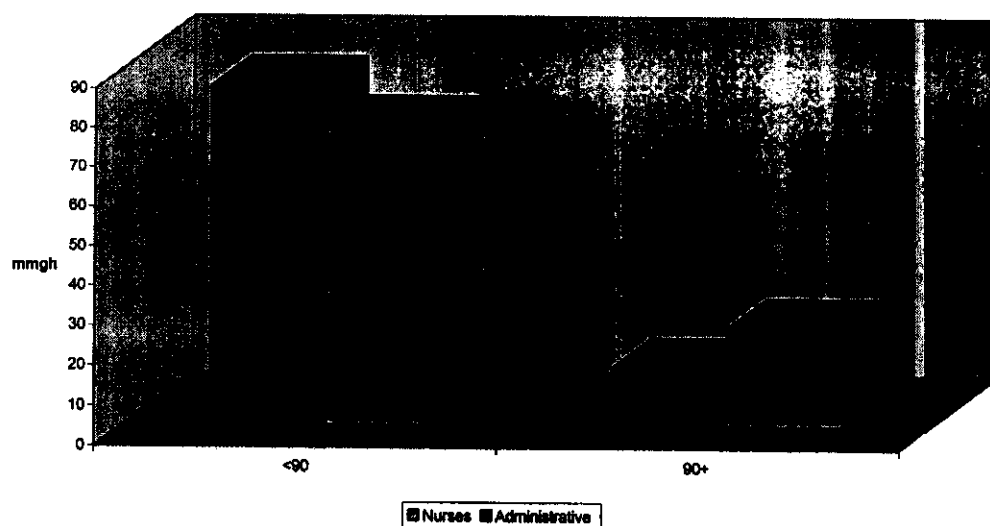
According to *WHO, (2002)*

Tables (6 & 7) Show about one fifth of the nurse group had systolic hypertension. Also about one quarter of them had diastolic hypertension. The difference is of statistical significant between the nurse group and administrative group.

**Chart (5) distribution of the study groups  
according to systolic BP**



**Chart (6) distribution of the study groups  
according to Diastolic BP**



**Table (8): Body mass index for the nurse group in comparison with the administrative group.**

Group *BMI	Nurses (n. = 200)		Administrative (n. = 200)		Total (n. = 400)		Z	P
	No.	%	No.	%	No.	%		
Normal 18.5-	51	25.5	95	47.5	146	36.5	3.64	<0.001
Over weight 25-	71	35.5	51	25.5	122	30.5	1.81	> 0.05
Obese ≥ 30	78	39.0	54	27.0	132	33.0	2.09	<0.05

$$X^2 = 20.9$$

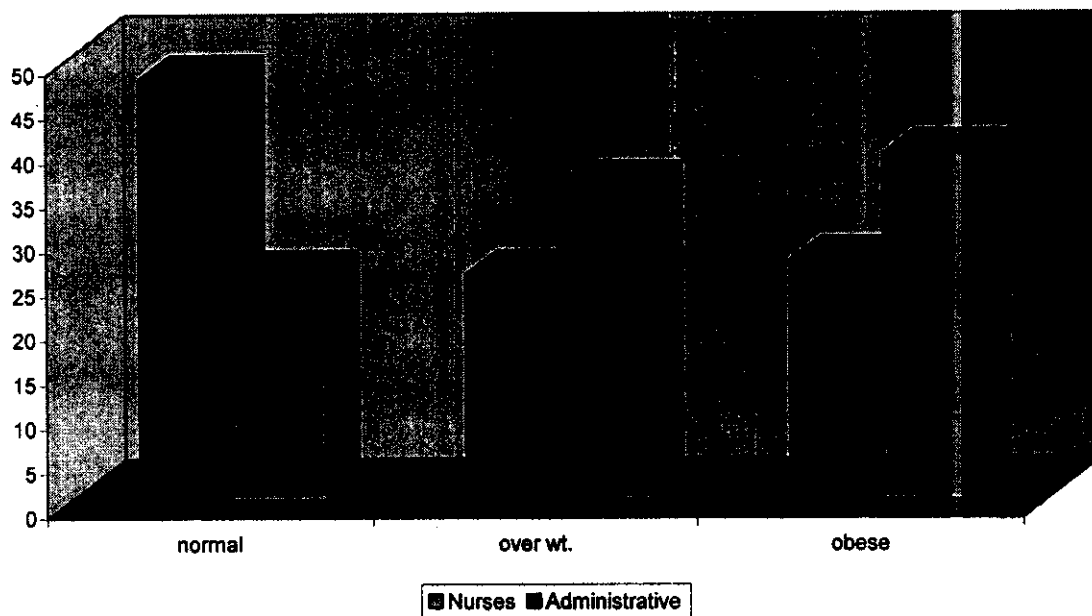
$$p < 0.001$$

Table (8): Shows that about three quarter of the nurse group were obese or over weight in comparison with the administrative group.

The difference is statistically significant

\* according to *WHO, (2000)*

**Chart (7) distribution of the study groups  
according to BMI**



**Table (9): Comparison between the nurse group and the administrative group as regarding waist hip ratio.**

Group	Nurses (n. = 200)		Administrative (n. = 200)		Total (n. = 400)		Z	P
	No.	%	No.	%	No.	%		
*WHR								
WHR								
Normal								
< 0.95	151	75.5	167	83.5	318	79.5	1.98	<0.05
Trunk obesity								
≥ 0.95	49	24.5	33	16.5	82	20.5	1.98	<0.05

$$X^2 = 3.93$$

$$p < 0.05$$

Table (9) showing that about one quarter of the nurse group have trunkal obesity in comparison with the other group. The difference is statistically significant.

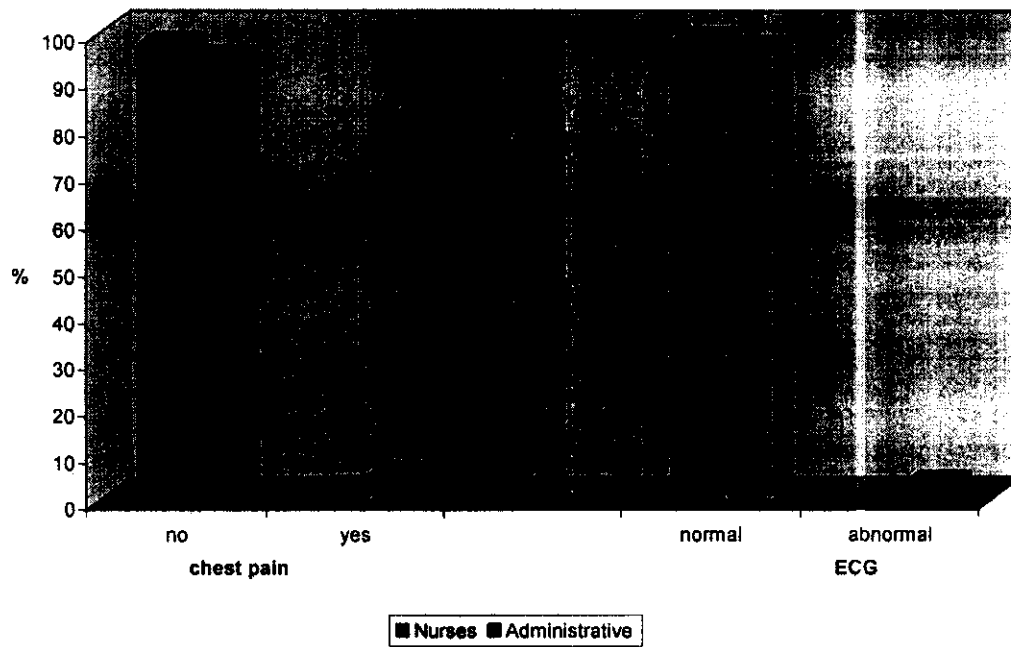
\* according to *Wing, (2002)*

**Table (10): Comparison between the nurse group and the administrative group regarding chest pain and ECG changes.**

Group Variable	Nurses (n. =200)		Administrative (n. =200)		Total (n. =400)		$\bar{X}^2$	P
	No.	%	No.	%	No.	%		
Chest pain								
No.	189	94.5	195	97.5	384	96.0	2.61	> 0.05
Yes	11	5.5	5	2.5	16	4.0		
ECG								
Normal	193	96.5	197	98.5	390	97.5	1.64	p > 0.05
Abnormal	7	3.5	3	1.5	10	2.5		

Table (10): Clearly shows statistically insignificant difference between the studied groups as regard the presence of chest pain or abnormal ECG changes.

Chart (8) distribution of the study groups according to cardiac finding





**Table (11): Distribution of some laboratory findings among the nurses group in comparison with the administrative group.**

St. Group Variable	Nurse (n. =200)		Administrative (n. =200)		Total (n. =400)		Z	P
	No.	%	No.	%	No.	%		
Cholesterol								
< 200	163	81.5	182	91.0	345	86.2	2.75	<0.01
≥ 200	37	18.5	18	9.0	55	13.8	2.75	<0.01
LDL								
< 190	160	80.0	182	91.0	342	85.5	3.12	<0.01
≥ 190	40	20.0	18	9.0	58	14.5	3.12	<0.01
HDL								
≥ 35	134	67.0	174	87.0	308	77.0	4.75	< 0.00
< 35	66	33.0	26	13.0	92	23.0	4.75	<0.001
TC/HDL								
< 4.5	129	64.5	172	86.0	301	75.2	4.98	<0.001
≥ 4.5	71	35.5	28	14.0	99	24.8	4.98	<0.001
TG								
< 150	137	68.5	173	86.5	324	81.0	2.04	<0.05
≥ 150	63	31.5	27	13.5	76	19.0	2.04	<0.05
Uric acid								
< 7	183	91.5	193	96.5	324	94.0	2.11	<0.05
≥ 7	17	8.5	7	3.5	24	6.0	2.11	<0.05
F. bl. Sugar								
< 140	165	82.5	183	91.5	358	89.5	2.68	<0.01
≥ 140	35	17.5	17	8.5	42	10.5	2.68	<0.01

Table (11): showing that about one fifth of the nurse group had high cholesterol, LDL and FBS levels. About one third of the nurse group had higher TC/HDL and TG. Also, about one tenth of nurse group had higher uric acid levels. As regard HDL level about one third of the nurse group had lower level in comparison to the administrative group. The differences between both groups regarding all variables are statistically significant.

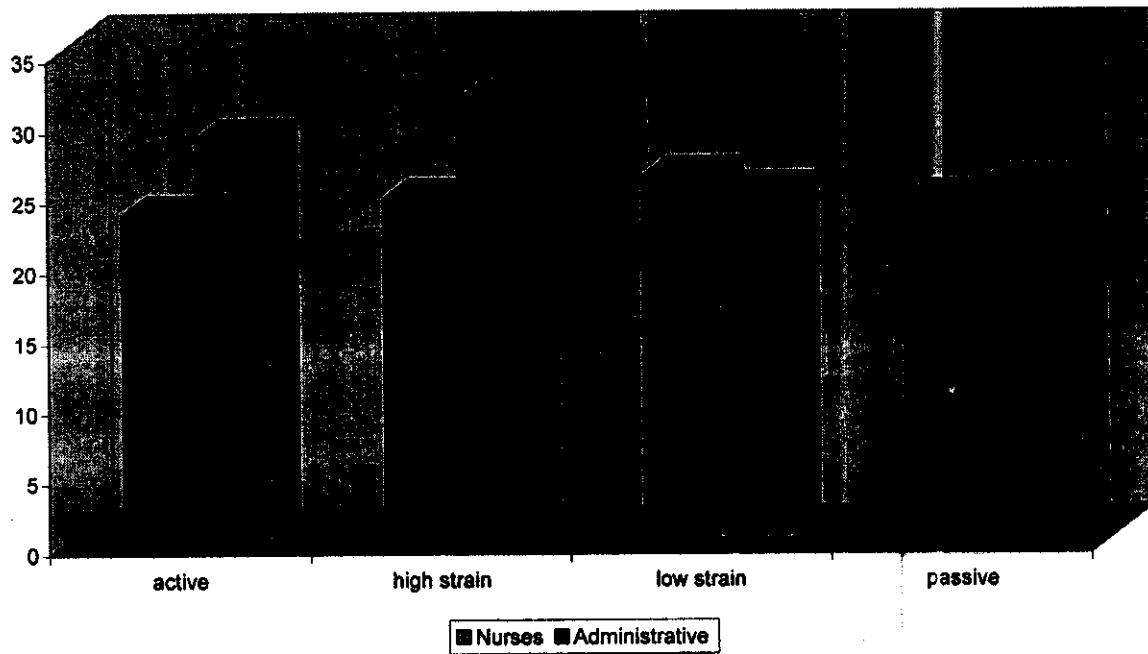
\* According to *Steinberg, (1999)*

**Table (12): Mean and standard deviation of BMI according to the level of psychological D/C**

BMI Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$X \pm SD$		
Active job	26	28.6 $\pm$ 2.8	13	23.2 $\pm$ 2.2	6.58	<0.001
High strain job	86	31.2 $\pm$ 2.6	30	24.3 $\pm$ 3.1	10.92	<0.001
Low strain job (relaxed)	40	24.7 $\pm$ 2.1	107	25.8 $\pm$ 6.3	1.59	>0.05
Passive job	48	25.1 $\pm$ 3.4	50	24.1 $\pm$ 3.9	1.35	>0.05
Total	200	28.1 $\pm$ 3.1	200	23.4 $\pm$ 2.3	17.22	<0.001

Table (12) shows that the mean values of BMI among nurses with high strain and active job, were higher than that values among the administrative group. These differences are statistically significant.

**Chart (9) means of BMI of the study group according to level of D/C**

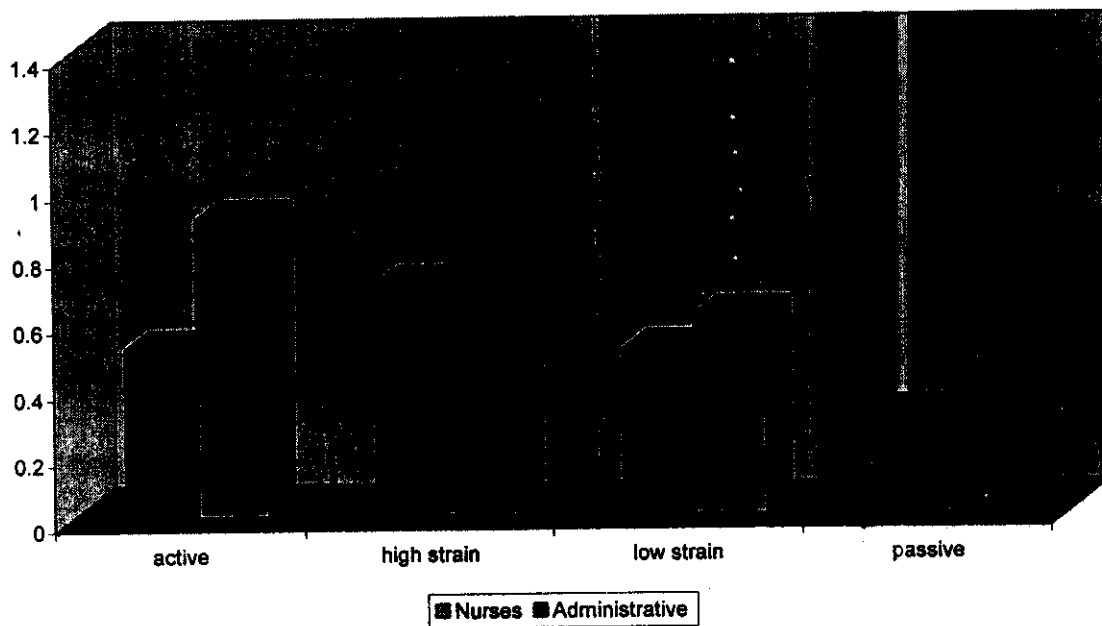


**Table (13): Mean and standard deviations of waist hip ratio (WHR) according to the level of psychological D/C.**

WHR Level of D/C	Nurses		Administrative		t	P
	No.	X $\pm$ SD	No.	X $\pm$ SD		
Active job	26	0.9 $\pm$ 0.5	13	0.51 $\pm$ 0.48	2.36	<0.05
High strain job	86	1.3 $\pm$ 0.7	30	0.7 $\pm$ 0.3	6.43	<0.001
Low strain job (relaxed)	40	0.6 $\pm$ 0.3	107	0.5 $\pm$ 0.4	1.63	>0.05
Passive job	48	0.4 $\pm$ 0.2	50	0.3 $\pm$ 0.3	1.95	>0.05
Total	200	0.89 $\pm$ 0.4	200	0.48 $\pm$ 0.4	10.25	<0.001

Table (13), shows that the mean values of WHR among nurses with high strain and active jobs were higher than that values among the administrative group. These differences between both groups are statistically significant.

**Chart (10) means of WHR of the study group  
according to level of D/C**

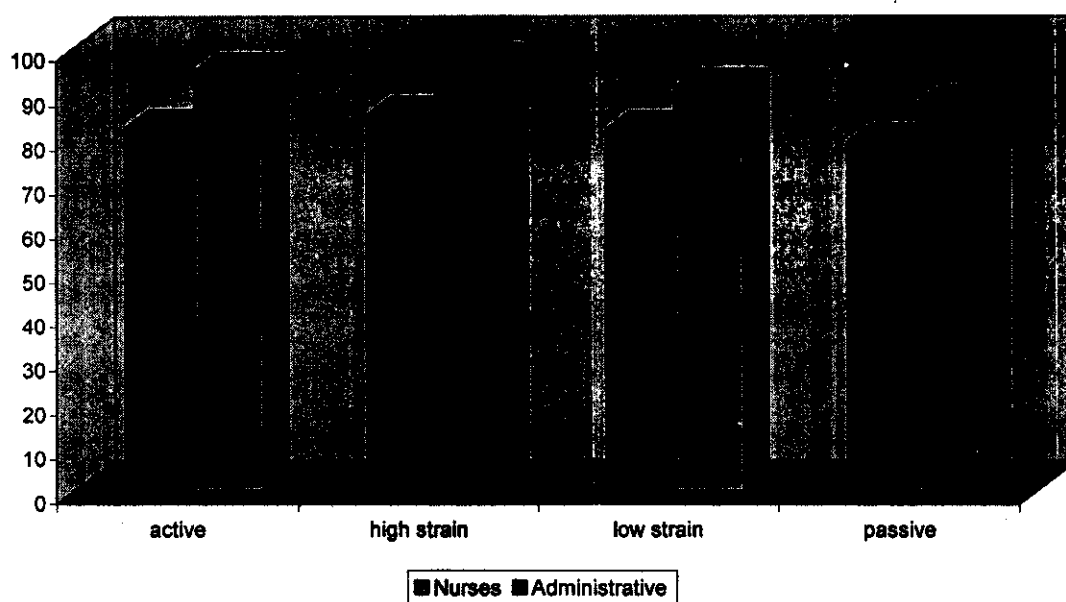


**Table (14): Means and standard deviations of Diastolic blood pressure regarding level of D/C among the studied group.**

Diastolic Bl. p. Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	94.8±3.4	13	82.3±5.6	6.04	<0.001
High strain job	86	96.9 ± 4.9	30	85.1±9.2	11.47	<0.001
Low strain job (relaxed)	40	91.2±11.6	107	81.8±9.4	1.17	>0.05
Passive job	48	87.4±4.1	50	78.9±9.3	0.93	>0.05
Total	200	93.2±8.4	200	81.6 ±7.3	14.74	<0.001

Table (14), illustrates that mean values of diastolic blood pressure among nurses with high strain and active Jobs were higher than that values of the administrative group. These differences are statistically significant.

**Chart (11) means of Diastolic BP of the study group  
according to level of D/C**



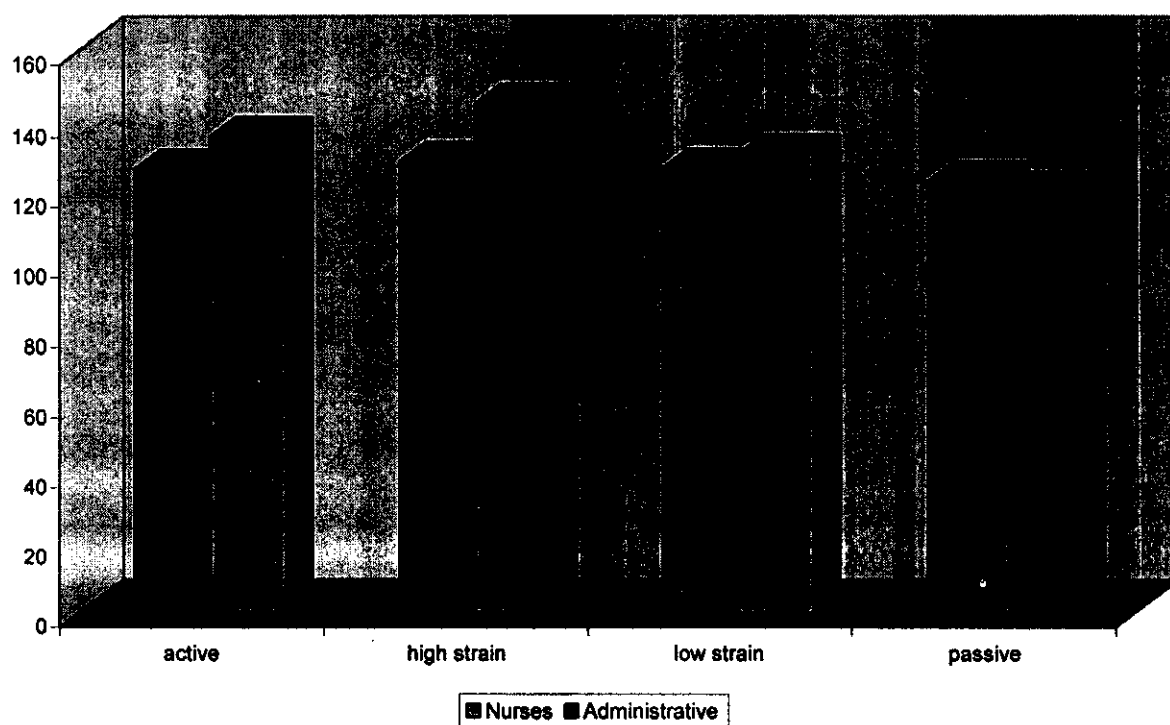
**Table (15): Means and standard deviations of systolic blood pressure according to level of D/C among the studied group.**

Systolic Bl. P.  Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	136.2 $\pm$ 7.3	13	126.9 $\pm$ 5.8	4.32	<0.001
High strain job	86	145.2 $\pm$ 11.7	30	129.1 $\pm$ 13.5	5.81	<0.001
Low strain job (relaxed)	40	131.1 $\pm$ 10.3	107	127.1 $\pm$ 13.4	1.92	>0.05
Passive job	48	120.4 $\pm$ 11.6	50	123.3 $\pm$ 16.5	1.22	>0.05
Total	200	135.3 $\pm$ 9.3	200	126.4 $\pm$ 11.3	3.99	<0.001

This table shows that the mean values of systolic blood pressure among nurses with high strain and active jobs are statistically significantly higher than that values of the second group.



Chart (12) means of systolic BP of the study group according to level of D/C



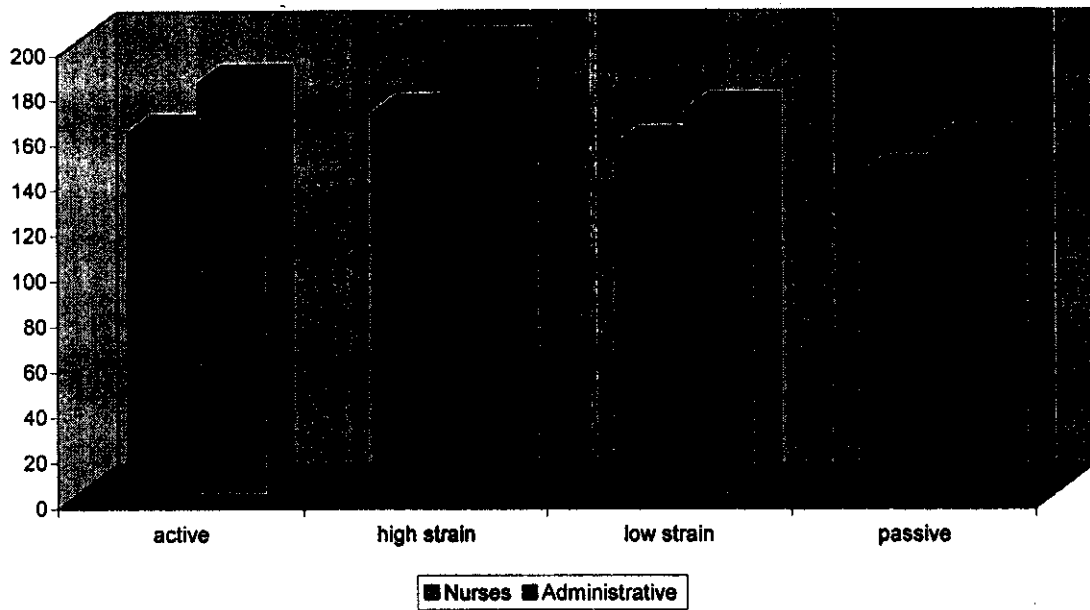
**Table (16): Mean and standard deviations of serum cholesterol according to level of D/C.**

Cholesterol Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	181.9±42.7	13	159.7 ± 41.9	0.85	> 0.05
High strain job	86	198.3 ±20.4	30	168.3 ± 39.2	4.01	<0.001
Low strain job (relaxed)	40	168.9±36.9	107	154.1±48.4	1.98	>0.05
Passive job	48	154.6±35.8	150	140.5 ± 36.3	1.94	>0.05
Total	200	179.8±31.4	200	153.2±37.3	7.71	<0.001

Normal values 150-200mg/100ml (*Holvoet et al., 1998*)

This table shows that the mean values for serum cholesterol among high strain job nurses are significantly higher than that among administrative group.

**Chart (13) means of S.cholesterol of the study group  
according to level of D/C**



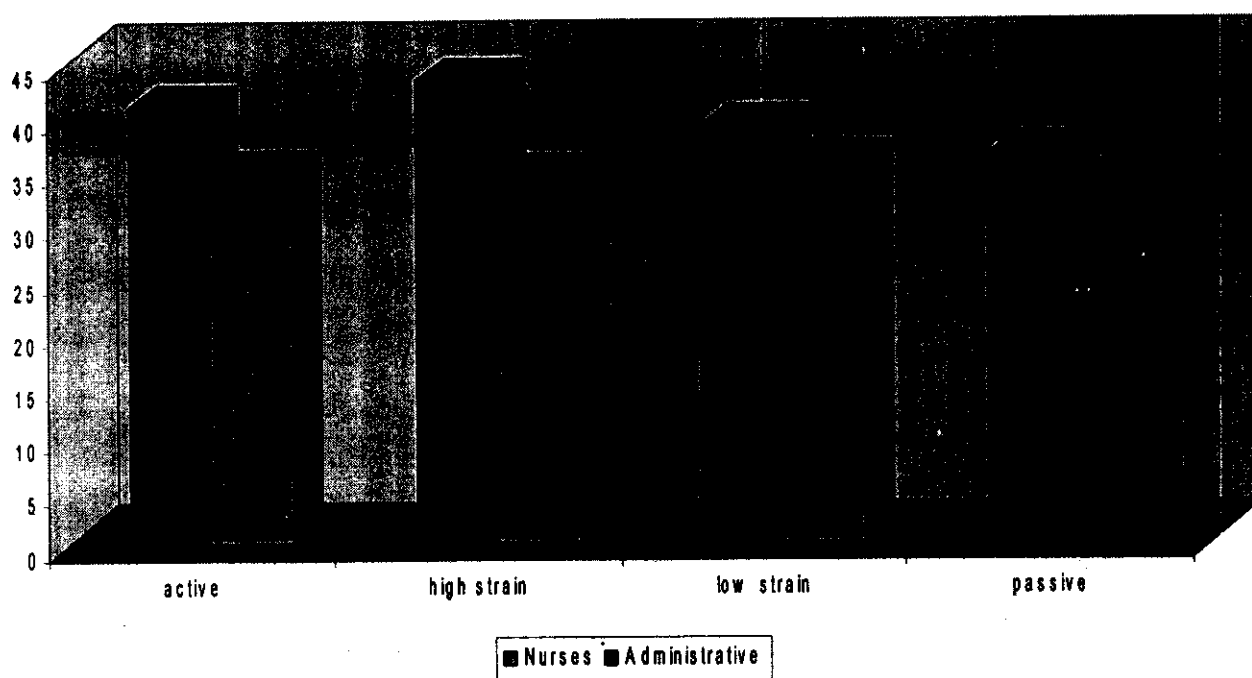
**Table (17): Mean and standard deviation of HDL among the studied group according to the level of D/C:**

HDL Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	34.6±6.8	13	40.8±5.9	2.94	<0.01
High strain job	86	34.1±10.5	30	43.1±5.3	6.04	<0.001
Low strain job (relaxed)	40	35.4±9.8	107	38.8±8.9	1.92	>0.05
Passive job	48	33.4±7.1	50	36.1±6.9	1.91	>0.05
Total	200	33.5±7.3	200	38.2±6.1	6.98	<0.001

Normal values 35-60 mg/100ml (*Stein, 1997*)

This table, shows that the mean values of HDL of nurses with high strain and active job were lower than that values of HDL among the administrative group. These differences are statistically significant between them, however, all are within normal values.

Chart (14) means of HDL of the study group  
according to level of D/C



**Table (18): Mean and standard deviation of the ratio of TC/HDL among the studied group as regarding level of D/C.**

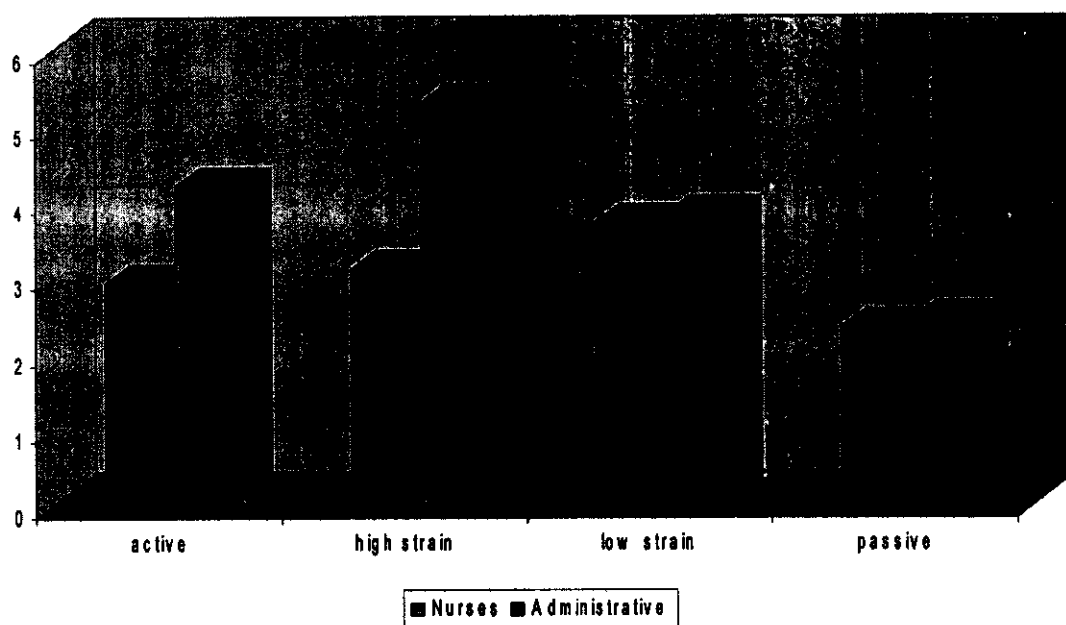
TC/HDL Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	4.2 $\pm$ 2.1	13	2.9 $\pm$ 1.8	2.01	<0.05
High strain job	86	5.3 $\pm$ 2.8	30	3.1 $\pm$ 1.3	5.73	<0.001
Low strain job (relaxed)	40	3.8 $\pm$ 2.9	107	3.7 $\pm$ 2.4	0.2	>0.05
Passive job	48	2.4 $\pm$ 2.1	50	2.3 $\pm$ 1.9	0.25	>0.05
Total	200	4.3 $\pm$ 1.9	200	3.5 $\pm$ 1.08	5.18	<0.001

Normal value of TC/HDL is 4.0mg/100ml or below in women

(Reed et al., 1999)

Table (18) shows that the mean values of TC/HDL ratio among nurses with high strain job and active job were higher than that values of the second group. the differences are statistically significant.

Chart (15) means of TC/HDL of the study group according to level of D/C



**Table (19): Comparison between the nurse group and administrative group regarding mean values of triglyceride and level of D/C.**

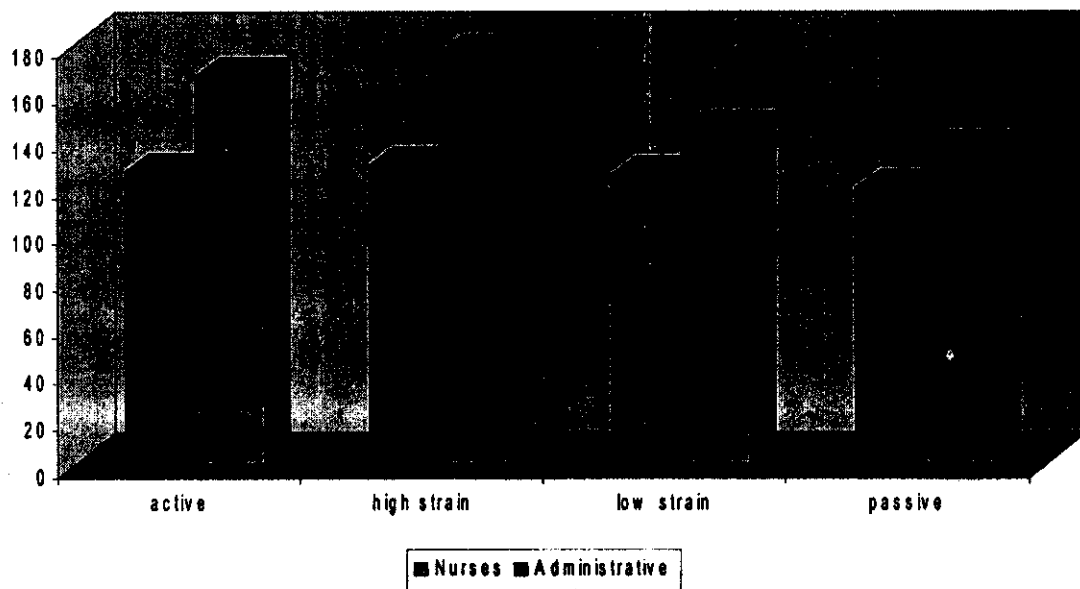
Triglyceride Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	166.9±73.2	13	125.8±54.8	1.97	>0.005
High strain job	86	176.3±64.1	30	128.2±29.1	5.52	<0.001
Low strain job (relaxed)	40	143.4±58.4	107	124.1±46.9	1.88	>0.05
Passive job	48	135.4±39.8	150	118.4±45.2	1.98	>0.05
Total	200	158.7±47.6	200	123.4±32.9	8.63	<0.001

Normal value up to 150mg/100ml (*Fossati, 1992*)

Table (19) shows that the mean values of triglyceride of high strain job nurse was higher and exceeds normal values on comparison with that of the administrative group. The difference is of statistical significant.



**Chart (16) means of Triglyceride of the study group  
according to level of D/C**



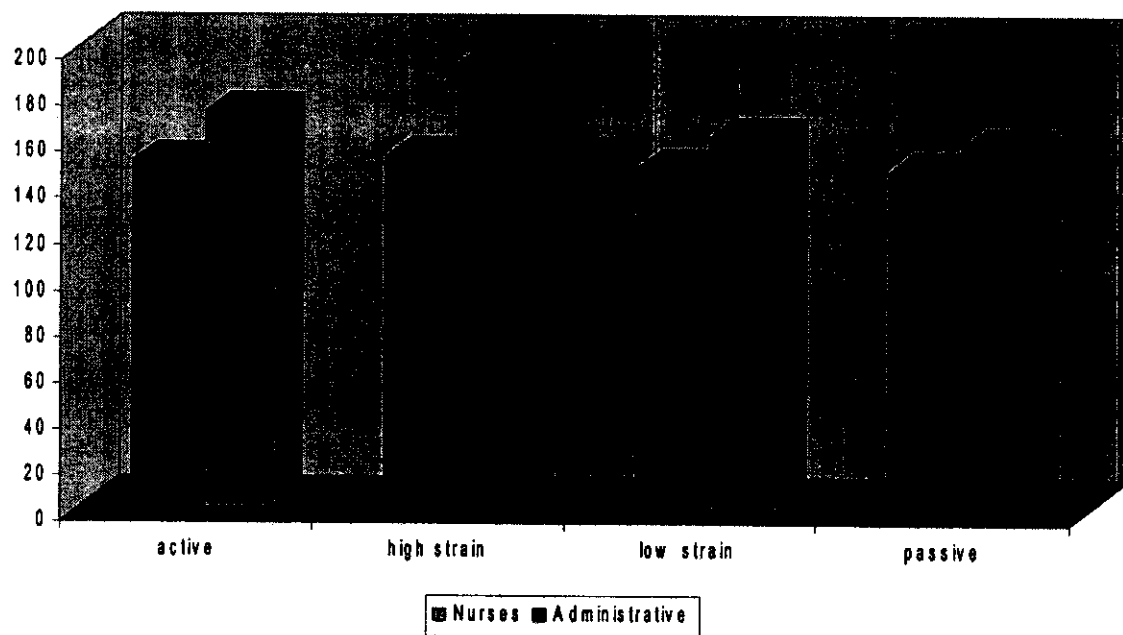
**Table (20): Comparison between nurse group and administrative group regarding mean values of LDL and level of D/C**

LDL Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	172.4±37.1	13	151±36.2	1.72	>0.005
High strain job	86	193.4±19.4	30	152.8±31.8	6.58	<0.001
Low strain job (relaxed)	40	161.6±38.9	107	148.3±31.1	1.94	>0.05
Passive job	48	157.9±27.3	50	146.9±28.9	1.94	>0.05
Total	200	175.8±29.8	200	148.8±32.1	8.72	<0.001

Normal value 100-190 mg/100ml. (Steinberg et al., 1997)

Table (20), shows that mean values of LDL among nurses with high strain jobs was higher than that of the administrative group. The differences between both groups are statistically significant.

**Chart (17) means of LDL of the study group  
according to level of D/C**



**Table (21): Mean and standard deviation of serum uric acid according to the level of D/C among the studied group.**

Uric acid Level of D/C	Nurses		Administrative		t	P
	No.	$\bar{X} \pm SD$	No.	$\bar{X} \pm SD$		
Active job	26	6.1±1.9	13	4.77±2.1	1.93	> 0.05
High strain job	86	6.9±2.9	30	4.3±2.8	3.34	<0.001
Low strain job (relaxed)	40	5.1±2.8	107	4.1±2.9	1.91	>0.05
Passive job	48	4.17±2.1	50	3.9±2.4	0.59	>0.05
Total	200	5.78±1.9	200	4.21±2.1	8.3	<0.001

Normal value in women 2-6 mg/100ml (*Caraway, 1996*)

This table, shows that the mean values of uric acid among high strain nurse was of higher values of statistical significance compared with values of high strain administrative group.

Chart (18) means of S. uric acid of the study group according to level of D/C

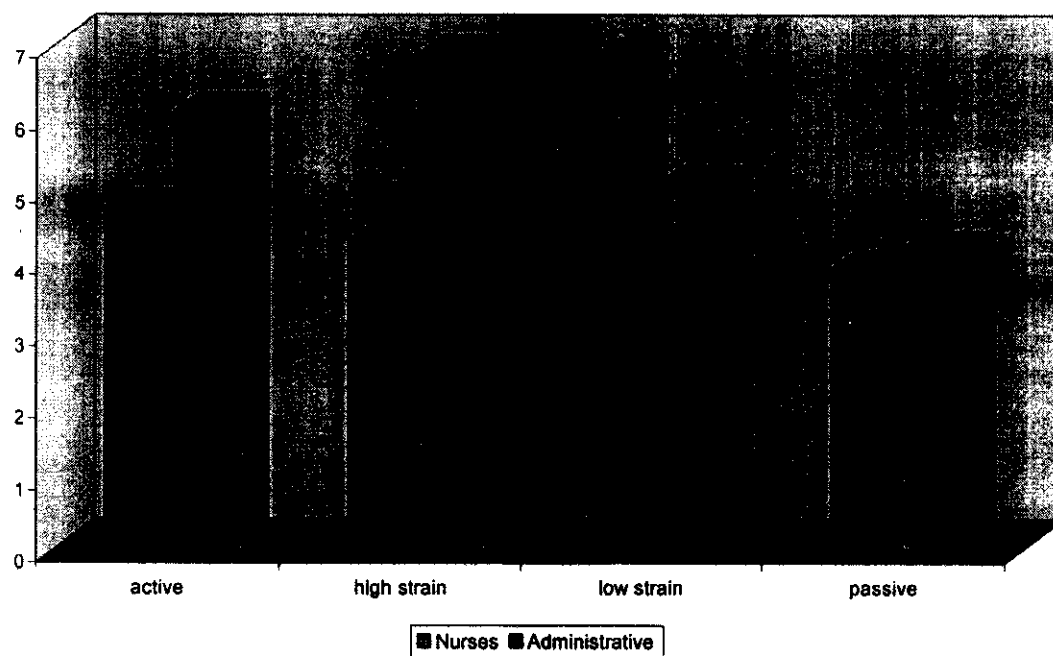


Table (22): Correlation coefficient (r ) and probability value (p) between BMI and related risk factors:

Risk factor	BMI	
	r	p
Age	0.29	<0.05
Night shift	0.24	>0.05
Over time work	0.25	<0.05
Serum cholesterol	0.29	<0.05
Serum triglyceride	0.21	>0.05
Serum LDL	0.22	>0.05
Serum HDL	0.17	>0.05
Serum TC / HDL ratio	0.23	>0.05
Serum F.B.L.S.	0.06	> 0.05
Systolic hypertension	0.02	>0.05
Diastolic hypertension	0.06	> 0.05
Waist hip ratio (WHR)	0.49	<0.05
Serum uric acid	0.07	>0.05

Table (22): Clearly shows direct correlation of statistical significance between the measurement of BMI and the following risk factors, waist hip ratio, Age, nurses with over time work and serum cholesterol levels.

**Table (23): Regression analysis of variables related to BMI among the studied group:**

<b>Variable</b>	<b>Reg. Coefficient</b>	<b>F value</b>	<b>P</b>
Age	4.19	61.3	0.001
Serum cholesterol	6.17	11.8	0.001

Constant (intercept) 49.15

Table (23) shows that the best predictors of BMI were Age, as well as hypercholesterolemia. So their higher values were associated with increased BMI.

**Table (24): Correlation coefficient (r) and probability value (p) between waist hip ratio (WHR) and related risk factors**

	WHR	
Risk factor	r	p
Age	0.14	>0.05
Night shift	0.21	>0.05
Over time work	0.24	>0.05
Serum cholesterol	0.25	<0.05
Serum triglyceride	0.17	>0.05
Serum LDL	0.20	>0.05
Serum HDL	-0.11	>0.05
Serum TC/HDL ratio	-0.13	>0.05
Serum F.B.L.S.	0.07	>0.05

Table (24), shows a direct correlation of statistical significance between higher waist hip ratio and hypercholesterolemia.



**Table (25): Correlation coefficient (r ) and probability value (p ) of blood pressure and related risk factor among the studied group.**

Bl. Pr. Risk factor	Systolic		Diastolic	
	r	P	r	p
Age	0.25	<0.05	0.14	> 0.05
Over time work	0.16	>0.05	0.16	> 0.05
Night shift	0.1	>0.05	0.1	> 0.05
Serum cholesterol	0.4	<0.05	0.36	< 0.05
Serum LDL	0.36	<0.05	0.3	< 0.05
Serum HDL	-0.13	>0.05	-0.12	> 0.05
Serum TC/HDL ratio	0.35	<0.05	0.33	< 0.05
Serum TG	0.33	<0.05	0.29	< 0.05
Serum uric acid	0.1	> 0.05	0.08	> 0.05
BMI	0.06	> 0.05	0.05	> 0.05
WHR	0.04	> 0.05	0.01	> 0.05
Serum F.B.L.S	0.01	> 0.05	0.06	> 0.05

Table (25), shows that there is a direct correlation of statistical significance between systolic as well as diastolic blood pressure and serum cholesterol level, serum LDL level, serum TC/HDL and serum triglyceride level. Also, there is a direct correlation of systolic blood pressure and age.

**Table (26): Regression analysis of variables related to systolic blood pressure**

Variable	Reg. Coeff	F vlaue	P
Stress	6.43	61.73	<0.001
Serum cholesterol	2.19	34.54	<0.001

Constant (intercept) 49.17

**Table (27): Regression analysis of variable related to diastolic BP**

Variable	Reg. Coeff	F value	P
Stress	4.19	45.81	<0.001
Serum cholesterol	1.89	29.312	<0.001

Constant (intercept)= 47.98

Tables (26 & 27); show that the best predictors of systolic and diastolic blood pressure were, stress and serum cholesterol level.

High values of these predictors were associated with systolic and diastolic hypertension.

**Table (28): Correlation coefficient (r ) and probability value (p ) between total serum cholesterol and related risk factors.**

<b>Risk factor</b>	<b>Serum cholesterol</b>	
	<b>R</b>	<b>P</b>
Age	0.15	> 0.05
Night shift	0.23	> 0.05
Over time work	0.32	< 0.05
BMI	0.23	> 0.05
WHR	0.25	< 0.05
Serum F.B.L.S.	0.05	> 0.05
Stress	0.57	< 0.05

Table (28): Shows that there was a direct correlation of statistical significant between total serum cholesterol level and stress, nurses with over time work and WHR.

**Table (29): Regression analysis of variables related to total serum cholesterol level among the studied group.**

<b>Variable</b>	<b>Reg. Coefficient</b>	<b>F</b>	<b>P</b>
Stress	13.14	63.21	< 0.001
WHR	11.34	43.18	< 0.001

**Constant intercept 53.81**

It is clearly evident from table (29) that the best predictors of serum cholesterol were: stress and WHR. High values of these predictors were associated with elevated serum cholesterol.

**Table (30): Correlation coefficient (r) and probability value ( p ) between LDL, HDL and TC/HDL ratio and their related risk factors.**

Risk factor	LDL-C		HDL-C		TC/HDL ratio	
	r	p	r	p	r	p
Age	0.08	> 0.05	0.09	> 0.05	0.13	> 0.05
Night shift	0.11	> 0.05	0.09	> 0.05	0.19	> 0.05
Over time work	0.19	> 0.05	0.93	< 0.05	0.09	> 0.05
Serum Cholesterol	0.87	< 0.05	0.22	> 0.05	0.25	< 0.05
Serum Triglyceride	0.68	< 0.05	0.22	> 0.05	0.2	> 0.05
Serum F.B.L.S.	0.05	> 0.05	0.01	> 0.05	0.04	> 0.05
BMI	0.22	> 0.05	0.17	> 0.05	0.23	> 0.05
WHR	0.2	> 0.05	0.11	> 0.05	0.13	> 0.05

Table (30): Shows that there was direct correlation of statistical significant between serum LDL, serum triglyceride and serum cholesterol. Another direct correlation of statistical significant was found between TC/HDL ratio and serum cholesterol level but negative and significant correlation was found between with HDL level and nurse with overtime work.

**Table (31): Regression analysis of variables related to serum LDL among the studied group.**

<b>Variable</b>	<b>Reg. Coefficient</b>	<b>F</b>	<b>P</b>
Serum Cholesterol	6.13	91.95	< 0.001

Constant (inter cept) 54.81

Table (31) shows that the best predictor of serum LDL was serum cholesterol level.

**Table (32): Regression analysis of variables related to serum HDL among the studied group.**

<b>Variable</b>	<b>Reg. Coefficient</b>	<b>F</b>	<b>P</b>
Over time work	2.13	7.14	< 0.001

Constant (intercept) 78.14

Table (32): Clearly shows that the best predictors that lower serum HDL level was over time working nurse.

**Table (33): Correlation coefficient (r ) and probability value (p ) between serum triglyceride and related risk factors.**

Risk factor	Serum triglyceride	
	r	p
Age	0.17	> 0.05
Serum cholesterol	0.35	< 0.05
BMI	0.21	> 0.05
WHR	0.173	> 0.05
Serum F.B.L.S.	0.05	> 0.05
Night shift	0.09	> 0.05
Over time work	0.1	> 0.05

Table (33) shows that there was direct correlation of statistical significant between serum triglyceride level and serum cholesterol.



**Table (34): Regression analysis of variables related to serum Triglyceride among the studied group.**

<b>Variable</b>	<b>Reg. Coefficient</b>	<b>F</b>	<b>P</b>
Serum cholesterol	4.11	10.5	< 0.001

Table (34) shows that the most important predictor of serum triglyceride was serum cholesterol.

**Table (35): Correlation coefficient (r ) and probability value (p) between serum uric acid and related risk factors.**

Risk factor	Serum uric acid	
	r	p
Age	0.67	< 0.05
Serum cholesterol	0.67	< 0.05
Serum LDL	0.61	< 0.05
Serum HDL	-0.03	> 0.05
Serum TC/HDL ratio	0.59	< 0.05
Serum triglycerides	0.62	< 0.05
BMI	0.24	< 0.05

Table (35): Shows a direct correlation of statistical significant between serum uric acid and age, total serum cholesterol, serum LDL, serum TC/HDL ratio, serum triglyceride as well as BMI.

**Table (36): Correlation coefficient (r ) and probability value (p ) between the development of work- related stress and its related factors among the nurse group.**

Risk factors	Stress	
	r	p
Age	0.35	< 0.05
Over time work	0.29	< 0.05
Nigh shift	0.24	> 0.05
Duration of work	0.35	< 0.05
Serum cholesterol	0.18	> 0.05
Serum triglyceride	0.36	< 0.05
Serum TC/HDL ratio	0.32	< 0.05
Serum HDL	0.16	> 0.05
Hyperuricaemia	0.24	> 0.05
Serum LDL	0.23	> 0.05
BMI	0.12	> 0.05
WHR	0.32	< 0.05
Serum F.BL.S.	0.13	> 0.05
+ve family history of CHD	0.24	> 0.05

Table (36): Clearly shows that there was direct correlation of statistical significant between work-related stress and Age, duration of work, WHR, TC/HDL ratio, overtime work and serum triglyceride but inverse correlation of no statistical significant between stress and serum HDL-level.

**Table (37): Regression analysis of variables according to work-related stress among the studied group.**

<b>Variable</b>	<b>Reg. Coefficient</b>	<b>F. value</b>	<b>P</b>
Age	3.15	93.61	< 0.001
Duration of work	8.19	45.23	< 0.001
Overtime work	7.92	23.01	< 0.001

Constant (intercept) 43.891

Table (37) Shows that the best predictors of work related stress were: duration of work, overtime work and age.