Results

The results of this study are presented in the following sequences:

Part I: Description of the infertile females by their socio-demographic characteristics, family history, obstetric and gynecological history (Tables 1-4).

Part II: -Distributions of the infertile females according sexual relationship (table 5).

Part III: - Distributions of the infertile females according to history of infertility, Life style patterns and infertility knowledge (table 6).

Part IV: - Distributions of the infertile females according to Life style patterns and relation of Life style patterns and infertility (table 7-12).

** This part answers the research question which is (Are different female life style patterns affect female ability to conceive). **

Part V: - Relationship between infertile females' lifestyle patterns and socio demographic data (table 13-19).

Part VI: - Relationship between infertile women's life style patterns and knowledge about life style patterns (table 20- 21).

Part 1: Description of the infertile females by their socio- demographic characteristics family history, obstetric and gynecological history.

Table (1): Distribution of the infertile females according to Socio demo-graphic data *(N = 100).*

Items	No	% (100.0)
Age in (years)		
18- 25- 35- 37	45 46 9	45.0 46.0 9.0
Mean ± SD	**(27.20 ± 5.61) years**	
Years of marriage:		
<1year	14	14.0
1- 3 year	44	44.0
5 year	21	21.0
6-15 year	21	21.0
Mean ± SD	**(3.95 ± 3.45) years**	
Body Mass Index		
Mean ± SD	**(28.39± 5.45)**	
Level of Education		
Illiterate	9	9.0
secondary	62	62.0
Higher	29	29.0
Residence		
Urban	38	38.0
Rural	62	62.0
Occupation		
Working	32	32.0
House wife	68	68.0
Place of work (n= 32)		
Safe	28	87.5
Unsafe	4	12.5
Social class		
Sufficient	27	27.0
Not sufficient	73	73.0

Table (1), shows Socio demo-graphic data of infertile females as Mean age ±SD was (27.20 ± .5.61years), (46.0%) of infertile females aged (25-35 years), (45.0%) aged (18-25 years) and (9.0%) aged ≥ 35 years. Mean Body Mass Index was (28.39±5.45), (41.0%) of the infertile females were in pre obese class (25.0–29.9) and (3. 0%) were in (> 40.0) Obese class III. (46.0%) of the infertile women received secondary education. (9.0%) of infertile females were illiterate. About two thirds of the infertile females of sample live at rural area. While (38.0%) of the sample live at urban area.(68.0%) of the infertile women was housewife, while (32.0%) of them respectively were workers and only (12.5%) of them work in un safe places (exposure to radiation or pollution). (73.0%) of the studied the infertile women have insufficient income.

Figure (1): **distribution of infertile females in relation to Body Mass Index.**

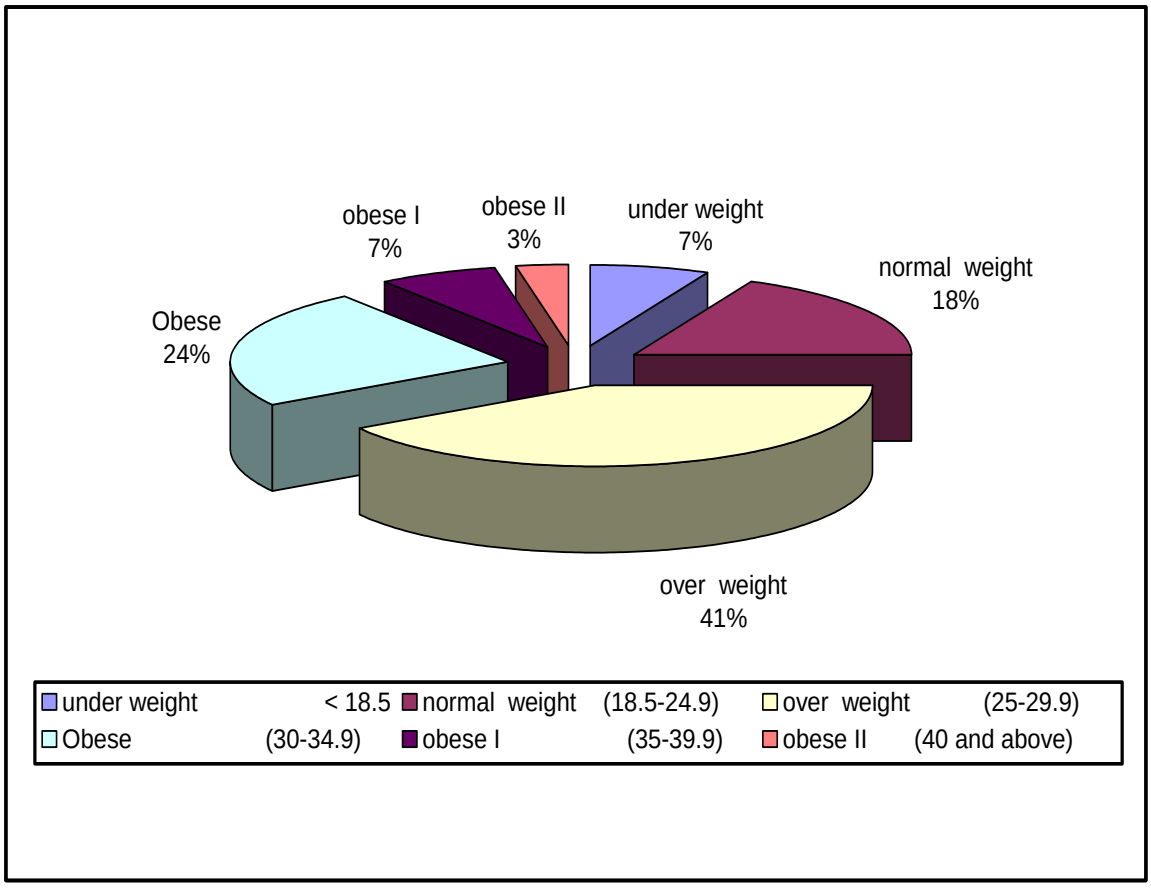

Table (2): Distribution of the infertile females according to clinical history *(N = 100).*

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Items	No	% (100.0)
chronic illness		
- Diabetes	22	22.0
- Hypertension	21	21.0
- Heart disease	2	2.0
- Rheumatic	1	1.0
- liver	1	1.0
- No diseases	53	53.0
Previous surgical operations		
No	96	96.0
Yes	4	4.0

Table (2): shows that (47.0 %) of the infertile females had positive family history of chronic disease while (53.0%) had negative family history. Also (96.0%) had no history of previous surgical operations.

Table (3): Distribution of the infertile females according to gynecological history *(N = 100).*

Items	No (n =100)	% (100.0)
Menarche		
Mean ± SD (12.76 ± 1.37 years)		
menstruation regularity		
Irregular	37	37.0
Regular	63	63.0
Duration of menstruation		
Mean of menstrual duration ± SD (4.96 ± 1.44)days		
period between menstruation		
Mean no. of menstrual interval ± SD (30.295 ±5.59)days		
Amount of menstruation		
Little	6	6.0
Moderate	77	77.0
Large amount	17	17.0
Menstruatal syndrome		
1- Dysmenorrhea		
a- No	28	28.0
b- Yes	72	72.0
Time of pain (n=72)		
Before	29	40.3
During	43	59.7
After	0	00.0
Analgesic using (n=72)		
a- No	53	73.6
b-Yes	19	26.4
2- Breast tenderness		
No	45	45.0
Yes	55	55.0

Table (3): shows that mean of menarche ± SD (12.76 ± 1.37years), (63.0%) of the infertile females had regular menstrual cycle, mean of menstrual duration ± SD (4.96 ± 1.44 days), mean of menstrual interval day's ± SD (30.29 ±5.591 days). (77.0 %) had moderate menstrual flow, (72.0%) had dysmenorrhea, (73.6) of them don't have any drugs to relive menstrual pain, however (55.0%) had breast tenderness.

Table (4): Distribution of the infertile females according to obstetric history (N = 100).

Items	No	% (100.0)
Gravidity		
Yes	14	14.0
No	86	86.0
Parity (n =14)		
Yes	4	28.5
No	10	71.5
Family planning methods used		
Not used	96	96.0
Used	4	4.0
Hormonal oral contraceptives	3	3.0
Intra Uterine Device (IUD)	1	1.0

Table (4): shows that (86.0%) hadn't pregnancy before and (14.0%) had previous abortion, however (71.5%) hadn't any child birth before. (4.0%) of the infertile women used family planning methods, (3.0%) used Hormonal oral contraceptives and (1.0%) used Intra Uterine Device.

Part II: - Distribution of the infertile females according to sexual history.

Table (5): Distribution of the infertile females according to their sexual history (N = 100).

Items	No (n =100)	% (100.0)
Husband:		
absent(traveler)	11	11.0
present	89	89.0
Number of intercourse/week		
1	19	19.0
2	29	29.0
3+	52	52.0
Mean ± SD	**2.49 ± .97times**	
Intercourse during ovulation days		
No	34	34.0
Yes	66	66.0
Dysparunia		
No	74	74.0
Yes	26	26.0
History of sexually transmitted disease		
No	49	49.0
Yes	51	51.0
Practice of vaginal douche		
a-No	60	60.0
b-Yes	40	40.0
Before intercourse	19	19.0
immediately after intercourse	4	4.0
2hr after intercourse	15	15.0
4hr after intercourse	2	2.0
Type of vaginal douche(n =40)		
Soap and water	9	9.0
Betadine	22	22.0
Warm water only	9	9.0

Table (5): shows that (89.0%) their husbands were present, (52.0 %) had intercourse three time or more /week and mean of intercourse /week ± SD (2.49 ± .97 times), (66.0%) had intercourse during ovulation days. (74.0 %) hadn`t have Dysparunia while (26.0%) had dysparunia. (51.0%) had exposed to sexually transmitted disease, (60.0%) had negative use of vaginal douche while (40.0 %) had positive use of vaginal douche, (19.0) of them doing vaginal douche before sexual relation , (4.0%) of them doing vaginal douche immediately after sexual relation ,(15.0%) of them doing vaginal douche 2hr after sexual relation and (2.0%) doing vaginal douche 4hr after intercourse . (22.0%) use betadine in self care.

Part III: - Distribution of the infertile females according to history of Infertility, Life style patterns and infertility knowledge.

Table (6): Distribution of the infertile females according to history of infertility(N = 100).

Items	No (n =100)	% (100.0)
Type of infertility		
Primary	86	86.0
Secondary	14	14.0
Diagnosis		
Ovulation problems	42	42.0
Fallopian tube occlusion	5	5.0
Endometrial inflammation	5	5.0
Cervical problems	3	3.0
Hormonal disorders	17	17.0
Un explained infertility	2	2.0
Ovarian cyst	14	14.0
Low sperm count , motility+ovulation disturbances	12	12.0

Table (6): shows that, most of the infertile sample was primary infertile, while (14.0%) was secondary infertile. The diagnosis of infertility were varied, (42.0%) were related to Ovulation problems while (2.0%) were related to un explained infertility.

Figure (2): types of infertility of the infertile females.

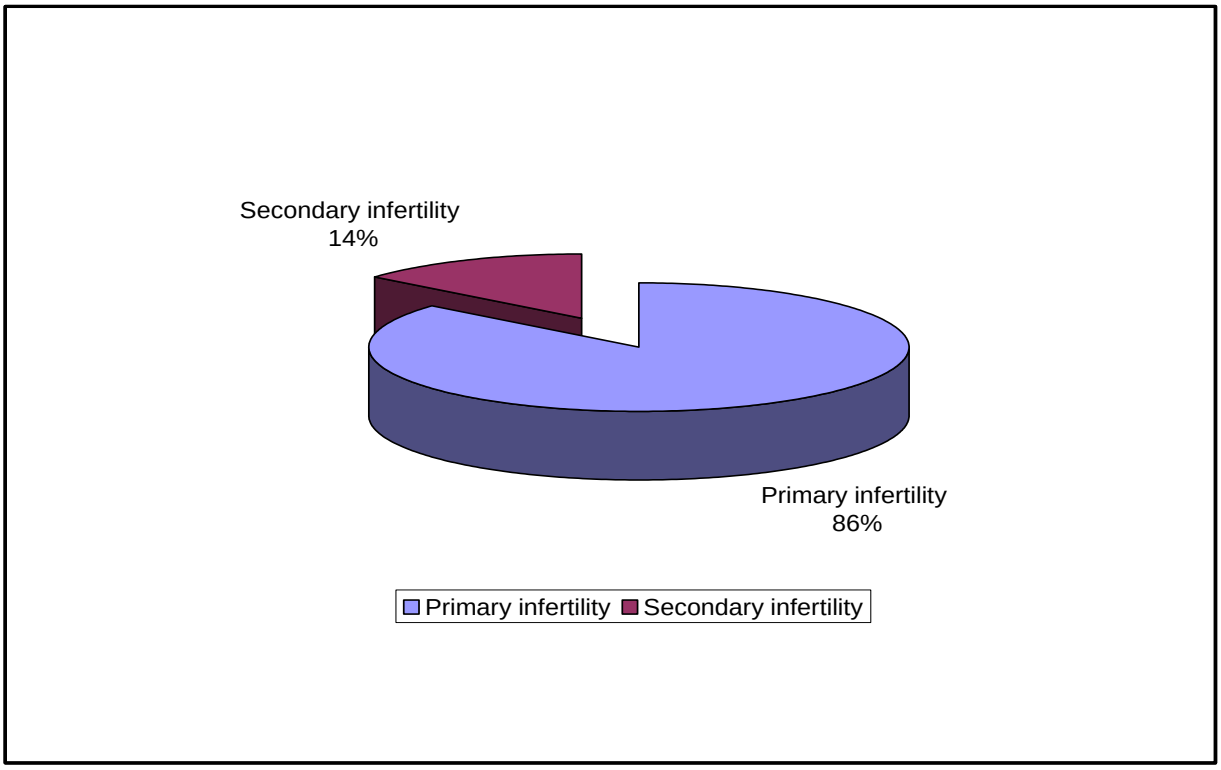


Figure (3): causes of infertility of the infertile females.

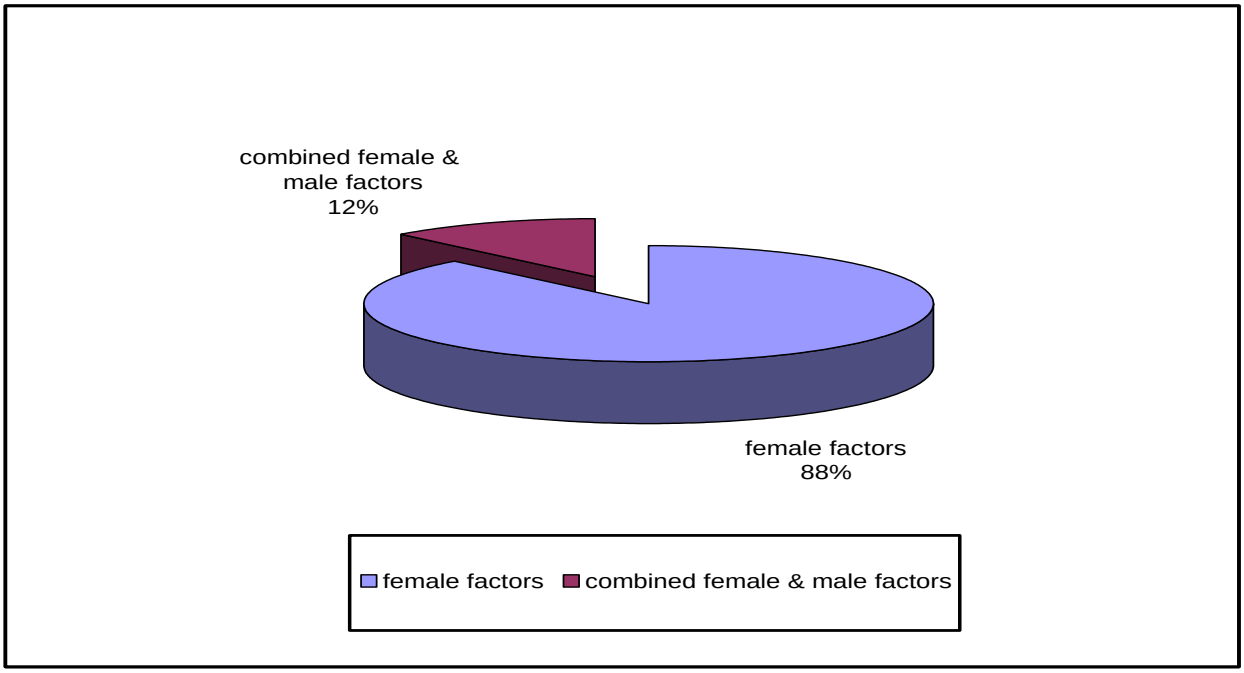
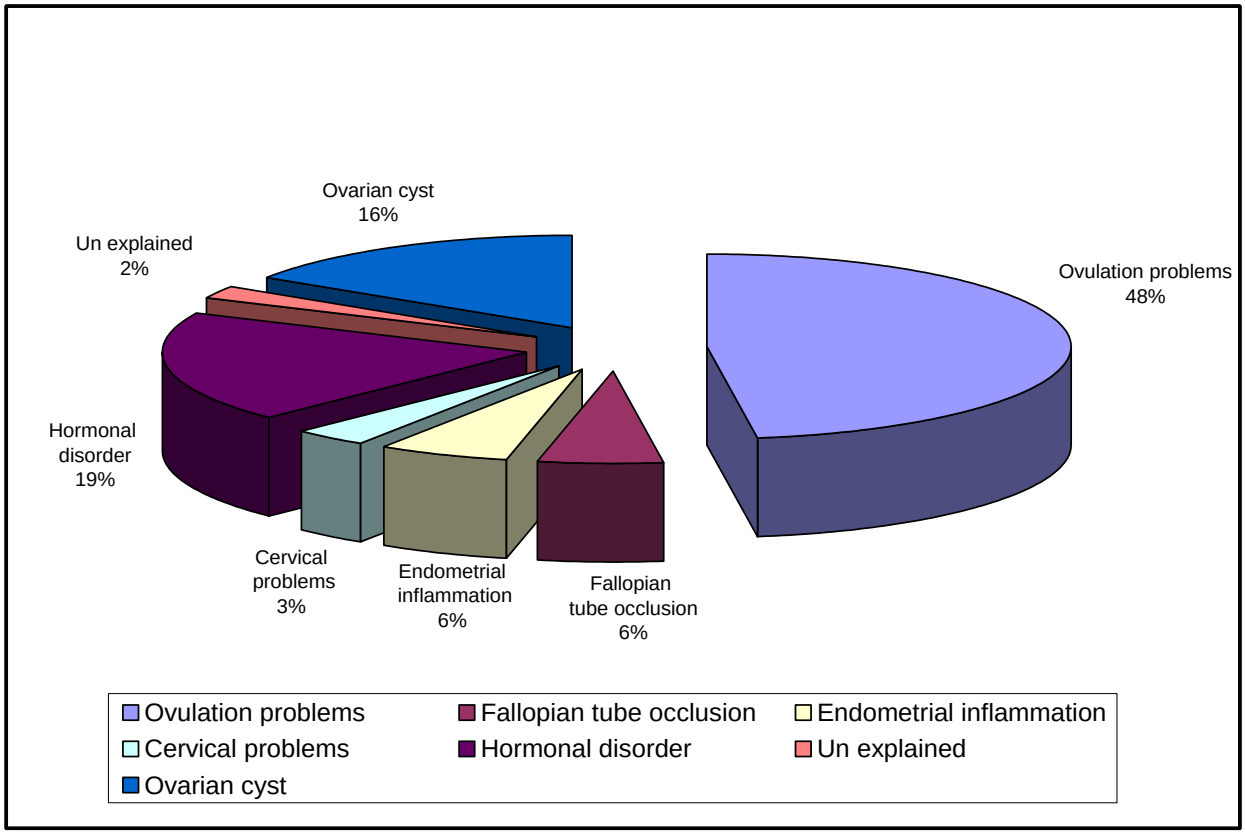


Figure (4): female causes of infertility of the infertile females.



Part IV: - Distribution of the infertile females according to Life style patterns and relation between Life style patterns and infertility.

Table (7): Distribution of the infertile females according to Life style patterns and infertility knowledge (N = 100).

Items	No (n =100)	% (100.0)
Definition of Life style		
Personal behavior	55	55.0
Traditional habits	24	24.0
Environmental factor	3	3.0
All of the above	18	18.0
Life style can be changed		
No	25	25.0
Yes	75	75.0
Life style have effect on infertility		
No	85	85.0
Yes	15	15.0
Definition of infertility		
No pregnancy occur for one year	82	82.0
Failure of intercourse	16	16.0
Use family planning method	2	2.0

Table (7): shows that (55.0%) described life style patterns as personal behavior. (75.0%) believed that the life style can be changed and the majority of the sample (87.0%) believed that the life styles didn`t affect infertility.

Table (8): Total score of infertile females' knowledge.

Items	No	%
Poor (knowledge score from 0 – 33%)	95	95.0
Fair (knowledge score from 34- 66%)	3	3.0
Good (knowledge score from 67- 100%)	2	2.0

Table (8): reveals that most of infertile females have poor knowledge regarding infertility and life style patterns affecting infertility.

Table (9): Distribution of the infertile females's according to Life style practice (N = 100).

Items	No (n =100)	% (100.0)
Drink much (tea or coffee)		
a- No	52	52.0
b-Yes	48	48.0
< 4 cups	22	22.0
4+ cups	26	26.0
Mean ± SD	**(2.80± 2.11) cups**	
Eating patterns		
Un healthy habit	57	57.0
Healthy habit	43	43.0
Smoking habit		
Active	0	0.0
Passive	41	41.0
Sleeping patterns		
< 8 hours	12	12.0
8 + hours	88	88.0
Mean ± SD	**(8.16 ± .614) hours**	
Take snap in midday		
No	74	74.0
Yes	26	26.0

Table (9): shows that (52 .0%) don't drink tea or coffee while (48.0%) of the drink much tea or coffee, (26 .0%) drink 4 or more cups per day and (22 .0%) drink less than 4 cups per day. (57 .0%) don't eat balanced diet while (43 .0%) eat balanced diet. All cases don't smoke,(41.0%) of the infertile sample have passive smoking. (88 .0%) slept 8 hrs or more per day and Mean sleeping hours ± SD were (8.16 ± .614) hours per day while (26 .0%) had snap in midday.

Items	No (n =100)	% (100.0)
Practice physical exercise		

Table (10):

a- Not practice	90	90.0
b-practice	10	10.0
Running	2	2.0
Walking at least half an hr	8	8.0
Drug abuse		
a-No	87	87.0
b-Yes	13	13.0
-Analgesic	13	13.0
Exposed to stress		
a- No	28	28.0
b-Yes	72	72.0
with husband	34	34.0
with husband family	30	30.0
With occupation	8	8.0
Wear tight dressing		
No	93	93.0
Yes	7	7.0

Distribution of infertile females according to Life style patterns (N = 100).

Table (10): shows that (74 .0%) don't sleep in midday and (90.0%) don't practice exercise , (8.0%) were Walking at least half an hr per day and (2.0%) were running. (72.0%) were exposed to stress, (34.0 %) had problems with their husband and (8.0%) had problems in work.

Table (11): Total score of infertile females' life style patterns.

Items	No	%
Poor (life style patterns score from 0 – 60%)	79	79.0
Good (life style patterns score from 61- 100%)	21	21.0

Table (11): reveals that total score of infertile females were more than three quarter had poor life style patterns and (21.0%) had good knowledge.

Figure (5): relation of Life style patterns and infertility.

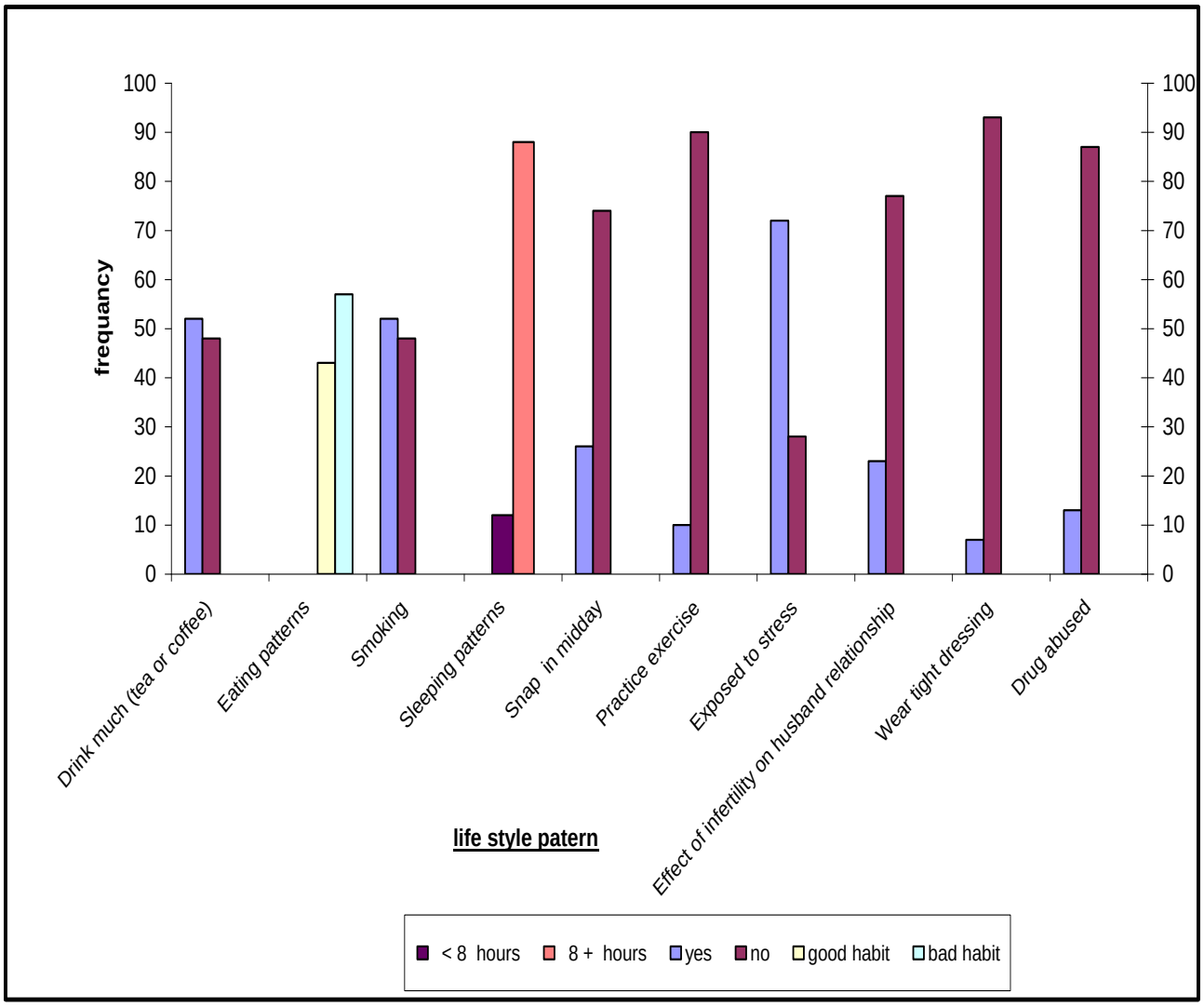


Table (12): Relation between Life style patterns and infertility(N = 100).

Life style patterns	Yes %	No %	Z	P
Analgesic using	19.0	71.0		
Husband traveler	89.0	11.0	7.8	**<0.001****
Number of intercourse/week(3+)	52.0	48.0	0.4	**>0.05**
Intercourse during ovulation days	66.0	34.0	3.2	**<0.001****
Pain during intercourse	26.0	74.0	2.8	**<0.05***
Do vaginal douche	40.0	60.0	2.1	**<0.001****
Drink (tea or coffee)	52.0	48.0	0.4	**>0.05**
Balanced diet	43.0	57.0	1.4	**>0.05**
Passive Smoking	52.0	48.0	0.4	**>0.05**
Sleeping more than 8hours	88.0	12	7.6	**<0.001****
Sleeping in midday	26.0	74.0	4.8	**<0.001****
Practice exercise	10.0	90.0	8	**<0.001****
Exposed to stress	72.0	28.0	4.4	**<0.001****
Wear tight clothes	7.0	93.0	8.6	**<0.001****
Drug abused	13.0	87.0	7.4	**<0.001****
Effect of infertility on husband relationship	23.0	77.0	5.4	**<0.001****

*** refer to statistical significance**
**** refer to high statistical significance**

Table (12): shows a highly significance between husband absent and infertility, intercourse during ovulation days, females that use vaginal douches, females

Slept more than 8hours, females who didn't Sleep in midday, females who didn't practice exercise, females who exposed to stress, females didn't wear tight clothes**,** females that were drug abused, and females that have troubles affect their relations with their husband and infertility. And there no significance change between number of intercourse/week, drinking tea or coffee, eating balanced diet, passive Smoking and having infertility.

Table (13): Relation of Body Mass Index and infertility.

Item	Categorize	T – test	P
Body Mass Index			
under weight	< 18.5		
normal weight	18.5–24.9	**27.81**	**<0.05**
over weight	> 25.0		
Obese	25.0–29.9		
obese I	30.0–34.9		
obese II	35.0–39.9		

Table (13): shows the impact of BMI on infertility, there was significance between BMI and infertility.

Part V: Relationship between infertile females' lifestyle patterns and socio demographic data.

Table (14): Relationship between age of infertile females and their life style patterns.

Age	Total Life style patterns				Total		X^2	P
	poor		Good					
	No	%	No	%	No	%		
18-25 years	38	38.0	7	7.0	45	45.0	93.00	P < 0.05
26-35 years	35	35.0	11	11.0	46	46.0		
more than35 years	6	6.0	3	3.0	9	9.0		
Total	79	79.0	21	21.0	100	100.0		

Table (14): illustrates that their is statistical significance differences between age and life style patterns (X 2 = 93.00 & P < 0.05). (26.0%) of infertile females that had average life style patterns were more in age 28-25 years old.

Table (15): Relationship between Body Mass Index of infertile females and their life style patterns.

Body Mass Index	Total Life style patterns				Total		X^2	P
	poor		Good					
	No	%	No	%	No	%		
less than 18.5 under wt	6	6.0	1	1.0	7	7.0	X 2 = 99.0	P < 0.05
18.5-24.9 normal wt	14	14.0	4	4.0	18	18.0		
25-29.9 over wt	30	30.0	11	11.0	41	41.0		
30-34.9 obese I	20	20.0	4	4.0	24	24.0		
35-39.9 obese II	7	7.0	0	0.0	7	7.0		
40 and above obese III	2	2.0	1	1.0	3	3.0		
Total	79	79.0	21	21.0	100	100.0		

Table (15): describes that their is statistical significance differences between Body Mass Index and life style patterns (X 2 = 99.0& P< 0.05).

Table (16): Relationship between level of education of infertile females and their life style patterns.

Level of education	Total Life style patterns				Total		X^2	P
	poor		Good					
	No	%	No	%	No	%		
illiterate	6	6.0	3	3.0	9	9.0	X 2 = 97.0	P < 0.05
secondary education	50	50.0	12	12.0	62	62.0		
University education	23	23.0	6	6.0	29	29.0		
Total	79	79.0	21	21.0	100	100.0		

Table (16): shows that their is statistical significance differences between Level of education of infertile females and their life style patterns (X 2 =97.0& P < 0.05). About one third of infertile females that were secondary school had poor life style patterns.

Table (17): Relationship between residence of infertile females and their life style patterns.

Residence	Total Life style patterns				Total		X^2	P
	poor		Good					
	No	%	No	%	No	%		
Urban	30	30.0	8	8.0	38	38.0	X 2 = 76.05	P > 0.05
Rural	49	49.0	13	13.0	62	62.0		
Total	79	79.0	21	21.0	100	100.0		

Table (17): reveals that their is no statistical significance differences between Residence and life style patterns (X 2 = 76.05& P > 0.05). (32.0%) of women who live in rural areas had poor life style patterns.

Table (18): Relationship between job of infertile females and their life style patterns.

	Total Life style patterns			

Job	poor		Good		Total		X^2	P
	No	%	No	%	No	%		
Working	25	25.0	7	7.0	32	32.0	X 2 = 96.0	P > 0.05
House wife	54	54.0	14	14.0	68	68.0		
Total	79	79.0	21	21.0	100	100.0		

Table (18): shows that their is no statistical significance differences between job and life style patterns (X 2 = 96.0& P > 0.05).

Table (19): Relationship between place of work of infertile females and their life style patterns.

	Total Life style patterns			

Place of work	poor		Good		Total		X^2	P
	No	%	No	%	No	%		
Safe	76	76.0	20	20.0	96	96.0	X 2 =	P> 0.05
Un safe	3	3.0	1	1.0	4	4.0	8.33	
Total	79	79.0	21	21.0	100	100.0		

Table (19): illustrates that there is no statistical significance differences between place of work and life style patterns (X 2 = 8.33 & P > 0.05). (20.0%) of women had average life style patterns work in safe work place.

Table (20): Relationship between Income of infertile females and their life style patterns.

Income	Total Life style patterns				Total		X^2	P
	poor		Good					
	No	%	No	%	No	%		
Sufficient	22	22.0	5	5.0	27	27.0	X 2 = 83.05	P< 0.001
Not sufficient	57	57.0	16	16.0	73	73.0		
Total	79	79.0	21	21.0	100	100.0		

Table (20): shows that their is highly statistical significance differences between income and life style patterns (X 2 = 83.05 & P > 0.05).

Part VI: Relationship between infertile women's life style patterns and knowledge about life style patterns.

Table (21): Relationship between life style patterns of infertile females and their knowledge.

Knowledge	Total Life style patterns				Total		X^2	P
	poor		Good					
	No	%	No	%	No	%		
poor	75	75.0	20	20.0	95	95.0	X 2 = 10.67	P < 0.05
Average	2	2.0	1	10.0	3	3.0		
Good	2	2.0	0	0.0	2	2.0		
Total	79	79.0	21	21.0	100	100.0		

Table (21): shows that their is statistical significance differences between women knowledge of infertility and their Life style patterns (X 2 = 10.67 & P < 0.05).