Effects of Environmental, Cultural, and Socioeconomic Factors on Saudi Infertile Couple in Riyadh City

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Abstract: Infertility is now recognized as a public health issue in the kingdom of Saudi Arabia, the prevalence rate of infertility is estimated to be more than 2.2% of the population, affecting about 30,000 couples. Infertility is affected by many different socioeconomic, cultural, and environmental factors, the latter playing a major role in infertility. The most cost effective of solving the infertility problem is prevention and education. The maternity nurse working in maternity filed or other agencies should be sensitive to the previous issue and share in health education program, through planning and implementation. The objective of the study were to assess of environmental, cultural, and socioeconomic factors through to affect human fertility among couples attending *in-vitro* fertilization clinics in three hospitals in Riyadh city (King Saud Medical Complex, King Fahad Medical City, and a private hospital). The study population consisted of Saudi couples coming for IVF process, all the patients participated voluntarily and shared in this study after signing a consent agreement .The instrument was adapted by the researchers of the Sher institution for reproductive medicine in Las Vegas, Nevada, United States of America in June 2006 and modified accordingly to the situation. A pilot Study was conducted to evaluate the tool. The data was collected over a period of nearly 3 months; starting from February 1st till the end of April 2010. It was carried out five days a week. Each couple was interviewed by subjects were assured that all the information gathered will be kept confidential. The age of the women on the study was between 26 and 30 years, the mean years of marriage was 4-7 years and most of them were housewives.51.5% of the female study subjects suffered with dysmenorrhia while 37.7% had pain during sexual intercourse, the two previous complain maybe due to ovulation disorders.9.8% of the women had polycystic ovary syndrome, and it was found that 8.2% and 4.9% suffered from hypothyroidism and prolactinemia respectively. 32.8% of the wives and 34.4% of husbands practiced some sort of exercise such as walking, while 19.7% of both, the wives and husbands used dyes to change their hair color, a factor that may cause infertility. None of the women sample smoked while 75.4% of the male sample was heavy smokers, and half of them (47.86%) smoke more than 3 packs per day. The study also reflected that 93.4% of the infertile husbands preferred to use the hot tube for more than 30 minutes every week, and 86.9% of the husbands work required long standing in hot weather and their official attire was made of material such as light jeans. Therefore the role of the nurse in infertility has evolved into a very specialized filed, the maternity nurse must also be involved in the preconception unit, preparing and delivering health education programs about weight, nutrition, smoking, drug abuse and recreational drug, occupational stress prevention programs and stress management is needed.

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1. Introduction

Infertility has often been defined as a failure to achieve pregnancy within 1 year of unprotected intercourse. [(1)]. Infertility affect 10% of couples, usually as a result of asymptomatic infection, education, poverty, nutrition, and the pollution are problems that must be tackled.[(2)]

Infertility is affected by many different socioeconomic factors, cultural, environmental, and socioeconomic factors, environmental factors play a major role of infertility[(2)] The reproductive system is particularly vulnerable to the effect of the environment. This may be due to dramatic events such as major disasters that may be man-made or natural. However, the greatest number of reproductive failure worldwide are due to endemic conditions of the environment, which are greatly influenced by cultural, religious, political, and socioeconomic factors.[(2)] Which including the following categories: physical, psychological and chemical (occupational e.g. social events, welding, agriculture, biomedical research and laboratories, lifestyle (e.g. alcohol, caffeine, smoking) and inadvertent (e.g. air, water and food pollution)[(3,4)]

On the other hand psychological stress in work place becoming an important factor in infertility. [(5,6)] It was found that there was a significant dose response relationship between level of perceived job stress and poor sperm quality. Prevalence rate for Infertility to the 6.1 million people in 1997 5.3

million Americans or 9% of reproductive age (American Society for Reproductive Medicine) in Saudi Arabia Extrapolated Prevalence 578,511, Population Estimated Used 25, 795, 9382. [7]

Infertility is now recognized as a public health issue, in Saudi Arabia must not ignore the socio cultural and environmental factors given adequate attention particularly in respect of its diagnosis, treatment and prevention. This requires a global infertility approach, the implementation of any program aimed at solving couples in infertility in that are prevalent in the society. The most cost – effective approach to solving infertility problem is prevention and education. The maternity nurse which is working in maternity field or other agencies should be sensitive to the previous issue and share in health education program , planning and implementation regarding to all the previous factors which predisposing in the infertility problem and may be this program produce a rapid improvement in women's health and successful reproductions.

Objectives:

Assess of environmental, cultural, and socio-economic factors thought to effect human fertility among couple attending in-verto fertilization clinic in three hospitals in Riyadh city (King Saud Medical Complex, King Fahad Medical City, and a private hospital).

2. Material and methods:

Setting

This study was carried out at three hospitals in Riyadh city (King Saud Medical Complex, King Fahad Medical City, and a private hospital). This hospital was chosen because of availability of in vitro fertilization clinic with good number of patient and nursing staff with good facilities.

Study subject:

The population of this study consisted of Saudi couple coming for IVF process**.** They like to participate voluntarily and share in this study were included. After consent a paper for an agreement.

Tool used for data collection

The instrument was adapted by the researcher from the Sher institutes for reproductive medicine in Las Vegas, Nevada, United States in 1/6/2006 and modified accordingly to the situation.[8]a pilot study was conducted to evaluate the tool.

Instrument

Data were collected by one instrument , consisted of six parts .the first part include questions related to the information about the socio-demographic data of Saudi infertile couple such as age, educational level, occupational status .

The second part the questioners aimed at assessing the obstetrical history, and include 5 questions.

The third part of the questioners aimed to assess gynecological history, and include a total number of 10 questions

The fourth part include past medical conditions which the couple are having a history of any condition.

Fifth part include social history of the couple, the sixth part include the life style and eating habits.

To measure the face validity of the instrument a group of judges was selected. The group included three faculty members from King Saud University. One faculty member from college of applied medical science, one professor for maternity and gynecological nursing for maternity and gynecological nursing, one statistician, to check clarity, simplicity, relevance to purpose of study.

Method of Data Collection:

The data collection covered a period of nearly 3 months; starts from 1st February till end of April 2010. It was carried out five day/week. I information was obtained by couple interview, review of medical records to check all the information.

Each couple was interviewed by the investigator a brief explanation of the purpose of the study was given to the couple. They were assured that all information gathered was confidential.

Statistical Analysis:

Statistical analysis was done using SPSS package version 11.

Nominal and ordinal variables were presented as frequency and percentage.

Quantitative (interval/ratio) variables were presented as range, mean and standard deviation.

Correlation between ordinal variables was conducted using Spearman rank correlation coefficient with 5% level of significance

3. Results:

Finding of the following study are organized according to research design and presented in four Parts. The first part includes the general characteristics, the second part include obstetrical and gynecological history, the third part present findings related to medical history and finding related to analysis of social history, and the forth part present life style and eating behavior.

General Characteristics:

Finding in this section presents the socio demographic characteristics of the study sample.

Socio- Demographic data:

The demographic characteristics of the study sample are detailed in table1 The table reveals that nearly half percent (49.2%) of the women were aged

between 26-30 years and only 3.3% of the respondents were aged below 20 years and 4.9 % their age 36 and above. while 33.4 % of the husband their age ranged between 31- 35 and 14.8% their age above 41. the difference is statically significant ($P < 0.05$)

With the respect of the education more than tow third of wife completed secondary school and above (67.2%) while 44% of their husband the same previous level of education.

In relation to wives occupation it was found that most of the wives are house wives (80.3%) while 95.1% of husbands occupation was military employee more than half of the couple their duration marriage was 5-10 years (Average7.4±4.7).

Obstetrical and Gynecological History:

The response to all items related to obstetrical history, yielding total mean score How long have you been trying to have a baby (5.8±3.3 years) these are presented in table 2, these results indicated that the range 1-18 years. The table also reflects that more than quarter 78.7% of the sample hasn't any pregnancy.

Regarding the gynecological status, Table 3 it was observed that 80.3% with regular period, 78.7% the amount of menstrual flow ranged from medium in amount to heavy flow, 85.2% are not taking medications to bring on their period. 54.1% are experiencing pain with their menstruation , 60.6% are getting moderate to sever pain, respectively 54.5% of women's menstrual pain relived without use of any medications,78.8% menstrual pain starts with the bleeding, 51.5 of menstrual pain persist more than 48 days, 37.7 are having pain with ovulation ,78.7 are not experiencing pain with sexual intercourse and 61.5 of women's who had pain during sexual intercourse are mostly exterior, 77% are not experiencing vaginal discharge and 64.3 of those who experience vaginal discharge have no itching and 85.7 has no odor, 90.2% are not experiencing milk discharges from breasts, 96.7% don't use OCP or IUD.

In relation to sexual practice / week it was found that (42.6%) had 3 times and 36% practice sexual relation for one or two per week, while 21.4% of the couple practice more than 4 times per week.

Among those women 8.2 % use post coital vaginal douches as a method to clean herself while 91.8% women don't do it. More over 9.8% of the women use lubricant during sexual act.

Medical History

Table 4 shows that only 9.8, 13.1, 4.9, 9.8, 8.2, 4.9, 4.9 and 6.6 had PMS, Facial hair, Acne, Fibroid, Ovarian cyst, Hypothoiroidesm, Prolacteinemia, Overweight and Underweight respectively.

Table 5 demonstrates the past medical history of husbands was attended with their wives to in vitro fertilization clinic. Most of them haven't any major health problem only 4.9% had lung problems and underweight respectively.

Table 6 represents the distribution of the infertile wife and their husbands according to their life styles. The table reflects that more than one third of either group (32.8% and 34.4% did exercises at sometimes but not always and p value between wife and husband was statically significant Spearman rank correlation coefficient (r_s=0.41) p<0.001*.

In relation to hair dyes it was found that 19.7% of wives and 18% of husbands always used dyes Spearman rank correlation coefficient (r_s=0.47 p<0.001 *Significant).

In relation to radiation effect on infertile couple it was found that 18% of female was used microwave always, while 39.3% of their husbands used it sometimes. Spearman rank correlation coefficient (r_s=0.72 p<0.001*Significant).

As regard to air pollution the study reflect that (14.8%) used insect killer always while 42.6% of those women used it sometimes, on the other hand their husband used insect killer always (14.8) and 32.8 % used it sometimes Spearman rank correlation coefficient (r_s=0.75 p<0.001*Significant) .as a Saudi couple they used to use smokes to give a nice odor to environment, it was found that 36.1% of wife and 32.8% of husband often use this smoke.

As regard to exposure to stress from family or relative and work place it was found that 18% of the wives express they exposure to stress always and 26% mentioned they exposed to stress sometimes on the other hand 19.7% of their husband mentioned they have stress.

The same table reflects that more than one third from wife and husband had disturbance in sleeping pattern (31.1%and 37.7%) respectively.

In relation to nutritional intake the table also reflect that the women mentioned that they eat salad, beverages, meats, vegetables, fast food, junk food and dairy products sometimes not always(37.7%, 44.3, 55.7%, 52.5%, 52.5%, 50.8%, 32.8%).

Table 7 shows that less than one third (24.6) of infertile husband nonsmoker while more than two third (75.4%) smoker, nearly half percent smoke more than 3 packets.

Table 8 shows that more than half percent from the wife and husband used to have coffee every day (60.7%) and 52.5% respectively) and 54.1% of wife and 75% husband respectively they drink more than three cups (N.B small cup nearly 100 ml of coffee).

Table 9 it was observed that more than half of the sample (husband) likes to use hot tub bath for at

least once/week. (93.4%). As majority of this sample employee in military agencies so they wear clothes look tight and made from material like jeans (86.9%).

(Table 1): Frequency and percentage distribution of demographic characteristics (N= 61)

Distribution of the studied cases according to age (years).				
Age group	Wife		Husband	
	No.	%	No.	%
<20	2	3.3	0	0.0
20-25	13	21.3	1	1.6
26-30	30	49.2	11	18.0
31-35	13	21.3	21	34.4
36-40	3	4.9	17	27.9
41-45	0	0.0	9	14.8
46-50	0	0.0	2	3.3
Distribution of the studied cases according to educational level				
Educational level	Wife		Husband	
	No.	%	No.	%
Illiterate	6	9.8	0	0.0
Elementary	9	14.8	7	11.5
Intermediate	5	8.2	10	16.4
High school	26	42.6	26	42.6
University above	15	24.6	18	29.5
Distribution of the studied cases according to occupation.				
Occupation	Wife		Husband	
	No.	%	No.	%
House wife	49	80.3	-	-
Student	1	1.6	0	0.0
Employed	11	18.1	58	95.1
Retired	0	0.0	3	4.9

How long currently married (years)?

# OF YEARS	No.	%
<5	17	27.9
5-10	31	50.8
>10	13	21.3
Total	61	100.0

Table (2): Distribution of the studied cases according to obstetrical history.

Obstetrical history	No.	%
Duration since starting treatment		
1	4	6.6
2	4	6.6
3	11	18.0
4	5	8.2
5	5	8.2
6	11	18.0
7	6	9.8
8	6	9.8
>8	9	14.8
Have you ever been pregnant before?		
Yes	13	21.3
No	48	78.7

Table (3): Distribution of the studied cases according to gynecological history

Gynecological history	No.	%
Are your periods regular?		
Yes	49	80.3
No	12	19.7
Amount of bleeding		
Light	13	21.3
Medium	31	50.8
Heavy	17	27.9
Have you ever needed medication to bring on your period?		
Yes	9	14.8
No	52	85.2
Pain with menstruation?		
Yes	33	54.1
No	28	45.9
Degree of pain (n=33)		
Mild	13	39.4
Moderate	14	42.4
severe	6	18.2
Pain relieved by over the counter medications (n=33)		
Yes	15	45.5
No	18	54.5
Pain starts with the onset of bleeding (n=33)		
Yes	26	78.8
No	7	21.2
Pain persists more than 48 hours (n=33)		
Yes	17	51.5
No	16	48.5
Do you have pain with ovulation?		
Yes	23	37.7
No	38	62.3
Do you experience pain with sexual intercourse?		
Yes	13	21.3
No	48	78.7
Pain with sexual intercourse (n=13)		
Mostly exterior	8	61.5
Mostly interior	5	38.5
Are you experiencing vaginal discharge?		
Yes	14	230
No	47	77.0
Associated with itching or burning? (n-14)		
Yes	5	35.7
No	9	64.3
Associated with unusual odor? (n-14)		
Yes	2	14.3
No	12	85.7
Do you experience milk or discharge from your breasts?		
Yes	6	9.8
No	55	90.2
Have you ever used an IUD? OCP?		
Yes	2	3.3
No	59	96.7

Intercourse/week

Frequency	No.	%
1	11	18.0
2	11	18.0
3	26	42.6
4	7	11.5
5	4	6.6
6	2	3.3
Postcoital vaginal douche		
Yes	5	8.2
No	56	91.8
Lubricant		
Yes	6	9.8
No	55	90.2

Table (4): Distribution of wives according to their past medical history

History of medical condition	No.	%
PMS Yes No	 6 55	 9.8 90.2
Facial hair Yes No	 8 63	 13.1 86.9
Acne Yes No	 3 58	 4.9 95.1
Fibroid Yes No	 3 58	 4.9 95.1
Ovarian cyst Yes No	 6 55	 9.8 90.2
Hypothyroid Yes No	 5 56	 8.2 91.8
Prolactinemia Yes No	 3 58	 4.9 95.1
Overweight Yes No	 3 58	 4.9 95.1
Underweight Yes No	 4 57	 6.6 93.4

Table 5 Distribution of husbands according to their medical history

History of medical condition	No.	%
Hypothyroid Yes No	 1 60	 1.6 98.4
Lung condition Yes No	 3 58	 4.9 95.1
Hypertension Yes No	 2 59	 3.3 96.7
Hepatitis Yes No	 1 60	 1.6 98.4
DM Yes No	 1 60	 1.6 98.4
Overweight Yes No	 1 60	 1.6 98.4
Underweight Yes No	 3 58	 4.9 95.1

Table 6) Distribution of the studied cases according to their life style and eating habits. (*Wives, Husbands*)

Item	*Wives*								*Husband*								*Spearman rank correlation coefficient* r_s=	*P. value*
	Always		*Often*		*Sometimes*		*Seldom*		*Always*		*Often*		*Sometimes*		*Seldom*			
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*		
1. Exercise	*16*	*26.2*	*8*	*13.1*	*20*	*32.8*	*17*	*27.9*	*13*	*21.3*	*8*	*13.1*	*21*	*34.4*	*19*	*31.1*	*0.41*	*<0.001*
2. Hair Dies	*12*	*19.7*	*8*	*13.1*	*21*	*34.4*	*20*	*32.8*	*11*	*18.0*	*5*	*8.2*	*20*	*32.8*	*25*	*41.0*	*0.47*	*<0.001*
3. Environmental *A. radiation.*																		
Microwave exposure	*11*	*18.0*	*4*	*6.6*	*20*	*32.8*	*26*	*42.6*	*11*	*18.0*	*4*	*6.6*	*20*	*32.8*	*26*	*42.6*	*0.72*	*<0.001*
B .air pollution																		
1. Insect killer	*9*	*14.8*	*8*	*13.1*	*26*	*42.6*	*18*	*29.5*	*9*	*14.8*	*6*	*9.8*	*23*	*37.7*	*23*	*37.7*	*0.75*	*<0.001*
**2. Smokes*	*9*	*14.8*	*22*	*36.1*	*21*	*34.4*	*9*	*14.8*	*9*	*14.8*	*20*	*32.8*	*22*	*36.1*	*10*	*16.4*	*0.89*	*<0.001*
4. Stress	*11*	*18.0*	*5*	*8.2*	*26*	*42.6*	*19*	*31.1*	*12*	*19.7*	*6*	*9.8*	*23*	*37.7*	*20*	*32.8*	*0.51*	*<0.001*
5. Sleep	*9*	*14.8*	*19*	*31.1*	*25*	*41.0*	*8*	*13.1*	*8*	*13.1*	*22*	*36.1*	*24*	*39.3*	*7*	*11.5*	*0.78*	*<0.001*
6. Nutrition																		
a. Eat salad	*14*	*19.7*	*12*	*23.0*	*24*	*39.3*	*11*	*18.0*	*12*	*19.7*	*13*	*21.3*	*23*	*37.7*	*13*	*21.3*	*0.77*	*<0.001*
b. Beverages	*7*	*11.5*	*10*	*16.4*	*28*	*45.9*	*16*	*26.2*	*7*	*11.5*	*12*	*19.7*	*27*	*44.3*	*15*	*24.6*	*0.66*	*<0.001*
c. Meats	*8*	*13.1*	*12*	*19.7*	*31*	*50.8*	*10*	*16.4*	*5*	*8.2*	*13*	*21.3*	*34*	*55.7*	*9*	*14.8*	*0.92*	*<0.001*
d. Vegetables	*8*	*13.1*	*10*	*16.4*	*32*	*52.5*	*11*	*18.0*	*8*	*13.1*	*10*	*16.4*	*32*	*52.5*	*11*	*18.0*	*0.87*	*<0.001*
e. Fast food	*8*	*13.1*	*9*	*14.8*	*30*	*49.2*	*14*	*23.0*	*5*	*8.2*	*11*	*18.0*	*32*	*52.5*	*13*	*21.3*	*0.86*	*<0.001*
f. Junk food	*8*	*13.1*	*7*	*11.5*	*33*	*54.1*	*13*	*21..3*	*8*	*13.1*	*10*	*16.4*	*31*	*50.8*	*12*	*19.7*	*0.77*	*<0.001*
g. Dairy products	*11*	*18.0*	*14*	*23.0*	*21*	*34.4*	*15*	*24.6*	*9*	*14.8*	*16*	*26.2*	*20*	*32.8*	*16*	*26.2*	*0.53*	*<0.001*

**in Saudi culture always people burn something have good smell and result lead to smoky atmosphere*

Table 7 Distribution of infertile husband according to smoking pattern

Item	No	%
Non smoker Smoker	15 46	24.6 75.4
No of packs/day		
One Two Three	9 15 22	19.59 33.33 47.82

Table 8 Distribution of infertile couple to caffeine intake

Wife			Husband		
Item	No	%	Item	No	%
Yes	37	60.7	Yes	32	52.5
No	24	39.3	No	29	47.5
How many cup /day No 37			How many cup /day No 32		
	No	%		No	%
1 2 3 >3	2 6 9 20	4.20 16.21 24.32 54.05	1 2 3 >3	2 3 3 24	6.25 9.38 9.38 75

Table 9 Distribution of the infertile husband according to tub bath and clothes

Item	No	%
Hot tub		
Yes	57	93.4
No	4	6.6
Tight cloths		
Yes	53	86.9
No	8	13.1

4. Discussion:

Women health care is concerned with most areas of priorities for health promotion. However, emphasis in accordance with the individuals characteristics and stages of life. nurses play an important role in promoting health through teaching and counseling that assist clients to make and important healthy chimes in their daily lives many studies have demonstrated that teaching and counseling by health profanes is effective in changing people's erroneous health behaviors.

Infertility is a complex problem with many personal variables for the couple involved. [7]

The age of infertile women in this study was between 26-30 years mean years of marriage was 4-7 years and most of them housewife. Fertility declines with age ,it is typically declines during mid to late thirties as the number of egg declines and ovaries produce less estrogen and progesterone and egg become resistant to fertilization and tended to have more chromosomal abnormalities [3]

Moreover, for the previous factors they are worry and came to see a specialist to do IVF procedure.

Finding from the recent study indicate that most of infertile women their blood loss during menstruation either it moderate amount or heavy (78.7%) and 51.5% have dysmenorrhia and 37.7% having pain during sexual intercourse, all the previous complain may be due ovulation disorder [8].

It was observed that 9.8% of the infertile women have polycystic ovary syndrome and it is considered as the most common endocrine disordered in women and cause of infertility on the other hand, it was found that 8.2% and 4.9% had the hypothyroid, prolactinemia and overweight respectively. Hypothyroidism can have a notable effect on infertility and women may present with infertility caused by thyroid disease. Hypothyroidism is associated with a rise in serum prolactinemia levels. In addition, prolactin level can be elevated by stress and can vary daily. [9]

Table 6 portrays the relation between the life style and infertile couple. It was found that 32.8% wife and 34.4% of husband practice exercises such as walking sometimes, while 19.7% nearly from wife and husband use die to change color of hair always this may.

Consider as one of drugs and environmental chemicals may lead to problem during time of ovulation or cause. Injury usually kills the affected embryo 18% of both wife and husband always use microwave for cooking and warming food, 42.6% of wife, use insect killer and 32.8% of husbands use the same method often. Smokes (some brown wood had nice smell when burn) 36.1% of wife use about twice per day and when guests came to spread this nice odor among home rooms and as traditional method for welcome by gust. Therefore, they use it; also 32.8% of husbands use this method. [10]

It appears that some women with high stress levels may have hormonal changes and interfere with ovulation. In addition, in men, stress may be one of many factors responsible for decrease sperm productions. Moreover, infertile couples experience chronic stress each month .first hoping that they will conceive and then dealing with Disappointment if they do not, treatment can place additional stress on couple the medical evaluation to determine the source of infertility and the treatment interventions can create tremendous finical and emotional stress couples. Some stress research has show that women

undergoing infertility treatment experience an equal or higher level of stress of these faced with life threaten illness of cancer or heart disease [11]

Infertile female and male in this study had more disturbance in sleep, nearly one third of them they mentioned that they sleep only from 2-3 hours per 24/hours this may be due to many environmental factors or psychological disturbance or for male part they going outside home and sit with friend all night same thing like escaping from stress environment at home. On the other hand women are more anxious as Saudi culture gives great importance to pregnancy and chilled bearing, also women was afraid from her husband to married from another one [12, 17, 18, 19]

The results of this study reveled that only 19.7% of infertile couple eat salad once/day and 13.1% eat once cooked vegetables and 13.1% of women and 8.2% of male eat meats once per day. It observe from previous analysis that the intake is less than daily required as vitamin C is important in sperm production and keep the sperm from clumping and make as them more mature. Also Vitamin E needed for balanced hormone production been know as agent and increase sperm count, the sources of vitamin E manly dark green leafy vegetables and whole grains, zinc is another mineral its deficiency lead to delayed sexual maturation and infertility so, a nutritional education is important to be done by the nurses or nutritionist [13]

The results of the study showed that no infertile women were smoke while 75.4% of infertile male heavy smoker and nearly half percent (47.86%) smoke more than 3 packs per day. This may lead to poor sperm quality or quantity and increase risk of improved sperm production [14, 15]

This study reflect that more than half of the sample either infertile their caffeine intake were more than 3 cups per day as same studies have shown a prolonged waiting time to conception among women with higher caffeine intake (equivalent of more than tow cups of coffee per day) effect of caffeine use on male reproductive ability have not been well studied and cannot be evaluated. [6, 16]

Another factor this result reflected on the infertile husband it was observed that 93.4% prefer to use hot tub bath once a week for more than 30 minutes per week , and as they work required long standing in hot weather and with tight clothes their official clothes made from a material such light jeans (86.9%). All this personal and occupational factors may all contribute to infertility and risk abnormal sperm motility [20, 21, 22]

Therefore, the role of nurse in infertility has evolved into a very specialized filed. The maternity nurse must also involve in pre conception unit, health education program about weight, nutrition, smoking, given up drug abuse or recreational drugs, occupation of health prevention program, stress management are needed.

Nurses should be involved in educational forums that will specially address the specialty of infertility of infertility nursing and should also have access to current medical information that is relevant to the field of infertility.

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