2012 2nd International Conference on Management and Artificial Intelligence
IPEDR Vol.35 (2012) © (2012) IACSIT Press, Singapore

Effect of Heavy Workload on Fertility of IT-Professionals: a Study with Respect to Indian IT-Sector

Arjun P. Ghatule [1+], Archana A. Ghatule [2] and Shivaji D. Mundhe [3]

[1] Sinhgad Institute of Computer Sciences, Pandharpur(MS) India
[2] SKN Sinhgad Business School, Pandharpur (MS) India
[3] Sinhgad Institute of Management and Computer Applications, Pune(MS), India

Abstract. Today, in India, IT-Professional is the most envied person because of high salaries, ability to purchase the best of the items and chances for globetrotting. But in reality their personal life lacks luster because of many problems s/he is forced to face in the professional life. Most raising and risky problem is infertility. Due to heavy burden of work, fear of performance appraisal IT-people cannot spend time to their family. Although they are with their spouse, their mind travel somewhere in their work. This culture has long term effect on their sexual life. The paper focuses on the fact that how heavy workload of IT-sector affects on fertility of couples. For the study, two populations are used, IT-Professionals and Doctors. 284 married IT-professionals and 30 doctors of Pune(India) have been selected. The views of doctors on this topic were very important. Sampling Plan used is snowball sampling. Research tries to search whether infertility among IT-Professionals is increasing, if yes what are the causes behind this problem. At the end paper concludes that couples in IT sector are facing infertility problems.

Keywords: IT-Professional, IT-people, IT-sector, IT-projects, infertility, Information Technology

1. Introduction

Everyone today knows that the IT-sector has great opportunities. After a strong recession in European countries, India has not been strongly affected. But it is said that in coming 5 years India would have effects of this recession. But on the other hand, along with the great opportunity that IT-industry has brought with it, there is a grave threat to those employed. Almost all the IT-projects work with a very tight schedule. We find that employment in IT-industry poses serious threat to the long-term welfare of the employees. One of them is infertility. No doubt employees in IT-sector are facing Infertility problems.

Most of the professionals-men or women-who work for long hours, are in the age group of 30 to 35 and also suffer from stress, obesity, irregular body cycles, rise in triglyceride levels, lethargy and above these, emotive ones such as frustration and psychosomatic problems. Due to stress at the workplace, if they had deferred having a family at a younger age, they find that they are unable to conceive naturally[1].

Due to daily heavy duties, job insecurity, fear of performance appraisal, IT-Professionals work under high pressure. Due to the attitude of changing job place frequently, they get tired, and it affects on their sexual life. Many times both, husband and wife may be an IT-Professional. Both may be under high pressure in profession. In some worst cases, they can't get enough time to spend with each other and then things become worst. Couples do not get time to spend together, due to their contrasting schedules. They often miss the fertile period [2]. Many times IT-Professional may have night duties. It affects on their personal and family life. Misunderstanding may be another factor in IT-professionals. It tolls on their sexual life. Many IT-couples have a tendency to postpone childbearing after marriage.

[+] Dr. Arjun P. Ghatule Tel.: + 91 2186 250104; fax: +91 2186 250190.
E-mail address: arjun1671@gmail.com

Infertility: According to the National Infertility Association (NIA), infertility is a medical condition of the reproductive system that results in the inability to conceive or carry a pregnancy to term. The condition is diagnosed after a couple has had a year of unprotected, regular intercourse without conceiving, or when pregnancy occurs but does not result in a live birth. Infertility can be due to factors in either the female or the male. 35-40% of the time the cause can be traced to the female partner, and 35-40% of the time infertility can be linked to the male partner. Sometimes conditions in both partners play a role. Other times the reason for infertility remains unknown. Some of the common causes for woman are blocked fallopian tubes from infection or scar tissue, sexual dysfunction. Likewise some of the common causes for man are low sperm count, high percentage of abnormally shaped sperms, sexual dysfunction.

2. Review of Literature

According to Dr. Amrutraj [3], people working in the field of IT, go through a lot of anxiety, depression and loneliness because of their work environment and often exhibit feeling of inadequacy, lowered self esteem and work satisfaction. This reflects itself in the form of social, marital and sexual problems. 40% of the couples visiting infertility clinics are IT-Professionals. According to his study, many of the couples who come to infertility clinics for artificial insemination, in-vitro fertilization and for other reproductive techniques are IT-Professionals. Long working hours, stress and pressure at work, night shifts and lack of sleep can tend to various sexual problems.

D. S. Madhumathi [4] has taken a serious look at the infertility problems faced by IT-Professionals in Bangalore(India) city. She concentrates on the increasing number of IT-Professionals who come to seek help at her. According to her, out of 10000 couples to whom she is assisting 15% of them were from IT-sector and their number is on rise.

These professionals have practice of using laptops for their work. Regular laptop users may have high risk of infertility, preferably for men [5]. A combination of the heat generated by a laptop and the position of the thighs that is needed to balance the computer leads to higher temperatures around a man's genitals and over time can result in decreased sperm production. Due to all these reasons, infertility is observed as occupation-induced hazard for IT-professionals. It is the need of the hour to check whether really IT-sector employees are facing such problem.

3. Objective of the Study

Objective of the study is to check up to what extent couples in IT-sector are facing infertility problems. What are main reasons of these problems? Is the infertility an occupational hazards for IT-Professionals?

4. Population, Sampling Plan and Data Collection Techniques

Two populations were decided to be selected for the study. One is IT-Professionals and other is doctors. Both populations had been selected from Pune city, because Pune is a well known IT-cluster of India. As the topic is too sensitive and frank answers may not come from IT-Professionals, main stress was given on collection of data and views of doctors. Approximately, 284 married IT-professionals were supplied with questionnaire and 30 doctors were interviewed. The sampling plan used was snowball sampling.

5. Data Analysis

The researcher has collected data from 284 married IT professionals. Questionnaire contained questions regarding the laptop use by professionals; indirect questions regarding infertility like “Are you facing any of following problems with your spouse?” etc.

Among 284 IT-Professionals, 109 (38.38%) were female and 175 (61.62%) were male. Table 1 shows information regarding working field of spouse of IT-professional. Within 109 married females, 66.97% female IT-Professionals are there whose husband is also an IT-Professional and 33.03% females are there whose husband is working in other than IT-field.

Likewise in 175 married males, of 56.57% males’ wife is an IT-Professional and 43.43% males are there whose wife doesn’t work in IT-field. Out of 284 married IT-Professionals, 60.56% professionals are there

whose spouse is an IT-Professional and remaining 39.44% professionals are those whose spouse is not working in IT-field. Figure 1 shows graphical presentation of data shown in Table 1. Such type of data is important because spouse's profession may make effect on infertility problems. Table 1 clearly shows that most of the IT-Professionals' spouse is also an IT-Professional.

Table 2 concentrates on whether IT-Professionals have any problems with their spouse. The options given were Disputes, Interpersonal Instability and Sexual problems. This was an indirect question asked to respondents to check whether they have any sexual problems with spouse.

Table 1: Spouse is working in IT-field or other than IT-field

Gender	Spouse is		Total
	working as an IT Professional	working in other than IT field	
Female	73 (66.97%)	36 (33.03%)	109 (100%)
Male	99 (56.57%)	76 (43.43%)	175 (100%)
Total	172.00 (60.56%)	112.00 (39.44%)	284.00 (100%)

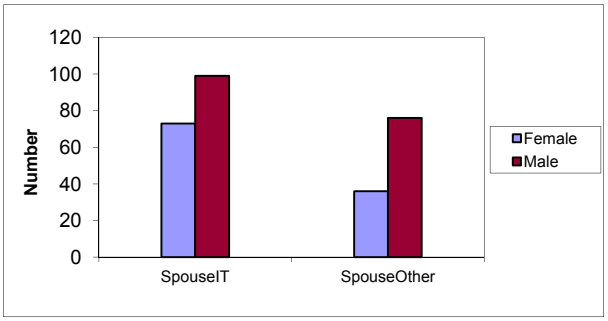

Fig. 1: Spouse is working in IT-field or other than IT-field

Total 66.55% professional have some problems with their spouse. If we observe the table keenly, it indicates that percentage of problems whose spouse is also an IT-Professional is more as compared to professionals whose spouse in not an IT-Professional. For example, percentage of having disputes among male professional whose wife is an IT-Professional is 11.27% and that of professionals whose wife is not in IT is 4.23%. Same is true for female IT-Professionals.

17.96% IT-Professionals have sexual problems with their spouse. Here also percentage of having sexual problems in IT-couple is more i.e. 6.34% and 5.63% in male and female IT-Professional respectively. The data indicates that IT-Professional are facing family problems. Problems are more in IT-couples. Figure 2 shows pictorial representation of data of interpersonal problems with gender and their spouse working field

Table 2: Problems with spouse

No.	Problems	Male		Female		Total
		Spouse is		Spouse is		
		Working as an IT professional	Working in other than IT	Working as an IT professional	Working in other than IT	
1.	Disputes	32 (11.27%)	12 (4.23%)	29 (10.21%)	11 (3.87%)	84 (29.58%)
2.	Interpersonal Instability	21 (7.39%)	12 (4.23%)	16 (5.63%)	5 (1.76%)	54 (19.01%)
3.	Sexual Problems	18 (6.34%)	12 (4.23%)	16 (5.63%)	5 (1.76%)	51 (17.96%)
4.	None	28 (9.86%)	40 (14.08%)	12 (4.23%)	15 (5.28%)	95 (33.45%)

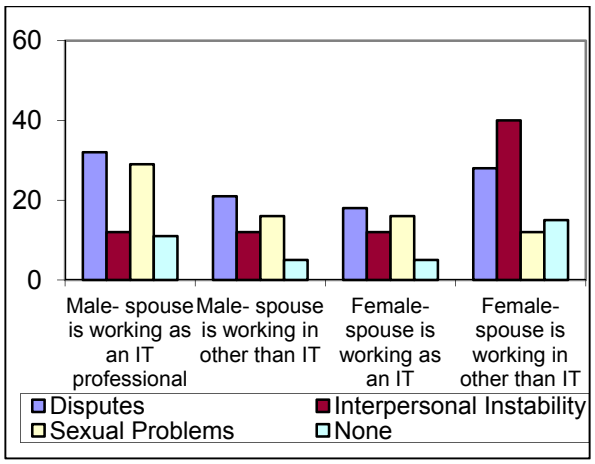

Fig. 2: Gender wise distribution of problems with spouse

Table 3 describes the reasons of problems with the spouse. Most of the IT-Professionals (42.96%) have given reason of their daily rush schedule. 30.99% professionals have said that their stressful job is one of the reasons of their problems. Few of professionals (1.41%) feel that insecurity feeling is the reason for problems whereas 3.52% professionals give other interesting reasons of it. Some professionals have given view that it's obvious in IT-field. Some professionals say that as both are in IT, problems occur. Figure 3 shows graphical representation of data shown in Table 3.

Table - 3: Reasons of problems with spouse

No.	Reasons	Male		Female		Total
		Spouse is		Spouse is		
		Working as an IT-Professional	Working in other than IT	Working as an IT-Professional	Working in other than IT	
1.	Daily Rush Schedule	50 (17.61 %)	20 (7.04 %)	38 (13.38 %)	14 (4.93 %)	122 (42.96 %)
2.	Stressful job	33 (11.62 %)	16 (5.63 %)	28 (9.86%)	11 (3.87 %)	88 (30.99 %)
3.	Insecurity feeling	---	3 (1.06 %)	1 (0.35%)	---	4 (1.41%)
4.	Any other	2 (0.70%)	1 (0.35 %)	2 (0.70%)	5 (1.76 %)	10 (3.52%)
Not responded		20				

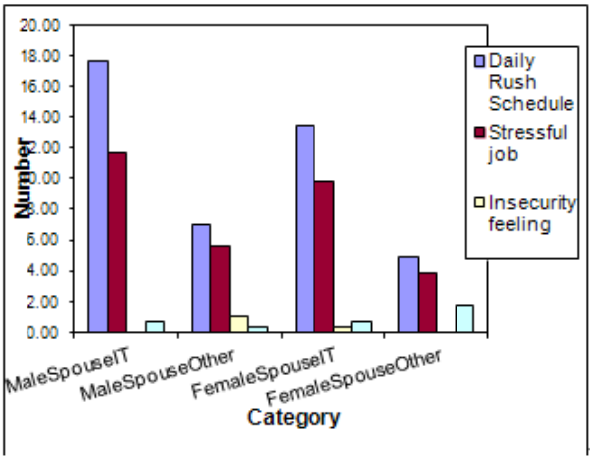

Fig. 3: Reasons of problems with spouse

Another reason for infertility is Lap-top use. The extreme use of Lap-top may affect on male. Table 4 shows the response to the question 'Do you use Lap-Top?". 45.07% professionals have responded no, they do not use Lap-Top. 15.49% professionals rarely use it. 10.92% use Lap-Top occasionally, 15.14% said, they use it frequently whereas 13.38% professionals use it continuous. Figure 4 is graphical representation of data about use of Lap-Top by IT-Professionals.

Table - 4: Use of Lap-Top

No.	Response	Number	
1.	No	128 (45.07%)	
2.	Rarely	44 (15.49%)	
3.	Occasionally	31 (10.92%)	112 (39.44%)
4.	Frequent	43 (15.14%)	
5.	Continuous	38 (13.38%)	
Total→		284 (100%)	

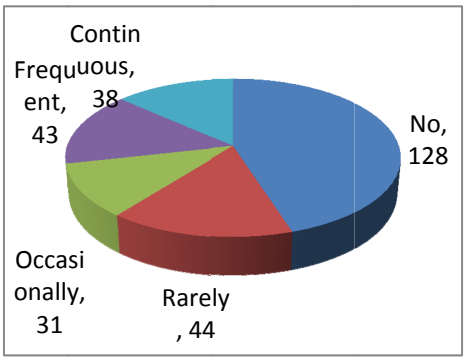

Fig. 4: Use of Lap-Top

Out of 39.44% IT-Professionals who are using lap-tops, 65.31% do not use the docking station. Frequent use of lap-top without docking station may cause the low sperm count in males [5].

For the study and evaluation of infertility problems in IT-Professionals, researcher has tried to consider views of different doctors in Pune who are specialized as gynecologist, psychologist or counselor for many years. The attempt of such type of interview is done to have frank and free opinions of doctors on concerned study. One of which Dr. Maruti Padekar, who is a well known yoga teacher and counselor. Through interviews, researcher observed that he has strong views on occupation-induced problems in IT-Professionals. He said that tension in IT-Professionals start from the admission itself. Getting job through campus, retaining job, upgrading knowledge and tension goes on. When money comes to them they cannot manage time to enjoy money. The effect of such life style has been observed by him in many IT-Professionals. He says their breathing system is not well; they are unable to take immediate decisions.

6. Findings

Total study of IT-Professionals regarding the Infertility problems showed following findings.

- Among IT-Professionals, most of the professionals have their spouse working in IT field only. So, the number of couples working in IT industry is more.

- There are interpersonal problems among these professionals like disputes, interpersonal instability, sexual problems etc. These problems are mostly because of their working style in IT industry. These reasons are daily rush schedule, stressful jobs, insecurity feeling etc.
- The problems they have among couples are affecting on their sexual life and the percentage of infertility is increasing.
- The use of lap-top is also considerable among these professionals. But the practice of docking station is less. This practice is affecting on the sperm count of male.

7. Conclusion

Through the survey, it is very clear that couples in IT sector are facing infertility problems. These problems are basically because of their working style, extra load, and fear of job performance and job profiles of the couples. The infertility is an occupational hazard faced by IT-Professionals.

8. References

[1] Dr. Arjun P. Ghatule and Dr. Archana R. Ugale, 'A Comparative Study of Effect of Job Characteristics on Stress of IT- Professionals and IT-Teachers', Proc. Of 2011 International Conference on Economics, Trade and Development - ICETD 2011, organized by International Economics Development Research Centre (IEDRC) and IEEE at Bali, Indonesia, pp. 279-283, April 1-3 2011.

[2] Love Positive, 'Stress and Workplace', Life Positive Foundation, www.livepositive.com/mind/psychology/stress

[3] The Hindu, 'Stress causing psychological problems in IT-Professionals', 31st January 2005.

[4] Madhumathi D. S., 'Infertility - an occupational hazard?', Business Line, Tuesday, Dec.17, 2002.

[5] Laura Rohde, 'Researchers warn laptop users of infertility risk', Info World- December 09, 2004.

[6] Dr. A. R. Ugale, 'A critical evaluation of occupational hazards and disorders in IT-Professionals', Ph.D. Thesis, Bharati Vidyapeeth University, Pune(INDIA), 2010.