

## A Study on Impact of Job Stress on Infertility: A Deep Review

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### Abstract

The study aimed to investigate the impact of job stress on infertility among working individuals. A systematic review of the literature was conducted to gather relevant studies that explored the relationship between job stress and infertility. The studies were analysed for their methodological quality and findings. The results of the review indicated that there is a significant association between job stress and infertility. The studies showed that individuals with high job stress levels had a higher risk of infertility, including decreased fertility and higher rates of miscarriage. This may be due to the negative effects of stress on the reproductive system, including changes in hormone levels and disrupted menstrual cycles. The review also found that job stress could have an impact on male infertility, including reduced sperm quality and quantity. However, the effect size appeared to be smaller than that observed in females. Overall, the study highlights the need for interventions to reduce job stress levels in the workplace, particularly for individuals who are trying to conceive. Additionally, further research is needed to better understand the mechanisms through which job stress impacts fertility and to develop effective strategies to mitigate its negative effects.

**Keywords:** Job stress, Infertility, Work life balance, Work environment

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### Introduction

Stress occurs in a wide range of work circumstances but is often made worse when employees feel they have little support from supervisors and colleagues, as well as little control over work processes. Job stress is an unavoidable part of any workplace. It can lead to a decrease in employee performance and, if left unchecked, can have serious consequences for the organization. Stress occurs in a wide range of work circumstances but is often made worse when employees feel they have little support from their managers or colleagues. The impact of job stress on employee performance is clear, and it is essential for employers to take steps to reduce it. This article will discuss the causes and effects of job stress, as well as potential strategies for reducing it and improving employee performance. There is often confusion between pressure or challenge and stress, and sometimes this is used to excuse bad management practices. Pressure at the workplace is unavoidable due to the demands of the contemporary work environment. Pressure perceived as acceptable by an individual may even keep workers alert, motivated, and able to work and learn, depending on the

available resources and personal characteristics. However, when that pressure becomes excessive or otherwise unmanageable it leads to stress. Stress can damage an employee's health and business performance. Work-related stress can be caused by poor work organization (the way we design jobs and work systems, and the way we manage them), poor work design (for example, lack of control over work processes), poor management, unsatisfactory working conditions and lack of support from colleagues and supervisors.

Research findings show that the most stressful type of work is that which values excessive demands and pressures that are not matched to workers' knowledge and abilities, where there is little opportunity to exercise any choice or control, and where there is little support from others.

Workers are less likely to experience work-related stress when the demands and pressures of work are matched to their knowledge and abilities, control can be exercised over their work and the way they do it, support is received from supervisors and colleagues, and participation in decisions that concern their jobs is provided.

## Job stress and Infertility

In most of developing countries and South-East-Asian countries in particular, infertility has been relatively neglected as a health problem and as a subject of social science research (Verma *et al.*, 2020) <sup>[5]</sup>. Millions of people in the world who are of reproductive age struggle with infertility, which also has an effect on their families and communities. Worldwide, it is estimated that 48 million couples and 186 million people struggle with infertility. Infertility in men is typically brought on by issues with the ejection of semen, a lack of sperm or low sperm counts, or irregular sperm shape (morphology) and movement (motility). Infertility in women can result from a variety of conditions that affect the ovaries, uterus, fallopian tubes, and endocrine system among others.

Infertility is believed as an individual problem but the impact of infertility on women may vary from society to society depending up on the culture of the society. Studies from some of the African countries have established that marital instability, such as separation and divorce, are much higher among infertile couples (Gijsels, Mgalla and Wambura, 2001) <sup>[6]</sup>. Physical and emotional harassment of childless women by family members have also been documented by different studies (Darr and Mrali, 2001).

Infertility can be classified into primary and secondary infertility. A person has secondary infertility if at least one previous pregnancy has been accomplished, while primary infertility is when a pregnancy has never been achieved. The prevention, diagnosis, and treatment of infertility are all included in fertility care. In the majority of nations, particularly in low-and middle-income nations, obtaining equal and fair access to reproductive healthcare remains difficult. Rarely do national universal health coverage benefit packages provide priority to fertility care. Numerous elements in either the male or female reproductive systems can lead to infertility. But sometimes it's impossible to pinpoint the root causes of infertility. Infertility in women may result from any of the following: uterine conditions that can be inflammatory in nature (like endometriosis), congenital in nature (like septate uterus), or benign in nature (like fibroids); ovarian conditions like polycystic ovarian syndrome and other follicular disorders; and tubal disorders like blocked fallopian tubes, which are in turn caused by untreated STIs or complications of unsafe abortion, postpartum sepsis, or abdominal/pelvic surgery. The pituitary and the hypothalamus are parts of the endocrine system the proportional impact of these factors affecting female infertility may vary from nation to nation due to factors like variations in the background incidence of STIs or the ages of the populations under study.

## Infertility in Men May Result from any of the Following

blockage of the reproductive system leading to abnormalities in semen ejection. The tubes that transport semen are susceptible to this obstruction (such as ejaculatory ducts and seminal vesicles). Blockages are frequently brought on by genital tract injuries or infection. Hormonal issues that result in deviations in pituitary, hypothalamic, and testicular hormone production. The generation of sperm is controlled by hormones like testosterone. Cancers of the pituitary or testicles are two examples of conditions that cause hormonal imbalance, an inability to generate sperm in the testicles. Fertility can be impacted by environmental and lifestyle variables like smoking, binge drinking, and obesity. In addition, exposure to environmental chemicals and pollutants may directly harm gametes (eggs and sperm), causing a decline in their quantity and poor quality that results in infertility.

## Objectives

1. To find out how organizational stress affects fertility
2. To assess different measures to alleviate organizational stress

## Literature Review

Work-related stress is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope. (Beheshti far *et al.*, 2011) <sup>[1]</sup>. Stress-related hazards at work can be divided into work content and work context. (Buomprisco *et al.*, 2021) <sup>[3]</sup>.

Work contents include job content (monotony, under-stimulation, meaningless tasks, lack of variety, etc); workload and work pace (too much or too little to do, work under time pressure, etc.); working hours (strict or inflexible, long and unsocial, unpredictable, badly designed shift systems); and participation and control (lack of participation in decision-making, lack of control over work processes, pace, hours, methods, and the work environment).

Work context includes career development, status and pay (job insecurity, lack of promotion opportunities, under- or over-promotion, work of low social value, piece rate payment schemes, unclear or unfair performance evaluation systems, being over- or under-skilled for a job); the worker's role in the organization (unclear role, conflicting roles); interpersonal relationships (inadequate, inconsiderate or unsupportive supervision, poor relationships with colleagues, bullying/harassment and violence, isolated or solitary work, etc.); organizational culture (poor communication, poor leadership, lack of behavioural rule, lack of clarity about organizational objectives, structures and strategies); and work-life balance (conflicting demands of work and home, lack of support for domestic problems at work, lack of support for work problems at home, lack of organizational rules and policies to support work-life balance).

According to a study by Pesach *et al.*, (2006) <sup>[2]</sup> an inverse association was found between perceived higher workload and conceiving. The likelihood to deliver after fertility treatment was associated with less working hours. Psychological distress has long been suspected as having an important impact on infertility. In both sexes, psychological factors were found to be predictors of the couple's fertility status. However, it is still not completely understood whether psychological stress is part of the aetiology of infertility as a causal factor or whether it appears as a consequence of the overall infertility problem. While other aspects of work, mainly exposures to substances, radiation, etc., have been investigated, an important but less investigated aspect of infertility is the influence of working conditions and psychological distress in the workplace on female infertility. Several studies have investigated gender differences in psychosocial responses of couples in treatment for infertility. In general, men were found to be less motivated than their partners towards fertility treatments. Uneeb, & Hashmi (2021) <sup>[4]</sup> concluded that in women, stress factors reflected reactive changes to infertility, whereas in men, stress and sexual problems represented etiological factors. It is possible that among the male population, occupational stress serves as an etiological factor, while in women it might be a consequence of their infertility status. Increased stress levels in an organization boosts levels of stress hormones-glucocorticoids such as cortisol that inhibit the body's main sex hormone, gonadotropin releasing hormone (GnRH), and subsequently suppresses sperm count, ovulation and sexual activity. Based

on animal experiments, researchers attribute much of this stress effect on sexual function to an increase in glucocorticoids-stress hormones-produced by the adrenal gland. In the brain, these glucocorticoids suppress the main reproductive hormone, GnRH, which in turn causes a shutdown of the release of the gonadotropins luteinizing hormone and follicle-stimulating hormone by the pituitary, and then a suppression of testosterone, estradiol and sexual behavior.

### Organizational Initiatives to Reduce Work Stress

According to the World Health Organization workplace stress is particularly common in situations when employees are asked to do things that exceed their knowledge, abilities and coping skills, and when they do not have enough support from peers and supervisors to close that gap.

#### 1. Workplace Wellness.

Exercise and healthy living are two best strategies against workplace stress. Exercise takes employees' minds off the stress of their job to focus on the task at hand. It also improves moods by increasing the production of endorphins, the brain's feel-good neurotransmitters.

- Encourage employees to go on a walk during lunch breaks
- Subsidize gym memberships
- Bring a yoga instructor into the office once a month
- Hold a steps contest among teams for those who own fitness trackers
- Offer healthy snacks in the office

Employees feel valued when they think the management/organization is looking out for their health. According to Dart (2022)<sup>[7]</sup> 66% of employees felt extremely or very happy when their employer regularly stocked the refrigerator and cupboards, and 83% said that having healthy and fresh snack options was a huge perk. Something as simple as keeping fresh fruit or cartons of yogurt in the fridge goes a long way with employees.

#### 2. Renovate the Environment

A lot of stress comes from environment. Think about every aspect of the office space and what it does (or doesn't do) for the wellness of the team. Simple things like the quality of the coffee or the height of the cubicle walls can affect job satisfaction and thus employee engagement. Update the office with an upbeat color scheme, additional plants, or new silverware. Think about adding a foosball table to allow employees to take their mind off of their stress for a few minutes. Any changes that increase employee enjoyment will leave them feeling less stressed.

#### 3. Work Flexibility

The concept of work flexibility has become increasingly popular in recent years, as more and more companies are realizing the potential benefits it can have on employee performance. Work flexibility allows employees to work from different locations, with different hours, and with different resources. This gives them the freedom to get their job done without feeling like they are stuck in a cell. Studies have shown that when employees feel empowered to make their own decisions regarding how they do their job, they tend to be more productive and engaged in their work. With the right kind of work flexibility, employers can create an environment where employees can thrive and reach their full potential. The office shouldn't feel like a cell, but rather a place that

facilitates getting a job done. The employees should have a perception that their job is defined by the quality and timeliness of their work, not when they punch the clock. The employees should be allowed to work remotely.

#### 4. Encourage Social Activity

Employees spend a lot of time together, and the more comfortable they are, the less stress they will feel. As coworkers get to know each other, expectations and communication barriers are broken down, greasing the wheels for easier future interactions.

#### 5. Create Quiet Time

Stress can't be completely avoided, but it can be alleviated. Ensure that the employees have a place where they can take a break. According to Ramchandani (2022)<sup>[8]</sup> more than 80 percent of disengaged and hostile employees preferred the opportunity to have stress-relief breaks, such as a nap, massage, or required break. A small room, a lounge space at the end of the hall, and even an outdoor bench can be perfect places to find refuge from the chaos of the daily grind. Think about longer, retreat-style vacations, which can serve the same purpose.

If your organization can afford to do so, consider implementing "No Meeting Mondays" or something similar, essentially blocking off time for employees to focus in on individual task and keep from getting bogged down with meetings or overwhelmed by a heavy workload.

#### 6. Distance Counseling Facilities

Many companies have also begun providing counseling as a way for employees to help deal with stress; in a recent study, almost half of workers felt they needed help in learning how to handle the stresses of their jobs. This strategy-in or out of the office, in group settings or individually-can help employees prepare for what stress will come their way. Distance counselling facilities can help employees stay productive and improve their job performance, even when working from home. They provide a safe and secure platform for employees to access counselling services from the comfort of their own home or office. This allows them to get the help they need without having to leave their workspace, which can be beneficial for both employers and employees.

Distance counselling facilities also provide a way for employers to monitor employee wellbeing remotely, allowing them to ensure that all employees are receiving the support they need while still being able to focus on their work. By providing distance counselling services, employers can ensure that their staff remain healthy and productive while working remotely.

#### 7. Proper Recognition for the Employees

Employees love being praised for a job well done, and recognizing their success results in a serious boost in engagement. Each employee has a different personality, so be mindful when considering how and when to recognize. Some employees appreciate a call-out during a meeting or praise in a company-wide email, while more reserved types might prefer a card on their desk or a thank you in person. Employee recognition is a key factor in job performance and overall employee engagement. When employees are recognized for their hard work and success, they feel appreciated and motivated to continue to do their best. Recognition of employee successes can have a positive effect on morale, productivity, and job satisfaction. It can also help to create a

sense of community within the workplace as employees strive to achieve recognition from their peers and supervisors. Employee recognition is an important part of any successful business strategy, as it shows employees that their contributions are valued and appreciated.

## Discussion

Job stress can have a significant impact on one's fertility. Unfavourable work environment and associated job stress can be considered as a reason for infertility in both men and women. Research has shown that high levels of job stress can interfere with the hormones needed to maintain reproductive health. This can lead to reduced fertility, as well as other health issues such as anxiety and depression. It is important to recognize the potential risks that job stress poses on our reproductive health, and take proactive steps to reduce it. This includes creating a supportive work environment, taking regular breaks throughout the day, engaging in physical activities and relaxation techniques, and seeking professional help if necessary.

## Conclusion

The findings of this study suggest that lifestyle factors, particularly smoking and stress, have a significant impact on infertility among IT sector employees. It is important to note that while there is evidence to suggest a link between job stress and infertility, this does not mean that stress is the sole cause of infertility. Infertility is a complex issue with many potential causes, including medical conditions, genetic factors, and lifestyle factors such as smoking and alcohol consumption. Overall, it is clear that job stress can have a negative impact on fertility, and it is important for individuals who are trying to conceive to manage their stress levels as much as possible. This can include practising relaxation techniques such as meditation or yoga, seeking support from friends and family, and making lifestyle changes to promote overall health and well-being. Additionally, employers can take steps to create a more supportive work environment, such as offering flexible schedules, providing mental health resources, and promoting work-life balance.

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