iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** X **Month of publication:** October 2023

DOI: https://doi.org/10.22214/ijraset.2023.56307

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 11 Issue X Oct 2023- Available at www.ijraset.com

Effect of Lifestyle in Female Infertility: A Review Based Study

Saurav Siddharth[1], Bilkisa Farooq[2], Nirnay Kumar[3], Mirza Burhan[4]
Swami Vivekanand College of Engineering and Technology

Abstract: ***Female infertility is a multifaceted issue with numerous contributing factors. While medical conditions and genetics play a significant role, recent research has shed light on the compelling influence of lifestyle choices. This research paper explores the intricate relationship between lifestyle and female infertility, delving into the impact of dietary habits, physical activity, substance use, and stress management on a woman's reproductive health. Through an extensive review of existing literature, this paper synthesizes findings that emphasize the critical role of lifestyle factors in fertility. It highlights the potential consequences of diets rich in processed foods, excessive alcohol consumption, smoking, and sedentary behavior. Conversely, it underscores the benefits of a balanced diet, moderate exercise, and stress reduction in promoting fertility and overall well-being. Furthermore, this paper examines the interplay between lifestyle and age, recognizing that the age-related decline in fertility can be influenced and, to some extent, mitigated by healthy living choices. It also explores the impact of environmental factors and socioeconomic disparities on female infertility. This research contributes to a comprehensive understanding of the modifiable aspects of female infertility and their implications for healthcare practices, public health policies, and individual decision-making. It advocates for a holistic approach to reproductive health, where lifestyle choices are not only recognized as integral but also as actionable pathways toward improved fertility outcomes. This research underscores the significance of lifestyle in the realm of female infertility and the potential for proactive measures to enhance reproductive health. It sets the stage for a future where individuals and healthcare providers can harness the power of lifestyle choices to support fertility, destigmatize infertility, and prioritize overall well-being.***

I. INTRODUCTION

The inability to get pregnant after a year of unprotected sexual activity is known as infertility. All European countries have experienced a continuous decline in birth rates since the early 1950s, with no statistically significant differences between regions or social levels . InfertilitybAffects about 15% of people in high-income nations , while it affects up to 30% of people in Low-income nations . The success and health of reproduction are influenced by lifestyle variables. These elements Include postponed parenthood, obesity, excessive or improper exercise, unhealthy eating, Smoking, psychological stress, alcohol and/or caffeine use, and exposure to chemicals and Pollutants in the environment . Sexually transmitted illnesses and genital tract infections are Significant problems in low-income nations . Therefore, it is obvious that the development And execution of initiatives promoting better choices and lifestyles and halting the spread of STDs will result in a drop in infertility rates and should be a primary area of research[1]. The purpose of this study was to discover lifestyle characteristics that may contribute to Female infertility by contrasting a sample of infertile women with a group of fertile women, And to make recommendations for women's health professionals on how to counsel women Who may experience infertility[2].Dietary Aspects, Nutritional Deficiencies, and Reproductive Results .Human reproduction and energy metabolism are tightly related. A healthy diet is Essential not only during pregnancy but also adolescent years and the time before pregnancy Poor/unhealthy eating practices are frequently linked to consuming too many calories and Not getting enoughessential nutrients . Substandard nutrition is a problem in low-income Nations.in females is highly typical as a result of scarce resources and lack of broad Knowledge about eating habits. The process ofhowever, some nations have improper eating And living practices. Choices become the primary cause of female undernutrition.which may Cause a reproductive disorder Studieshave demonstrated that reduced food intake Protracted under-Negative energy balance and poor diet might postpone puberty.time and a Rise in ovulation disorders and is linked to decreased female fertility. In women with diabetes, Altered nutritional status and low energy levels are frequently noted.luteal phase disruption, Hypothalamic amenorrhea, and PCOS Approximately 4-9% of women in the healthy Reproductive age group Women are susceptible to developing luteal phase disorders.LPD), Which decreases the endometrium's susceptibility to implantation,causes infertility and early Pregnancy loss .adequate nutrition becomes considerably more significant.for women of Childbearing age who intend to have a child andf or expectant and nursing moms during the Prenatal and neonatal period periods, as well as the first year of a baby's life[12].

©IJRASET: All Rights are Reserved

Obesity's Medical consequences on female ifertility Obesity has a detrimental influence on a person's Ability to conceive, which is mostly attributed to a functional change in the hypothalamic- Pituitaryovarian (HPO) axis. Insulin is known to stimulate greater ovarian androgen synthesis, And obese women frequently have higher circulating insulin levels . Due to increased adipose Tissue, these androgens are aromatized to estrogen at high rates in the peripheral, which negatively affects the HPO axis and gonadotropin production . Ovulatory dysfunction and Irregular menstruation are two symptoms of this. Oligomenorrhea and hyperandrogenism are hallmarks of the polycystic ovarian syndrome (PCOS), which has hyperinsulinemia as a major contributor to its pathophysiology. Obese women frequently have a more severe form of insulin resistance, which worsens the symptoms of PCOS.obese females frequently exhibit a more severe phenotype . A constant loop of increased ovarian and adrenal androgen production results from elevated androgen levels in PCOS, which cause visceral fat to be deposited, which then causes insulin resistance and hyperinsulinemia . Although it hasn't been proven that obesity causes PCOS to develop, the prevalence of the condition is close to 30% in some obese populations [8].

II. THE REPRODUCTIVE TIMELINE

When it comes to having babies, both men and women have a timeline they should consider. As people get older, it can become more challenging to have children. Let's break it down for men and women:

For men, as they get older, their ability to father children can decrease. This happens because their testosterone levels drop, and it can affect the quality of their sperm. After the age of 40, men may have more DNA damage in their sperm, making it harder to have a baby. It might also take longer for their partners to get pregnant.

For women, it's a bit more complicated. Women are born with a certain number of eggs, and as they age, this number decreases. As this happens, it can become harder for women to get pregnant, and their menstrual cycles may change. If a woman is under 30, she has a good chance of getting pregnant, but if she's over 36, it becomes more challenging. The risk of having a healthy pregnancy also decreases with age, and there's a higher chance of certain genetic issues[10].

In simple terms, as both men and women get older, it can become more difficult to have children, and there's a higher risk of pregnancy complications. So, it's essential to consider your age when planning to start a family[9].

III. LITERATURE REVIEW

The effects of lifestyle on female infertility have garnered considerable attention in recent years, as researchers seek to understand the multifaceted factors contributing to reproductive health challenges. This review of the literature provides an overview of key lifestyle factors and their impact on female fertility.

A. Diet and Nutrition

Dietary choices play a pivotal role in female fertility. A diet rich in essential nutrients, including vitamins, minerals, and antioxidants, can positively influence reproductive health. For example, folic acid is essential for preventing neural tube defects in offspring, while antioxidants like vitamin C and E protect against oxidative stress, a known contributor to infertility. Conversely, diets high in processed foods, trans fats, and sugars have been associated with reduced fertility. Obesity, often linked to poor dietary habits, can disrupt hormonal balance, affecting ovulation and menstruation. Moreover, weight extremes, both underweight and overweight conditions, can impede fertility, highlighting the importance of maintaining a healthy body mass index (BMI) through diet.

B. Physical Activity

Physical activity is a crucial aspect of overall health, but its effects on fertility are complex. Moderate exercise can enhance fertility by promoting a healthy BMI and regulating insulin levels. However, excessive and intense workouts can disrupt the menstrual cycle and ovulation. Striking the right balance is vital, as evidenced by studies showing that women who engage in regular, moderate exercise tend to have higher fertility rates than sedentary individuals or those with excessive exercise routines.

C. Stress

Chronic stress has been linked to infertility through its impact on hormonal regulation. Stress triggers the release of cortisol, which can disrupt the delicate hormonal balance required for ovulation and reproductive function. Stress management techniques such as yoga, meditation, and mindfulness have shown promise in mitigating these effects. Additionally, addressing stressors in one's lifestyle, such as work-related pressures, can be beneficial for women seeking to improve their fertility.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

D. Smoking and Alcohol Consumption

Both smoking and excessive alcohol consumption have detrimental effects on female fertility. Smoking not only reduces egg quality but also depletes ovarian reserve, leading to earlier onset of menopause. Likewise, excessive alcohol intake disrupts hormonal regulation and impairs reproductive function. Quitting smoking and moderating alcohol consumption are advisable for women trying to conceive, as studies have consistently shown improved fertility outcomes after cessation.

E. Sleep Patterns

Sleep patterns are emerging as a critical lifestyle factor affecting female fertility. Irregular sleep schedules, shift work, and insufficient sleep can disrupt circadian rhythms, which regulate hormone release. This disruption can lead to menstrual irregularities and ovulatory disorders, ultimately impairing fertility. Ensuring a consistent sleep schedule and prioritizing adequate sleep are essential for maintaining reproductive health.

The literature on the effects of lifestyle on female infertility underscores the intricate relationship between various factors and reproductive outcomes. Diet and nutrition, physical activity, stress, smoking, alcohol consumption, and sleep patterns all influence a woman's fertility, either positively or negatively. While the impact of these lifestyle factors may vary from one individual to another, adopting a balanced lifestyle that emphasizes a nutritious diet, moderate exercise, stress management, and healthy habits can enhance a woman's chances of achieving and maintaining a healthy pregnancy. However, it is essential to recognize that fertility is a multifaceted issue influenced by genetic, environmental, and lifestyle factors. Further research is necessary to gain a more comprehensive understanding of these interactions and to develop personalized interventions for women facing fertility challenges.

IV. EFFECTS OF LIFESTYLE IN FEMALE INFERTILITY

The effects of lifestyle factors on female infertility have become a subject of increasing interest and concern in recent years. Infertility is defined as the inability to conceive after a year of regular, unprotected intercourse, and it affects millions of couples worldwide. While infertility can have various causes, lifestyle factors are emerging as significant contributors to this complex issue. In this comprehensive discussion, we will explore how diet and nutrition, physical activity, stress, smoking, alcohol consumption, and sleep patterns can impact female fertility.

A. Diet and Nutrition

Diet and nutrition play a pivotal role in female fertility. Nutrient-rich foods provide the body with essential vitamins, minerals, and antioxidants, which are crucial for reproductive health. Folic acid, for example, is essential for preventing neural tube defects in offspring. Antioxidants such as vitamin C and E protect the ovaries and eggs from oxidative stress, which can harm fertility. Adequate intake of omega-3 fatty acids has been linked to better egg quality and improved uterine blood flow, both critical for successful conception. Conversely, diets high in processed foods, trans fats, and sugars have been associated with reduced fertility. Processed foods often contain high levels of unhealthy fats, which can lead to inflammation and hormonal imbalances, disrupting ovulation and menstrual regularity. High sugar intake can result in insulin resistance, a condition that affects hormone regulation and can lead to polycystic ovary syndrome (PCOS), a common cause of infertility. Obesity, frequently linked to poor dietary habits, can exacerbate these issues by disrupting the hormonal balance needed for fertility. On the other hand, extreme weight loss, as seen in eating disorders or excessive dieting, can also hinder fertility by reducing the production of reproductive hormones. A balanced diet that includes a variety of nutrient-dense foods, such as fruits, vegetables, whole grains, lean proteins, and healthy fats, can contribute to better reproductive health. Achieving and maintaining a healthy body mass index (BMI) through diet can enhance fertility, although individual responses may vary.

B. Physical Activity

Physical activity is a crucial aspect of overall health, but its effects on fertility are multifaceted. Moderate exercise has been shown to improve insulin sensitivity, regulate menstrual cycles, and maintain a healthy BMI, all factors that can enhance fertility. Exercise can also reduce stress and promote overall well-being, which can indirectly support fertility. However, the relationship between exercise and fertility is not linear.

Excessive or intense workouts can lead to amenorrhea (absence of menstruation) or irregular menstrual cycles, a condition known as hypothalamic amenorrhea. This can disrupt ovulation and reduce fertility. Striking the right balance between regular, moderate exercise and rest is vital for maintaining reproductive health.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

C. Stress

Chronic stress is a prevalent modern-day concern and has been linked to infertility through its impact on hormonal regulation. When the body perceives stress, it releases cortisol, commonly known as the "stress hormone." Elevated cortisol levels can disrupt the delicate hormonal balance required for normal ovulation and reproductive function. Stress can also affect the release of gonadotropin-releasing hormone (GnRH), which plays a crucial role in the menstrual cycle. Stress management techniques such as yoga, meditation, deep breathing exercises, and mindfulness have shown promise in mitigating the effects of stress on fertility. Reducing stressors in daily life, such as work-related pressures, can also be beneficial for women seeking to improve their chances of conception.

D. Smoking and Alcohol Consumption

Both smoking and excessive alcohol consumption have detrimental effects on female fertility. Smoking is a well-known risk factor for infertility. It not only reduces egg quality but also accelerates the depletion of the ovarian reserve, leading to earlier onset of menopause. Smoking can also interfere with the function of the fallopian tubes, making it more challenging for a fertilized egg to travel to the uterus. Alcohol, when consumed in excess, can disrupt hormonal regulation and impair reproductive function. It can affect the menstrual cycle, ovulation, and the quality of eggs. Additionally, alcohol consumption during pregnancy can lead to fetal alcohol syndrome, a condition that can have lifelong consequences for the child. Quitting smoking and moderating alcohol consumption are advisable for women trying to conceive. Studies have consistently shown improved fertility outcomes after cessation. However, the impact of smoking and alcohol on fertility can vary based on individual factors such as the duration and intensity of exposure.

E. Sleep Patterns

Emerging research suggests that sleep patterns are a critical, yet often overlooked, factor affecting female fertility. Irregular sleep schedules, shift work, and insufficient sleep can disrupt circadian rhythms, which regulate the release of hormones, including those involved in the menstrual cycle. Sleep disturbances can lead to hormonal imbalances, menstrual irregularities, and ovulatory disorders, all of which can impact fertility. One key hormone affected by sleep is melatonin, which is produced during the night and plays a role in regulating the menstrual cycle. Disrupted sleep can lead to melatonin imbalances, potentially interfering with reproductive function. Ensuring a consistent sleep schedule and prioritizing adequate sleep are essential for maintaining reproductive health. Developing healthy sleep habits, such as creating a dark and quiet sleep environment, limiting exposure to electronic screens before bedtime, and practicing good sleep hygiene, can positively influence fertility.

F. Eating disorders and being underweight

The impact of weight on fertility extends beyond just obesity, affecting both men and women differently. Men who are underweight often exhibit lower sperm concentrations compared to those within a normal BMI range [11]. While existing research predominantly examines the consequences of obesity, there is a notable gap in our understanding of how being underweight can affect male fertility, necessitating further investigation.

Conversely, women who are underweight or possess extremely low levels of body fat face the risk of ovarian dysfunction and infertility [12]. Notably, the risk of ovulatory infertility significantly increases in women with a BMI below 17 (RR 1.6) [13]. A comprehensive meta-analysis involving 78 studies and over a million women discovered that underweight women had an elevated risk of pre-term birth (RR 1.29) [14]. Eating disorders, such as anorexia nervosa, are often associated with extremely low BMI. Although relatively rare, these disorders can profoundly disrupt menstruation, fertility, and the well-being of both mother and fetus [15].

Furthermore, research findings indicate that among infertile women experiencing amenorrhea or oligomenorrhea due to eating disorders, a significant portion (58%) exhibited menstrual irregularities (n = 66) [15]. In a related study, Freizinger et al. Reported that 20.7% of infertile women seeking intrauterine insemination (IUI) had previously been diagnosed with an eating disorder, suggesting that a history of eating disorders might elevate the risk of infertility in women [16].

This nuanced interplay between being underweight, eating disorders, and fertility underscores the importance of considering both ends of the weight spectrum when addressing reproductive health. Further research is essential to comprehensively understand the impacts of being underweight on male fertility and to develop effective interventions for individuals grappling with eating disorders to enhance their chances of conception and overall well-being.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

G. Radiation

Radiation from things like X-rays and gamma rays can harm our body's sensitive cells, like those responsible for making babies. The damage it causes depends on how much radiation you're exposed to and how old you are. In some cases, it can even make you unable to have kids.

Now, let's talk about cell phones. They're super handy, but they have a downside. Some studies show that the waves they use (called radiofrequency electromagnetic waves) can mess with our ability to make babies. These studies found that using cell phones a lot can make sperm weaker, reduce how many of them are alive, increase harmful substances in sperm, change their shape, and lower their numbers.

One study even showed that guys who carry their cell phones near their waist were more likely to have sperm that doesn't swim well compared to those who carried it differently or didn't carry it at all. So, it's a concern.

There's also this thing called text-messaging. It's becoming more popular than making calls. But we don't know much about how it might affect our bodies yet. Technology moves fast, but research takes time to catch up, so there could be hidden problems we don't know about yet[17,18,].

V. DISCUSSION

Lifestyle factors can have a significant impact on female infertility. The choices we make in our daily lives, such as diet, exercise, smoking, alcohol consumption, and stress management, can all play a role in a woman's ability to conceive. Understanding how these lifestyle factors influence fertility is crucial for those trying to start a family.

Diet plays a vital role in female fertility. Maintaining a balanced and nutritious diet is essential. Obesity or being significantly underweight can disrupt hormonal balance, leading to irregular menstrual cycles and ovulatory disorders. Consuming a diet rich in fruits, vegetables, whole grains, and lean proteins provides essential nutrients that support reproductive health. On the other hand, excessive consumption of processed foods and sugars can lead to inflammation and insulin resistance, which can negatively impact fertility.

Physical activity is another critical aspect of lifestyle that affects female fertility. Regular exercise helps maintain a healthy body weight and can improve insulin sensitivity. However, excessive or intense exercise, especially in cases of extreme training or competitive athletics, can disrupt the menstrual cycle and lead to irregular ovulation. Striking a
balance by engaging in moderate physical activity is key to promoting fertility.

Smoking and alcohol consumption are well-known culprits in female infertility. Smoking has been linked to decreased ovarian reserve, meaning a woman's ovaries may have fewer eggs, and those eggs may be of lower quality. Additionally, smoking can damage the fallopian tubes and the uterus, making it difficult for a fertilized egg to implant. Similarly, excessive alcohol intake can impair reproductive function by disrupting hormonal balance and interfering with the normal menstrual cycle. It's advisable for women trying to conceive to quit smoking and limit alcohol consumption.

Stress is an often underestimated factor in female infertility. High levels of stress can disrupt the hormonal signals necessary for ovulation. Chronic stress may also lead to irregular menstrual cycles and anovulation (lack of ovulation). Stress management techniques such as yoga, meditation, and counseling can be beneficial for women trying to conceive.

Environmental toxins and exposure to certain chemicals can also impact female fertility. Pesticides, endocrinedisrupting chemicals, and heavy metals can interfere with hormonal balance and egg quality. Minimizing exposure to such toxins by choosing organic foods and reducing the use of plastic products can help protect fertility. Age is an inevitable factor in female infertility, but lifestyle choices can either mitigate or exacerbate its effects. Women are born with a finite number of eggs, and as they age, both the quantity and quality of these eggs decline. Lifestyle factors that promote overall health, such as a balanced diet, regular exercise, and stress management, can help delay the agerelated decline in fertility to some extent. lifestyle factors have a profound impact on female infertility. Maintaining a healthy diet, engaging in moderate exercise, avoiding smoking and excessive alcohol consumption, managing stress, and reducing exposure to environmental toxins can all enhance a woman's chances of conceiving. Understanding how these lifestyle choices influence fertility is crucial for women and couples who are trying to start a family. By making informed and positive lifestyle changes, individuals can take proactive steps to improve their fertility and increase their chances of achieving a healthy pregnancy.

Continued research on the effects of lifestyle on female infertility is of paramount importance due to its wide-ranging implications for women's health and family planning. This research serves as a beacon of knowledge, illuminating the intricate relationship between lifestyle choices and a woman's ability to conceive. It empowers individuals with the information needed to make informed decisions about their daily habits and dietary choices, potentially averting fertility challenges.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

Moreover, this research aids in the development of preventive measures, contributing to overall health improvement by advocating for healthier lifestyles. It also carries the potential to destigmatize infertility, shifting the conversation from blame to a focus on modifiable factors. Economically, it can lead to substantial cost savings by reducing the need for expensive fertility treatments. On a broader scale, public health campaigns and policies can be crafted based on the findings, promoting healthier behaviors and, ultimately, improving the well-being of individuals and families. Therefore, further research in this field is not just about fertility; it's about empowering women, enhancing healthcare, and shaping a healthier future for all.

VI. CONCLUSION

In conclusion, the research on the effect of lifestyle on female infertility underscores the critical interplay between our daily choices and reproductive health. It is abundantly clear from this body of work that lifestyle factors, encompassing diet, physical activity, substance use, and stress management, have a profound influence on a woman's fertility journey. As we navigate the complexities of modern life, these findings offer valuable insights and opportunities for both individuals and healthcare providers. Understanding the significance of lifestyle choices in fertility is not only a matter of reproductive well-being but also one of overall health and quality of life.

This research equips individuals with knowledge that empowers them to take control of their own fertility destiny, enabling them to make informed choices that can potentially mitigate the risk of infertility. It emphasizes the importance of embracing healthier lifestyles, not just for the sake of fertility but for long-term well-being.

Furthermore, this research holds the potential to destigmatize infertility. By recognizing the role of modifiable factors, it shifts the conversation away from blame and shame toward a more compassionate and proactive approach to addressing fertility challenges. On a broader scale, the insights garnered from this research have far-reaching implications. They inform public health campaigns, policy decisions, and healthcare practices, encouraging societies to prioritize healthier living and support reproductive health across the lifespan. In doing so, this research contributes to a future where individuals and couples can navigate their fertility journey with greater confidence, where healthcare is more tailored and data-driven, and where the societal understanding of fertility aligns with the realities of modern life. In essence, the research on the effect of lifestyle on female infertility transcends the realm of reproductive science. It is a testament to the profound connection between how we live and our ability to create life. As we continue to delve into this intricate relationship, we unlock a world of possibilities for individuals, families, and societies alike—a world where fertility is understood, embraced, and supported as an integral facet of human health and happiness.

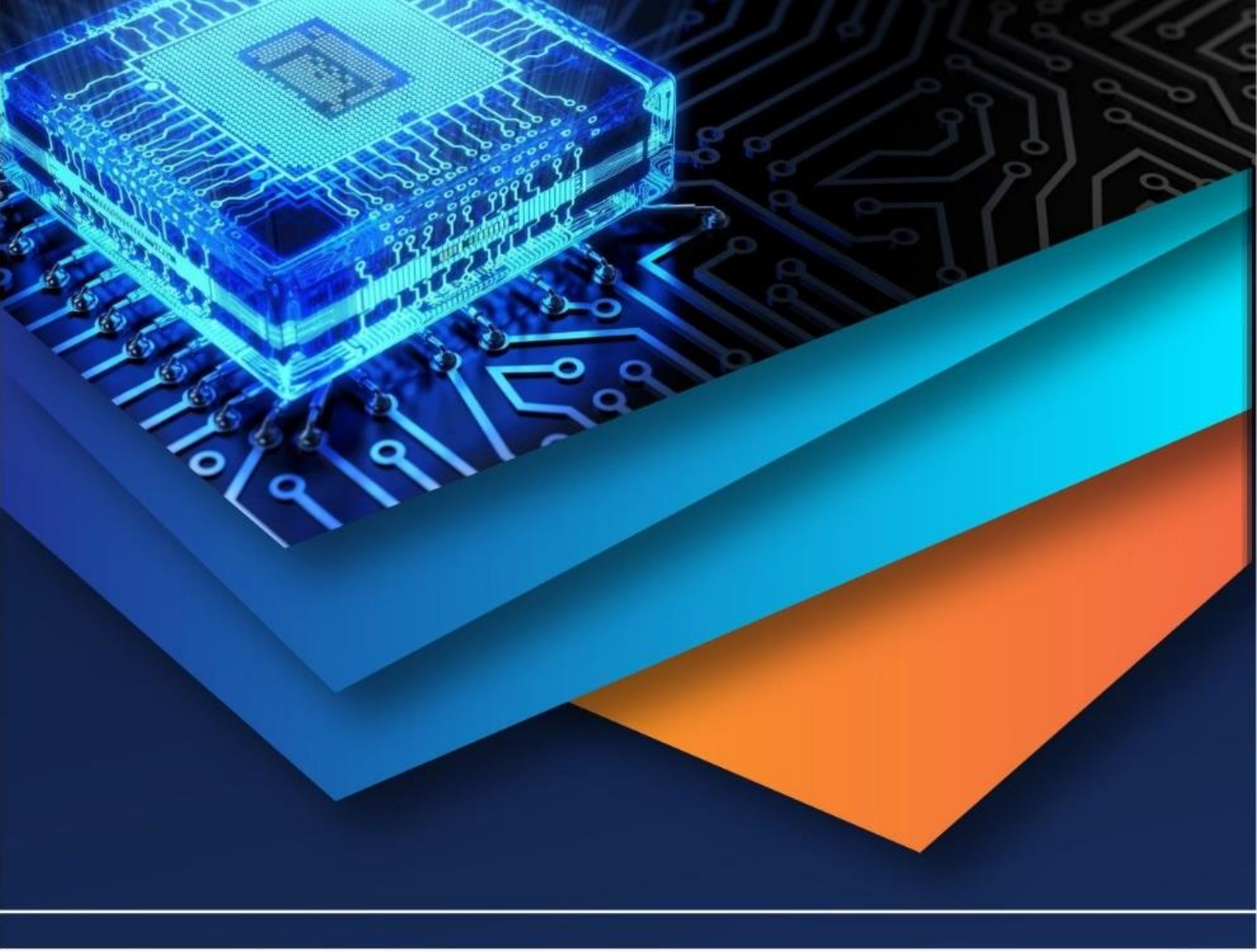
REFERENCES

[1] Anderheim l , Holter H, Bergh C, Moller A.Does Psychological stress affect the outcome of in vitro Fertilization?, Hum Reprod, 2005, vol. 20 (pg. L2969-2975LL2969-2975).
[2] Angell RR.Aneuploidy in older women. Higher Rates of aneuploidy in oocytes from older women, Hum Reprod, 1994,vol. 9 (pg. 1199-1200).
[3] Adams, DW Polson, S Franks S. Br Med J, 1986, 293: 355-9.
[4] OO Adetoro, and EW Ebomoyi. African Journal of Medicine and Medical Sciences, 1991, 20,1:23-7.
[5] Agboola. Textbook of Obstetrics and Gynaecology, Heinman Educational Books, Ibadan, Vol 1, 2004, 174-176.
[6] World Health Organization. Obesity and Overweight fact sheet 2016. Available at: http://www.who.int/mediacentre/factsheets/fs311/ en/. Last accessed March 6, 2017.
[7] Proctor L. Priorities for the next 10 years of human Microbiome research. Nature. 2019;569(7758):623– 625. doi: 10.1038/d41586-019-01654-0.
[8] Brkovich AM, Fisher WA. Psychological distress And infertility: forty years of research. J Psychosom Obstet Gynecol. 1998;4:218–228. Doi: 10.3109/01674829809025700.
[9] Sharma, R., Biedenharn, K. R., Fedor, J. M., & Agarwal, A. (2013a). Lifestyle factors and reproductive health: taking control of your fertility. Reproductive Biology and Endocrinology: RB&E, 11(1). https://doi.org/10.1186/1477-7827-11-66
[10] Kimberly L, Case A, Cheung AP, Sierra S, AlAsiri S, Carranza-Mamane B, Case A, Dwyer C, Graham J, Havelock J. Et al. Advanced reproductive age and fertility: No. 269, November 2011. Int J Gynaecol Obstet. 2012;117:95–102. Doi: 10.1016/j.ijgo.2011.11.002.
[11] Chavarro JE, Toth TL, Wright DL, Meeker JD, Hauser R. Body mass index in relation to semen quality, sperm DNA integrity, and serum reproductive hormone levels among men attending an infertility clinic. Fertil Steril. 2010;93:2222– 22231. Doi: 10.1016/j.fertnstert.2009.01.100.
[12] Kirchengast S, Gruber D, Sator M, Hartmann B, Knogler W, Huber J. Menopause-associated differences in female fat patterning estimated by dual-energy X-ray absorptiometry. Ann Hum Biol. 1997;24:45–54. Doi: 10.1080/03014469700004762.
[13] Grodstein F, Goldman MB, Cramer DW. Body mass index and ovulatory infertility. Epidemiology. 1994;5:247–250. Doi: 10.1097/00001648-199403000-00016
[14] Han Z, Mulla S, Beyene J, Liao G, McDonald SD. Maternal underweight and the risk of preterm birth and low birth weight: A systematic review and meta-analyses. Int J Epidemiol. 2011;40:65–101. Doi: 10.1093/ije/dyq195.
[15] Stewart DE, Robinson E, Goldbloom DS, Wright C. Infertility and eating disorders. Am J Obstet Gynecol. 1990;163:1196–1199. Doi: 10.1016/0002-9378(90)90688-4.
[16] Freizinger M, Franko DL, Dacey M, Okun B, Domar AD. The prevalence of eating disorders in infertile women. Fertil Steril. 2010;93:72–78. Doi: 10.1016/j.fertnstert.2008.09.055.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

[17] Homan GF, Davies M, Norman R. The impact of lifestyle factors on reproductive performance in the general population and those undergoing infertility treatment: a review. Hum Reprod Update. 2007;13:209–223. Doi: 10.1093/humupd/dml056.
[18] Meirow D, Biederman H, Anderson RA, Wallace WH. Toxicity of chemotherapy and radiation on female reproduction. Clin Obstet Gynecol. 2010;53:727–739. Doi: 10.1097/GRF.0b013e3181f96b54.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)