

# Impact of Lifestyle Factors on Reproductive Health Among Fertile Women in Shimla, Himachal Pradesh

*Shyama*

*Ph.D. Research Scholar, Department of Nursing, Mansarovar Global University, Sehore (MP)*

*Dr. Nelson Jewas*

*Dean, Faculty of Nursing Sciences, Mansarovar Global University, Sehore (MP)*

## Abstract

Reproductive health is a vital component of women's total well-being, profoundly affected by lifestyle choices. This study examines the influence of dietary practices, physical activity, stress levels, drug consumption, and sleep patterns on the reproductive health of fertile women in Shimla, Himachal Pradesh. A cross-sectional methodology was employed to gather data from 148 women aged 20 to 45 via structured questionnaires. Research indicates substantial links between detrimental lifestyle choices and negative reproductive health consequences, including irregular menstrual cycles, fertility issues, and pregnancy problems. The research underscores the need of specific public health initiatives and lifestyle changes to improve reproductive health results.

**Keywords:** Reproductive health, Lifestyle factors, Fertility, Women's health, Healthy habits

## Introduction:

Women's physical and mental well-being can be protected by ensuring that they have adequate reproductive health. There is a wide range of living styles among the people who live in Shimla, which is a hilly region that is distinguished by unusual climatic and socio-cultural characteristics. There are a number of lifestyle factors that can have a substantial impact on reproductive health outcomes, such as the regularity of menstruation, fertility, and pregnancy outcomes. These factors include diet, physical activity, stress management, drug usage, and sleep. Within the population of fertile women residing in Shimla, the purpose of this study is to investigate the interplay of these individual characteristics.

Women's physical and mental well-being can be protected by ensuring that they have adequate reproductive health. There is a wide range of living styles among the people who live in Shimla, which is a mountainous region with its own unique climatic and sociocultural characteristics. There is a substantial relationship between lifestyle factors and reproductive health outcomes, such as menstrual cycle regularity, fertility, and pregnancy outcomes. These lifestyle factors include eating, physical activity, stress management, drug usage, and sleep amount. Within the population of fertile women residing in Shimla, the purpose of this study is to investigate the interplay of these individual characteristics.

Changes in diet, levels of physical activity, levels of stress, and exposure to environmental toxins are becoming increasingly characteristic of contemporary lifestyles. Numerous illnesses, including monthly irregularities, fertility, polycystic ovarian syndrome (PCOS), and pregnancy outcomes, are impacted as a result of these alterations, which have substantial repercussions for reproductive health. Additionally, things like smoking, drinking alcohol, eating an unhealthy diet, and not getting enough exercise can make reproductive health problems even worse.

In Himachal Pradesh, women's living habits are substantially impacted by the distinct cultural practices that are practiced there as well as the gap between rural and urban areas. Rural women usually engage in intense agricultural work, yet they frequently have limited access to proper nutrition and reproductive healthcare. This

is a typical situation in rural areas. A more sedentary lifestyle has been seen among some demographics in the state as a result of urbanisation and socio-economic developments. This has resulted in an increase in the dangers associated with obesity and reproductive disorders that are related to it.

Within the context of Himachal Pradesh, the purpose of this study is to investigate the intricate relationship that exists between lifestyle factors and reproductive health in women who are fertile. By gaining an understanding of regional variances and lifestyle patterns, the research endeavours to identify preventative measures, policy ideas, and treatments that may be implemented to enhance reproductive health outcomes in the region.

## Literature Review:

Previous studies have demonstrated that there is a significant connection between lifestyle variables and reproductive health of individuals.

A longitudinal research conducted by Vhawal et al. (2023) investigated 500 women over the course of five years. The findings of this study revealed that smoking raises the risk of infertility, chronic stress extends the amount of time it takes to conceive, and obesity is a factor in monthly abnormalities. It was determined using statistical studies, such as survival analysis and logistic regression, that these findings were accurate. Following a similar pattern, Uncu and Duman (2024) conducted research on 172 Turkish women who were getting fertility-related treatment. Furthermore, their findings, which were based on the Healthy Lifestyle Behaviour Scale and the Fertility Awareness Scale, demonstrated that although variations in exercise frequency, smoking behaviours, and depression history were identified between women who were fertile and women who were infertile, these differences did not meet the criteria for statistical significance. On the other hand, it was shown that both cognitive and somatic awareness played a significant effect ( $p < 0.001$ ) in the outcomes of fertility.

In spite of the fact that these studies offer useful insights, there are still gaps about the effects that are particular to regions on reproductive health. By concentrating on the one-of-a-kind sociocultural and environmental setting of Shimla, the purpose of this study is to help solve that problem.

## Research Methodology

**Objectives:** To Assess the knowledge and awareness of lifestyle factors affecting reproductive health among fertile women in Shimla.

### *Hypotheses:*

$H_0$ : There is no significant difference regarding the knowledge and awareness of lifestyle factors affecting reproductive health among fertile women in Shimla.

$H_1$ : There is a significant difference regarding the knowledge and awareness of lifestyle factors affecting reproductive health among fertile women in Shimla.

### *Operational Definitions:*

**Knowledge regarding lifestyle factors:** Knowledge of lifestyle factors can help people make informed choices that promote health and prevent disease.

**Awareness:** People's awareness of healthy eating has increased in recent years.

**Reproductive Health:** Reproductive health is a state of physical, mental, and social well-being in the reproductive system.

**Knowledge:** Knowledge is understanding and awareness of something. It refers to the information, facts, skills, and wisdom acquired through learning and experience in life.

**Sample size:** The 148 Lifestyle factors affecting reproductive health among fertile women selected from Shimla (HP).

**Sample Technique:** A convenient sample technique was used to collect data.

**Development of tool:** Structured questionnaires consisting of 15 multiple-choice questions were developed and utilised for the data collection.

### Data Interpretation:

**Age Distribution:** The majority of participants (36.5%) belonged to the 31–35 years age group, followed by 26–30 years (27.7%). Women aged 20–25 years comprised 14.9%, while those aged 36–40 years accounted for 16.2%. The lowest representation was from the 41–45 years category (2.7%). This distribution indicates that a significant portion of the study population is in their prime reproductive years, making the findings highly relevant to fertility-related health concerns.

**Education Level:** A considerable proportion of participants (43.2%) had attained graduate-level education or higher, followed by those with higher secondary education (29.7%). Women with only primary or secondary education comprised 18.9%, while 8.1% had no formal education. This suggests a relatively educated population, which may influence awareness and decision-making regarding reproductive health.

**Employment Status:** Among participants, 35.8% were employed in either the private or public sector, while 25.7% were unemployed. Self-employed women constituted 23.6%, and homemakers accounted for 14.9%. The diversity in employment status highlights variations in lifestyle, stress levels, and access to healthcare, which could impact reproductive health outcomes.

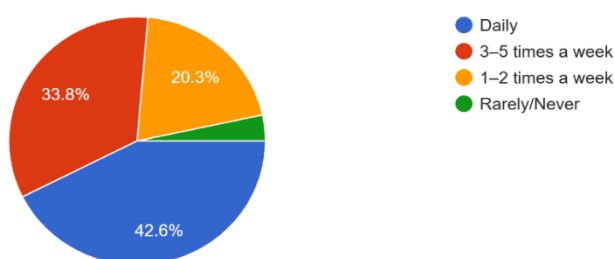
Particulars	Sub categories	Frequency	Percentage
<b>Age</b>	20–25 years	22	14.9
	26–30 years	44	27.7
	31–35 years	54	36.5
	36–40 years	24	16.2
	41–45 years	04	2.7
<b>Education</b>	No formal education	12	8.1
	Primary/Secondary education	28	18.9
	Higher Secondary	44	29.7
	Graduate and above	64	43.2
<b>Employment</b>	Unemployed	38	25.7

Status	Self-employed	35	23.6
	Employed (private or public sector)	53	35.8
	Homemaker	22	14.9

The figure illustrates the frequency of balanced diet consumption among 148 respondents: 42.8% reported daily consumption, 33.8% consumed it 3 to 5 times a week, 20.5% did it 1 to 2 times a week, while a minority reported rarely or never consuming a balanced diet.

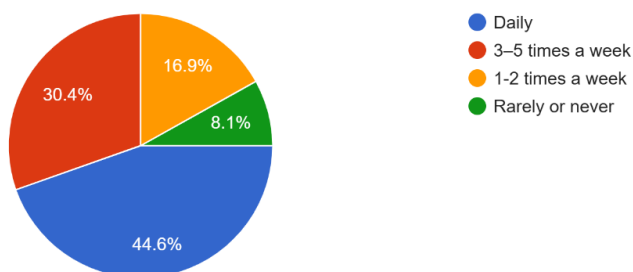
How often do you consume a balanced diet (including fruits, vegetables, and protein sources)?

148 responses



How frequently do you engage in physical activity (e.g., walking, exercise, yoga)?

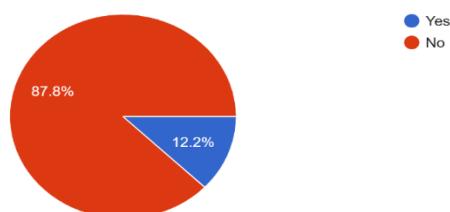
148 responses



Approximately 44.6% of the 148 respondents engage in physical activity (such as walking, exercise, or yoga) on a daily basis, 30.4% do so three to five times per week, 16.9% do so one to two times per week, and 8.1% do so infrequently or never. The figure presented above illustrates the frequency with which they engage in physical activity.

Do you smoke or use tobacco products?

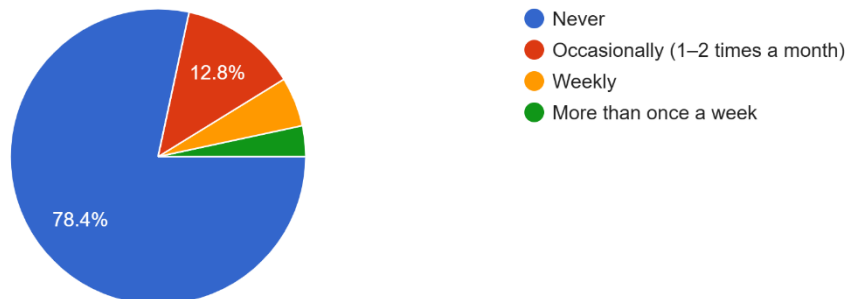
148 responses



The data shown in the figure reveals that 87.8 percent of the 148 individuals do not smoke or consume tobacco products, while 12.2 percent do.

How often do you consume alcohol

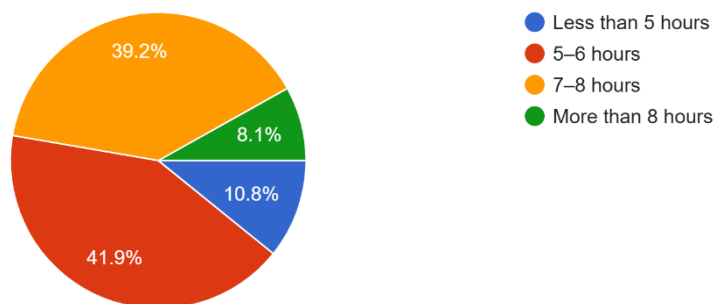
148 responses



In the figure, it is shown that 78.4% of the 148 respondents do not use alcohol, while 12.8% of them do consume alcohol sometimes 1–2 times a month, and the least number of respondents do consume alcohol more than once per week.

How many hours of sleep do you get per night on average?

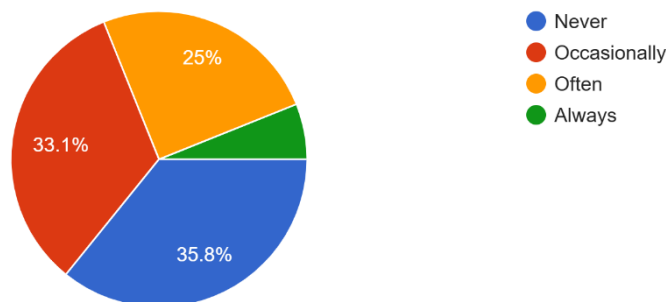
148 responses



The data shown in the figure above reveals that around 41.9% of the 148 respondents sleep for a total of 7-8 hours every night, 30.2% sleep for 7-8 hours, 10.8% sleep for less than 5 hours, and 8.1% sleep for more than 8 hours.

How often do you experience high stress levels?

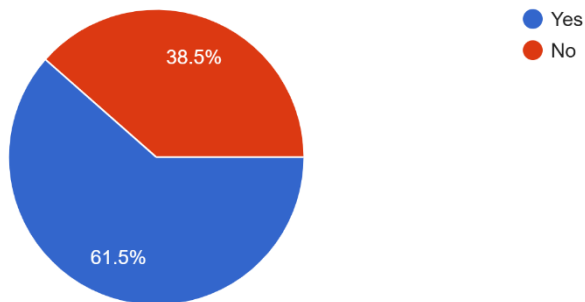
148 responses



The figure demonstrates that they do, in fact, suffer substantial amounts of stress. 35.8% of the 148 respondents never experience high levels of stress, whereas 33.1% of them do experience high levels of stress occasionally, 25% of them frequently, and the least number of respondents usually.

Is your menstrual cycle regular (occurring every 21–35 days)?

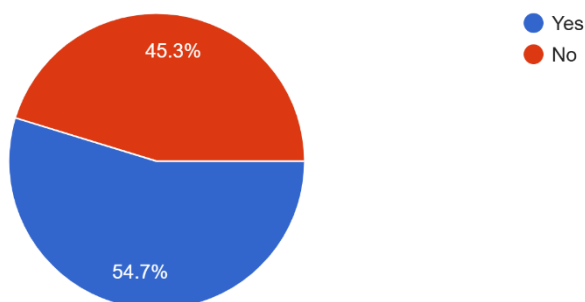
148 responses



The figure demonstrates that 61.5% of the 148 respondents have a menstrual cycle that is regular (that is, it occurs every 21-35 days), whereas 38.5% of the respondents have a menstrual cycle that is not regular.

Have you experienced any difficulty in conceiving (if applicable)?

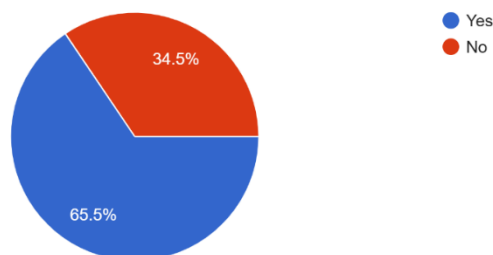
148 responses



According to the data presented in the figure above, 54.7% of the 148 respondents reported having difficulties conceiving (if relevant), whereas 45.3% of the respondents did not report having any problem conceiving.

Do you frequently experience symptoms like abdominal pain, irregular bleeding, or severe cramps during your menstrual cycle?

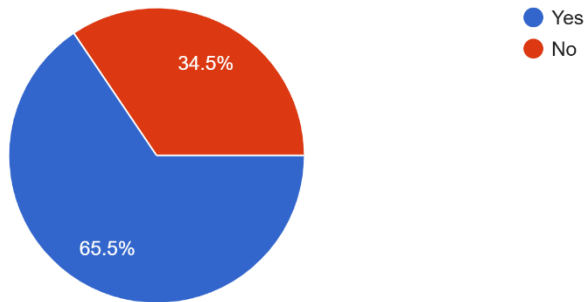
148 responses



They regularly encounter symptoms such as stomach discomfort, irregular bleeding, or severe cramps throughout the menstrual cycle, as seen in the figure above, which reveals that 65.5% of the 148 respondents experience these symptoms, while 34.5% of the remaining respondents do not experience them.

Have you ever consulted a healthcare professional for reproductive health concerns?

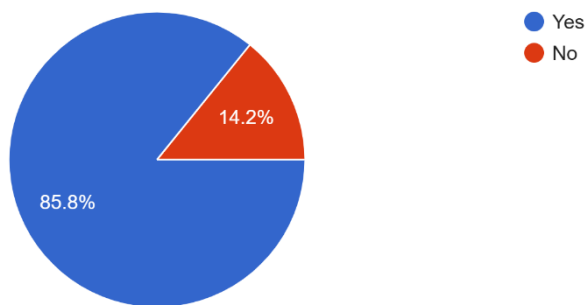
148 responses



The result demonstrates that 65.5% of the 148 respondents had ever sought the advice of a healthcare expert on issues related to their reproductive health, while the remaining respondents did not seek their advice.

Do you believe your lifestyle choices impact your reproductive health?

148 responses



The data that is presented above demonstrates that 85.8% of the 148 respondents feel that lifestyle choices have an effect on reproductive health, whereas 14.2% of the remaining respondents do not believe that lifestyle choices have an effect on reproductive health.

## Conclusion

The findings of this study underscore the significant impact of lifestyle factors on reproductive health among fertile women in Shimla. Many participants exhibited poor dietary habits, insufficient physical activity, and high stress levels, contributing to adverse reproductive outcomes. While a majority recognized the influence of lifestyle choices on reproductive health, a considerable proportion still engaged in unhealthy behaviors.

Addressing these issues through targeted interventions can enhance reproductive health and overall well-being. Future research should explore longitudinal data to assess the long-term impact of lifestyle modifications on fertility and reproductive outcomes.

## Recommendations

- **Dietary Improvements:** Promote balanced diets rich in fruits, vegetables, and whole grains through awareness campaigns and community-based programs.
- **Physical Activity Encouragement:** Implement fitness programs, yoga sessions, and structured exercise routines to promote an active lifestyle.
- **Stress Management Initiatives:** Introduce stress-relief workshops, mindfulness training, and access to psychological counseling services.
- **Substance Use Awareness:** Conduct educational campaigns on the reproductive health risks associated with smoking and alcohol consumption.
- **Sleep Hygiene Education:** Organize workshops on the importance of quality sleep and strategies to improve sleep patterns.
- **Policy Support:** Advocate for public health policies that integrate reproductive health education into existing healthcare programs, ensuring accessibility for both urban and rural populations.

By implementing these measures, policymakers and healthcare providers can improve reproductive health outcomes and contribute to the well-being of women in Shimla and similar regions.

## References

1. World Health Organization. (2021). "Reproductive Health Indicators."
2. Ministry of Health and Family Welfare, India. (2020). "National Family Health Survey (NFHS-5)."
3. Gupta, S., & Sharma, R. (2019). "Impact of Lifestyle on Reproductive Health: A Review." Indian Journal of Public Health.
4. National Institute for Health and Care Excellence (NICE). (2021). "Guidelines on Lifestyle and Reproductive Health."
5. Journal of Chemical Health Risk Archives Vol. No 13.4s (2023). Journal of Clinical Medicine of Kazakhstan. DOI: <http://doi.org/10.23950/jcmk/15570>