

Analysis of Women Hormonal Disorder on Behaviour and Work Productivity with Special Reference to PCOS and Mensural Issues in Rajasthan

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Abstract:

Menstrual health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in relation to the menstrual cycle.

Menstrual issues, though, one of the important physical and mental milestones in a woman's life, many women lack information about what is taking place and what are their options.

Feminine health and hygiene is essential and needs to be maintained everywhere whether at home, workplace, schools and colleges. According to the World Health Organization around 2 billion people still lack access to proper sanitation facilities. It is said that only 16% of women in India have access to sanitary napkins. When we talk about India, another major hurdle is that 82% of female lack knowledge about a sanitary napkin. Now a days, cases of PCOD and pre - menopauses (Rajjnovitri) are increasing tremendously. Polycystic ovarian syndrome (PCOS) at **31 percent has increased by 42 percent from 2021**. Menstrual disorders such as dysmenorrhea, menorrhagia, and irregular cycles are common among women at their reproductive age and its impact on their physical, behavior and emotional changes. These disorders affect their normal life routine, social activities and work culture.

Even more so, well educated women are also unaware of healthy hygiene practices during their periods.

The impact of menstruation on women's health manifests itself on different levels. The socio-cultural dimension shows the influence of societal and cultural norm, which regulate the way of dealing with menstruating women. At Present the transition from "healthy menstruation" to "menstruation related diminution of quality of life", to "Menstrual Disease" can be witnessed. Today, 20% females are facing pre-menopause issues and from missed periods to menstrual cramps, the period problems are common but usually are not considered serious. The uneasy and uncomfortable situation may make

cranky and can adversely affect health.

In a household, women are the cornerstone of the family's overall health while neglecting their own need. **The present Paper highlights awareness level of females about menstrual issues and PCOS and how to overcome by this for effective and quality life.**

Key Words: - effective and quality life, Feminine health and hygiene, menstrual issues and PCOS and social well-being

INTRODUCTION:

With the time being the quality of life of women is deteriorating. Still in today's scenario women are not being aware about the changes in their body, resulting in PCOS/PCODs. PCOS or Polycystic Ovary Syndrome is a condition characterized by the production of higher than normal levels of androgens (male hormones) by the ovaries, resulting in the formulation of small cysts. The hormonal imbalance leads to various symptoms such as irregular menstrual cycles, excessive hair growth (hirsutism), acne, weight gain, hair loss, fertility issues, skin darkening etc., it not only affects physical but also mental conditions as well. In the 21st century/era where women contribute approx. 50 percent in GDP, is it not necessary to shift our attention towards this? Is it not necessary to get people aware of it? Because a woman's health reflects on the entire family, if she is not well, how can we expect the next generation will go well?

Because of the hormonal imbalance a woman can't work as efficiently as she did in her normal days. It not only affects physical condition such as muscle stiffness, cramps, pain in breasts, mood swings, irritability, fatigue, headache, swelling, sleep apnea, insomnia, and restless leg etc. but also affects mental condition drastically results to stress, anxiety, depression and sometimes, according to the research (WHO), they do think of harming self or others, delusion etc. These issues will definitely enhance ill socio-economic society.

PCOS/PCODs are not permanently cured; it totally depends on the awareness and lifestyle of an individual such as maintaining a healthy diet, regular exercise, weight management, medications to regulate menstrual cycles etc. It directly affects the reproductive system and in severe cases it results to infertility also.

There is no labour and employment law framework related to menstrual paid/unpaid leave in India. During such time, women may find it difficult to maintain a consistent level of productivity in an otherwise fast-paced work environment. Many women also suffer from

disorders related to menstruation such as ovarian cysts, endometriosis, dysmenorrhea etc. Organizations have the autonomy to make decisions and provide employment terms that is more advantageous than what is legally mandated.

Impact of hormonal disorder on mental health and physical as well:

Mental health:

- Women with PCOS/PCOD have a higher risk of experiencing depression and anxiety compared to women without the condition
- Hormonal fluctuations can lead to mood swings and irritability
- Due to changes in body during that time, it reduces the confidence level, negative body image perceptions etc.
- Dealing with the challenges associated with PCOS/PCOD, such as fertility concerns, irregular menstrual cycles, and managing symptoms, can lead to increased stress levels.

Physical Impact:

- Physical symptoms of PCOS/PCOD, such as weight gain, acne, and hirsutism, can negatively impact body image and self-esteem

- Hormonal imbalances can disrupt the normal menstrual cycle, affecting reproductive health and fertility
- Insulin resistance and metabolic abnormalities are common in PCOS/PCOD. These can lead to weight gain or difficulty losing weight, increased risk of developing type 2 diabetes, metabolic syndrome, and cardiovascular problems.
- Elevated androgen levels in PCOS/PCOD can cause excessive hair growth (hirsutism) on the face, chest, back, or abdomen. It can also lead to acne and oily skin.

OBJECTIVES:

The objective of this research is to investigate the impact of hormonal disorders on physical as well as mental.

ü **Assess the physical health consequences of hormonal disorders:** This includes examining the effects of hormonal disorders on body weight, metabolism and other physical aspects such as hair loss, acne, oily skin etc.

ü **Explore the mental health implications of hormonal disorders:** This involves investigating the relationship between hormonal disorders and mental health conditions such as depression, anxiety, mood disorders and in severe case thinking of suicide also.

ü **Examine the interplay between physical and mental health:** This objective focuses on understanding the bidirectional relationship between physical and mental health in individuals with hormonal disorders and how one aspect may affect the other.

ü **Identify family history related to the impact of hormonal disorders on health:** This includes examining the inheritance patterns of PCOS/PCOD and assess the likelihood of the condition being passed onto future generations.

ü **Evaluate the effectiveness of interventions and treatments:** Various interventions and treatments are available to address the hormonal imbalances and associated symptoms of PCOS/PCOD:

· Lifestyle modifications, including dietary changes, regular exercise, and weight management, are often recommended as a first-line approach. These interventions aim to improve insulin sensitivity, regulate hormone levels, and promote overall well-being.

· Additionally, medical treatments, such as hormonal contraceptives, anti-androgen medications and insulin-sensitizing agents, may be prescribed to address specific symptoms and restore hormonal balance.

· Surgical options, such as ovarian drilling or ovarian cyst removal, may be considered in certain cases.

· Alternative therapies, including herbal supplements and acupuncture, have also been explored as supplementary therapies.

However, the effectiveness of interventions and treatments may vary among individuals, and a personalized approach is often necessary.

LITERATURE REVIEW:

Women are the basic unit of society. They make a family; family makes society and ultimately society makes a country. In order to make a family, they go through the menstrual process every month. The menstrual cycle of women starts from the Menarche (average age 13) to menopause (average age 50 years). It is regulated by interaction of hormones such as Luteinizing Hormone and Follicle Stimulating Hormone which are produced by the pituitary gland, promote ovulation and stimulate the ovaries to produce Estrogen and Progesterone.

So, the imbalance between these hormones causes various diseases like PCOS and other menstrual issues in women which affect their mental as well as physical health.

Polycystic ovary syndrome (PCOS) is a hormonal imbalance that occurs when ovaries create excess hormones. Ovaries of women who are suffering from PCOS, would produce unusually high levels of hormones called androgens. This causes reproductive hormones to become imbalanced. As a result, women with PCOS often have irregular menstrual cycles, missed periods and unpredictable ovulation. Small follicle cysts (fluid-filled sacs with immature eggs) may be visible on ovaries on ultrasound due to lack of ovulation (anovulation). Symptoms of PCOS include **Irregular periods, Abnormal hair growth, Acne, Obesity, Infertility, Skin tags etc.**

Other hormone imbalances in women include ovarian cancer, early menopause, hormone replacement or birth control medications, and primary ovarian insufficiency (POI).

These imbalances of hormones in women impact them mentally and physically. It can cause or worsen symptoms like insomnia, hot flashes, mood fluctuations, anxiety, or depression. According to the National Institute of Mental Health, continuously heightened stress levels can result in a wide array of health issues, including mental health disorders such as anxiety or depression. Physical impacts of the same include Unexplained changes in weight, Profuse sweating, hot flashes, Sleeplessness, fatigue-Dry skin or rashes, Vaginal dryness, Changes in blood pressure, heart rate, Osteoporosis (weak, brittle bones), Headaches, blurred vision, Acne during or before menstruation, Uterine bleeding not linked to menstruation, Deepening of voice etc.

One of the Obstetrics and Gynecology researchers (Scheop Mark E, Nieboer E Theodoor and all, 2017) found out that 13.8% (where N=4514 women) of all women were found absenteeism during their menstrual periods which contributes to 3.4% of women (where n = 1108) reported absenteeism on every or almost every menses cycle.

Another study conducted by (Hennegan J, Kibira P S and all, 2020) viewed that women's menstrual health in the workplace requires more attention which directly influences their physical discomfort, work absences, confidence level at workplace, anxiety, women's life at work etc. Oziva, India's leading certified clean plant-based nutrition and wellness brand (2021), conducted a study which concluded that 25% of Indian women do not know about PCOS and PCOD while 65% of them are not aware of symptoms of PCOS.

The World Bank briefed about Menstrual Health and Hygiene (May, 2022), that it plays a very basic role in menstruating girls and women to reach their full potential. So, the World Bank took a holistic approach in working to improve menstrual hygiene across the world. It estimated that more than 500 million lack access to menstrual products and adequate facilities for menstrual hygiene management. The menstruators are constrained by cultural taboos and discriminatory social norms and hence these affect negatively to them in their education, health, safety and human development.

J. Family Med Prime Care (2019), conducted study among women who have attained Menarche and not yet attained Menopause in the urban areas of Puducherry, so found the result that majority of home-makers who belonged to lower socio-economic state and without formal education, the prevalence of dysmenorrhea was 45% and that of menorrhea was 17% and women without dysmenorrhea was found poor compared with normal women in physical, psychological, social and environmental domain. A research work done by Kamalpur M.B. Kumar, Reddy Somannath (2013), that women's widespread ignorance about matters related to their health poses a serious overview to their well-being.

A recent study estimated that between 2-5 million Indians are currently infected with HIV (AIDS Control and Prevention Project of Family Health International et, al; 1996), the highest rate of infection are found in population groups with certain high-risk behaviors (sex workers, sexually transmitted disease patients). Despite the alarming growth of the epidemic, most women in India had never heard about AIDS. Indian women benefit from strengthened national HIV/AIDS education programs.

RESEARCH DESIGN

We have conducted a pivot survey to get understand a problem related to women health. We have prepared a questionnaire for our survey that contains 10 questions, which was circulated to girls, women randomly.

SAMPLING PROCEDURE:

Random sampling method has been followed to choose the respondents from the women investors in Rajasthan with selective districts. The population chosen for this study is women who stay in Rajasthan as the research revolves around the investment habits and the financial requirements of women investors.

- **Population:** Population includes women referred by Doctors and others.
- **Sample Unit:** Women candidates including girls at different age group.
- **Sampling technique:** - Random sampling technique is used to collect the data.
- **Sample size:** - The sample size of 500 respondents will be taken from major cities of Rajasthan, viz., Jaipur, Jodhpur, Bikaner

COLLECTION OF DATA

- **Method of Data Collection**
 - a) **Primary data:** Primary data will be collected by a detailed questionnaire and also by conducting in depth personal interviews of the female respondents from main cities (Jaipur, Jodhpur & Bikaner) of Rajasthan.
 - b) **Secondary Data:** For this study secondary data will be collected through various sources such as reports and records of the related government departments, magazines, internet, and company report and business journals.

DATA SCALING AND MEASUREMENT

In order to increase accuracy of research work, qualitative data scaling techniques such as nominal scale and ordinal scale are used.

TOOLS AND METHODS OF DATA ANALYSIS

- **Tabulation and Classification of data:** The data will be collected through a structured questionnaire and schedule. The data has classified on the basis of demographic variables like age, education, occupation, income, marital status, and area residence held by the respondents.

- **Data Analysis Tools:** The present study is undertaken with a view to study the level of awareness and impact of hormonal disorder on women behaviour & productivity in Rajasthan. In this regard statistical tools like simple percentage analysis, chi-square, t-test, ANOVA and weighted score analysis

The demographic profile of the women investors will be analyzed with the simple percentage analysis. Chi-square test will be applied to examine the significance of relationship between the demographic variables and level of awareness of women & girls. Analysis of variance will be used to examine the association between demographic variables and hormonal disorder factors influencing women health.

The survey's sample size was 500. The women were from urban and rural area. The findings of the survey were concluded here:

- i) Approx 80% of our respondents were from urban area where as rest 20% were from rural area [Diagram 1].
- ii) We found that 85% of our respondents were unmarried [Diagram 2] and maximum of them belong to 21-22 age group.
- iii) 28.6% women faces problem of irregular periods which is one of the symptoms of PCOS. During menstrual cycle of women, 40% of them faces heavy pain in abdomen and back. In this hormonal changes, 23.3% women

faces no problem but the rest of 76.7% have problems like acne, heavy bleeding, pain & unexpected weight loss and gain [diagram 2]. 70% of women know more girls who are facing the same issue.

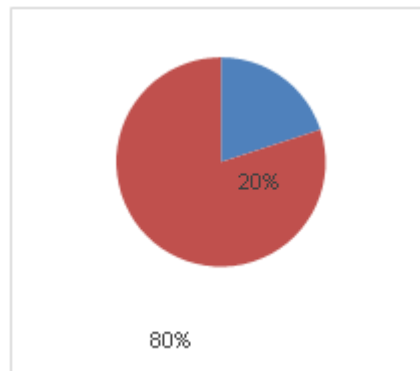


Diagram 1

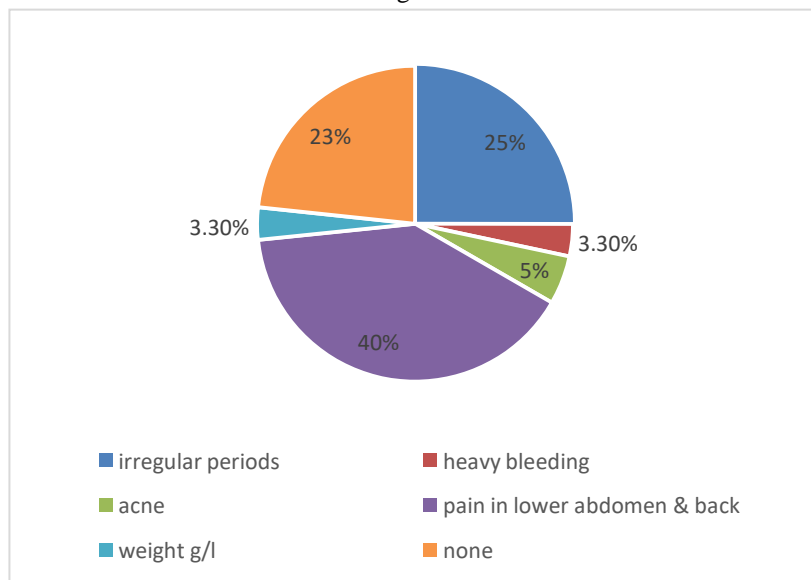
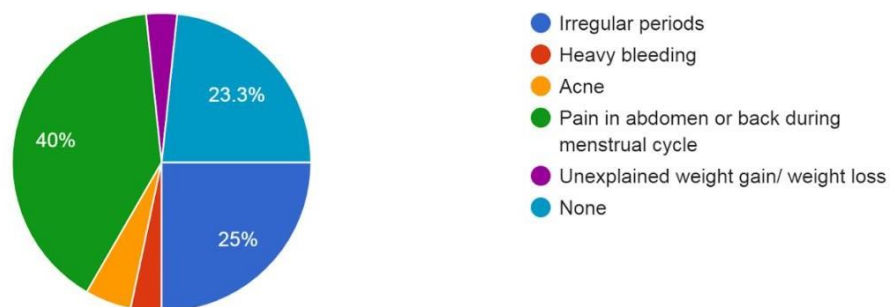


Diagram 2

6) Are you facing any find of hormonal changes?

60 responses



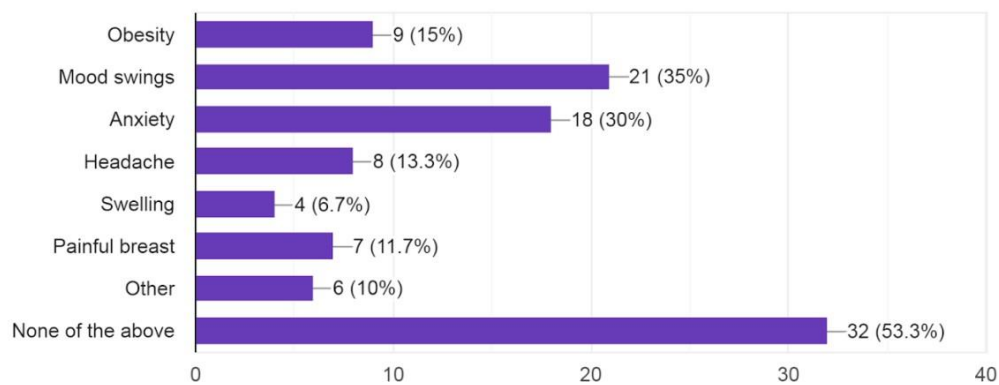
iv) Women who are diagnosed with PCOS, have major problem of mood swings and anxiety. From the questionnaire we came to know that 75% women haven't consulted to doctor yet. And these issues not only affect their

physical life but also cause a major mental impact on their regular day to day life. It affects their routine work, and lifestyle. And each of them knows 0-5 % of girls who are affected from the same.

- 25% women are facing irregular periods
- Approx. 40% Pain in abdomen or back during menstrual cycle
- Approx. 3.3% women are facing heavy bleeding during their periods
- Approx. 3.3% Unexplained weight gain/ weight loss
- Approx. 5% faces Acne issue

7) What kind of problems you faced/ facing after being diagnosed of PCOS?

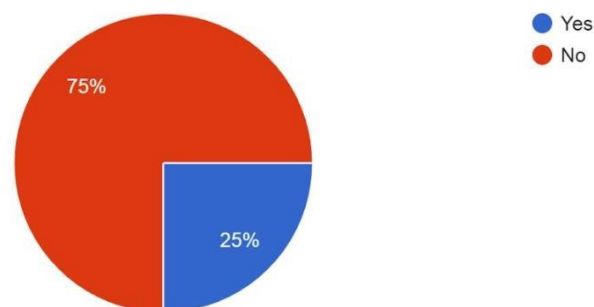
60 responses



According to the data, approx. 30-35% women are facing mood swings and anxiety because of PCOS/PCOD issue, 11.7% feels pain in breast, 15% feel that they gain because of hormonal imbalance.

8) Are you consulting with any doctor?

60 responses



Based on the data, we observe that 75% women are not aware about the changes happen in their body that's why they don't counsel with their doctors.

CONCLUSION:

Rajasthan is the largest state in India in terms of area and seventh largest in terms of population. From the day of independence, it was backward in education, health and resources. The main causes of the backwardness are lack of resources and its geographic location. The sex ratio of Rajasthan represents men is always in more numbers than women. The estimated population of Rajasthan is 79,502,477 in 2023, where women are only 38,266,753 in number. The ratio of male to female is 60:40. For this research our target audience is female who belongs to the age of 14-50. 2.3% of the female population belongs to this age group. And from them 75% of the female are from rural area and 25% are from urban area.

While the understanding and recognition of the impact of PCOS/PCOD on mental health have been increasing, there have been several positive changes in recent years:

Online support groups, social media communities, and dedicated organizations are providing platforms for women with PCOS/PCOD to connect, share experiences, and access information on managing mental health. These resources offer a sense of community and reduce feelings of isolation.

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