

# A STUDY ON MENSTRUAL HEALTH AND HYGIENE PRACTICES

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## ABSTRACT

Menstruation is a normal physiological phenomenon for women. It starts at the time of adolescence to before menopause. The main objective of this study was to assess the Menstrual health and hygiene practices of women around Ramanathapuram district. Qualified members were between the ages of under 18 to over 22. 500 members were randomly picked. Among them, 345 members participated in the study. It is clear from the study findings that majority of the women were having good knowledge about menstruation and sanitation practices. A study states that women with normal haemoglobin level result in monthly menstruation with regular menstrual flow. Correlation, Standard Deviation and Level of significance tests were found for Menstrual wellbeing and Cleanliness rehearses. The outcomes are reported in the pie and bar chart with various parameters. Majority of the women under study are free from diagnosing conditions like Endometriosis, Fibroids, Ovarian cysts & PCOS because of their normal haemoglobin content and have good menstrual health and hygiene practices.

**Key words:** Menstruation, Anaemia, PCOS, Statistical approach, Hygiene practices.

## INTRODUCTION

Feminine cycle, or period, is an ordinary women vaginal draining that happens as a feature of month to month cycle. Consistently, the women body gets ready for pregnancy. If no pregnancy happens, at that point monthly cycle happens and afterwards, the uterus, or belly, sheds its coating. The menstrual blood is incompletely blood and mostly tissue from inside of the uterus<sup>(1)</sup>. Menstrual bloodstreams flow from the uterus through the little opening in the cervix through the vagina. Most menstrual periods last from 3 to 7 days<sup>(2)</sup>.

The menstrual cycle is the month to month arrangement of changes a woman's body experiences in groundwork for the plausibility of pregnancy<sup>(3)</sup>. When periods (feminine cycles) come consistently; this is known as the standard menstrual cycle. Having ordinary menstrual cycles is an indication that significant pieces of one's body are working typically. The menstrual cycle gives significant body synthetic concoctions, called hormones, to keep anyone healthy. A cycle is checked from the primary day of 1 period to the principal day of the following time frame. The normal menstrual cycle is 28 days in length. Cycles can extend somewhere in the range of 21 to 35 days in grown-ups and from 21 to 45 days in teenagers. The rise and fall of levels of hormones during the month control the menstrual cycle<sup>(4)</sup>. Haemoglobin also plays a role in helping red blood cells obtain their disc-like shape, which helps them move easily through blood vessels. Every haemoglobin protein can convey four particles of oxygen, which are conveyed all through the body by red platelets. All of the body's billions of cells needs oxygen to fix and look after itself<sup>(5)</sup>.

Menstrual cleanliness manages the medicinal services needs and necessities of women during the menstrual cycle<sup>(6)</sup>. If ineffectively oversaw, the menstrual period might be joined by distress, conceptive tract disease, smelling and humiliation among others<sup>(7)</sup>. These concerns incorporate the decision of the best "time frame security" or female cleanliness items; how frequently and when to change the cleanliness items; washing care of the vulva and vagina just as the alleged advantages of vaginal douching toward the finish of each menstrual period<sup>(6)</sup>. Arrangements for good menstrual cleanliness incorporate home-made cures like bits of cotton fabric which are either set on the underwear or on a homemade belt that wraps around the waist. These fabrics can be washed, dried and utilized again<sup>(6,8)</sup>. Accessible business items for feminine cleanliness during period incorporate pads, tampons and cups<sup>(8)</sup>.

Studies in India have reports that 43% to 88% of young women use washed and reused cotton fabric as opposed to utilizing expendable cushions<sup>(7,9)</sup>. It has been discovered that cleaning of materials is regularly managed without cleanser or with unclean water and drying might be done inside as opposed to in daylight or outside because of social limitations and taboos. These practices may prompt reuse of material that has not been enough sterilized<sup>(9)</sup>.

Reproductive tract infections (RTI) is a significant general wellbeing concern worldwide and prevalent especially in low pay settings<sup>(10,11)</sup>. The extent of this weight can be ascribed to poor menstrual hygiene management (MHM), rather than explicitly transmitted diseases; iatrogenic contaminations; or endogenous contaminations brought about by specialists other than those presented through poor menstrual administration is obscure. RTIs thought to be of most importance to MHM are the endogenous diseases bacterial vaginosis (BV) and vulvovaginal candidiasis (VVC). These vaginal irregular characteristics are essentially non-explicitly transmitted and could conceivably be acquainted with the regenerative tract through the materials utilized for retaining menstrual blood or by poor individual cleanliness during the menstrual period. BV has been related to an expanded danger of HIV contamination<sup>(12,13)</sup>; human papillomavirus disease<sup>(14)</sup> and with unfriendly pregnancy results<sup>(15)</sup>. Vulvovaginal candidiasis has additionally been related to HIV contamination<sup>(16)</sup>. BV and VVC have comparable symptomatic showcases with vaginal release and bothering albeit numerous diseases stay asymptomatic.

PCOS is very common and is evaluated to be available in 5–7% of conceptive age women if we consider the diagnosis to be based on hyperandrogenism and anovulation<sup>(17,18)</sup>. There is a mild form of PCOS that includes women who have hyperandrogenism and polycystic ovaries but who's ovulatory function is maintained<sup>(19)</sup>. Nonetheless, the disorder is milder and the hyperandrogenism isn't as articulated. These women have huge numbers of indistinguishable dangers from women with progressively exemplary PCOS.

While PCOS happens in at any rate 5% of the populace, the segregated finding of polycystic-showing up ovaries (PAO), which meets the exemplary ultrasonographic criteria, happens in 16–25% of the ordinary populace<sup>(20)</sup>. PAO or PCO (alluding just to the ovarian morphology) is known to happen in hypothalamic amenorrhea and in CAH, where its pervasiveness is 100%<sup>(21)</sup>.

## SUBJECTS AND METHODS

The methodology was followed according to Saajida Sultaana Mahusook *et al.*, 2019<sup>(22)</sup>.

### Kind of study

It was a prospective report.

### Study territory

The examination was done at Ramanathapuram district, Tamilnadu, India.

### Study period

A half-year

### Study population

Qualified members were women between the ages of under 18 to over 22. 500 members were haphazardly picked. Among them, 345 members finished their overview.

### Strategy

A survey was set up as per required data to verify demographics, incorporate all the anticipating data of an individual. Information was gathered, arranged and broke down utilizing Survey Monkey which is online study improvement cloud-based programming. Sample size calculator was used with a margin of error 3% and confidence level of 95% as shown in Table1.

### Educated assent

The members were educated about the exploration and only the intrigued volunteers who agreed the consent were chosen. The researcher guaranteed that the character and subtleties of the respondents will be confidential and utilized uniquely for the exploration reason.

### Measurable Information Investigation

The outcomes were reported in pie (doughnut) and bar chart and determined the level of various parameters. Factual tests like Correlation, Standard Deviation and Level of significance tests were found for Menstrual wellbeing and Cleanliness rehearses.

## RESULTS

A study on Menstrual health and hygiene practices were taken around 345 respondents. The age group of respondents is between below 18 to above 22. Haemoglobin (g/dL) content was normal in 54.78% (n=189), mild anaemic in 32.75% (n=113), moderate anaemic in 11.30% (n=39) and severe anaemic in 1.16% (n=4). About 29.86% (n=103) have signs of anaemia such as Pale gums, Dark circles under the eyes, Bleeding, Numbness in hands and feet while 70.14% (n=242) lacks signs of anaemia. 59.42% (n=205) respondents show regular cyclic pattern and 28.12% (n=97) respondents with irregularity in their cyclic pattern. About 57.68% (n=199) respondents have regular duration of cycle, 26.09% (n=90) respondents have irregular duration of cycle whereas 16.23% (n=56) respondents don't know the duration correctly.

Dysmenorrhea occurs in 71.30% (n=246) of respondents while 28.70% (n=99) of respondents lacks. About 28.99% (n=100) respondents experience very painful while 53.33% (n=184) respondents experience less painful and 17.68% (61) of respondents experience no pain during menstruation. 14.20% (n=49) of respondents take medication for premenstrual syndrome whereas 79.13% (n=273) of respondents avoids. About 16.52% (n=57) have family history of menstrual disorder while 70.72% (n=244) are not. Measures taken during period are usage of sanitary napkins 94.49% (n=326), cloths 2.90% (n=10), cottons 1.74% (n=6) and others 0.87% (n=3). Different cyclic pattern occurs i.e., 44.93% (n=155) experience shorter than 26 days, 47.54% (n=164) experience between 30 to 45 days, 4.06% (n=14) experience between 45 to 60 days and 3.48% (n=12) experiences longer than 60 days.

Mid-cycle spotting occurs in 33.33% (n=115) of respondents whereas 66.67% (n=230) lacks it. Based on survey 30.43% (n=105) have menstrual flow for less than 3 days, 63.77% (n=220) have 3 to 7 days and 5.80% (n=20) have more than 7 days on their menstrual cycle. Respondents experience various type of mid-cycle (ovulation) symptoms such as 27.54% (n=95) sharp stabbing pains, 7.25% (n=25) vaginal dryness, 14.49% (n=50) have both symptoms and 51.01% (n=176) lacks both symptoms. About 42.61% (n=147) experience heavy bleeding during time of stress whereas 57.39% (n=198) are not. Moreover 77.39% (n=267) experience lower back pain during period while 22.61% (n=78) lacks back pain during period. According to this survey respondents dispose their napkins by Incineration (21.74%), Dump in the landfills (18.55%) and Throwing in feminine hygiene bins (59.71%). About 1.74% (n=6) are diagnosed with Endometriosis, 1.74% (n=6) with Fibroids, 2.90% (n=10) with ovarian cysts, 7.54% (n=26) with PCOS and 86.96% (n=300) does not have such conditions.

The information obtained was reported in the pie (doughnut) and bar graph and determined the level of various parameters. Basic statistics and statistical tests such as correlation were found for menstruation health and hygiene practices of the women as observed in Figures 1-3. Positive Correlation between Haemoglobin and Menstrual cycle patterns is 0.893. The study suggests strong evidence that women who have normal Haemoglobin (g/dL) level experience menstrual cyclic pattern between 30 to 45 days. Irregular menstrual pattern maybe because of mild to severe anaemia and conditions such as Endometriosis, Fibroids, Ovarian cysts & PCOS.

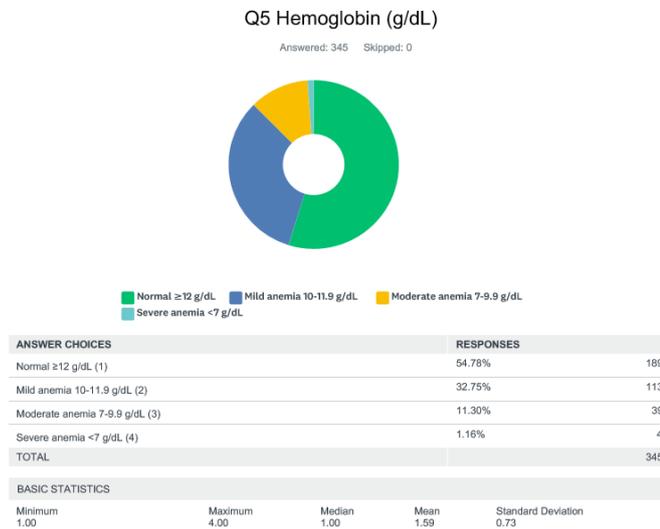


Figure 1: Response and basic statistics for haemoglobin (g/dL) level

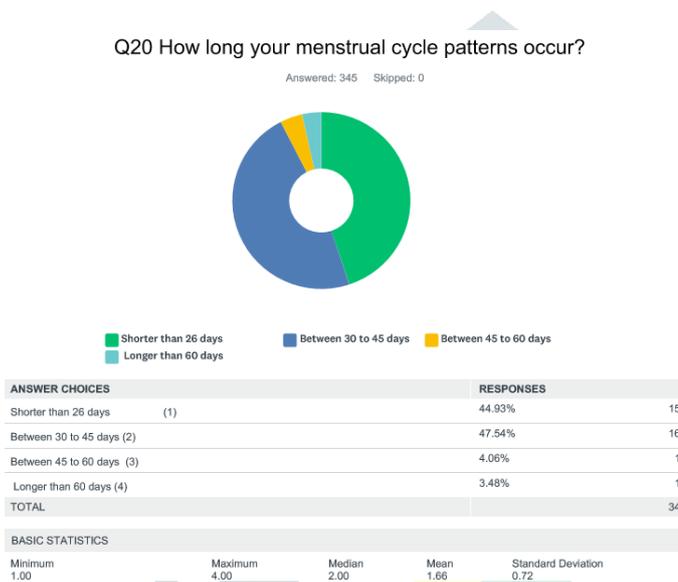


Figure 2: Response and basic statistics for menstrual cycle patterns of the women

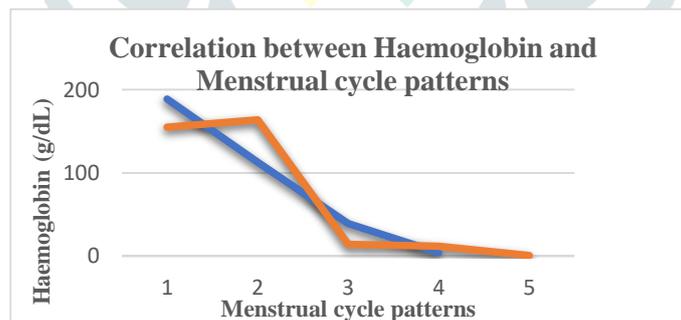


Figure 3: Positive Correlation between Haemoglobin and Menstrual cycle patterns

Population size	Confidence level (%)	Margin of error (%)
500	95%	3
<b>Sample size</b>		
345		

Table 1: Sample size calculator showing the margin of error, confidence level and sample size.

**DISCUSSION**

According to the survey results, most of the women have normal Haemoglobin level so they lack signs such as pale gums, dark circles under the eyes, bleeding, numbness in hands and feet and a smaller number of women suffer from severe anaemia. The major source of drinking water is filtered water and rarely drinks bottled water. Based on the collected information, women eat one or fewer serves of fruits and vegetables every day and regularly take breakfast. Women in Ramanathapuram District is more comfortable with Nuclear family when compared to joint and single-family and they have good menstrual regularity in their family history.

Majority of women experience regular cycle pattern, and some were unaware of menstruation and its duration. During the menstrual cycle, most of the women experience pain (Dysmenorrhea) whereas the major percentage of women has less pain because of their healthy lifestyle. Various measures are taken during the period and frequently change sanitary napkins between 4 to 6 hours. Premenstrual symptoms like frustration, anger, irritability, feel flat, depressed, weepy, feel cold, tired but a higher proportion of study lacks premenstrual symptoms. Women with normal haemoglobin level may have the duration of flow in between 30 to 45 days of menstrual cycle pattern and major population lacks mid-cycle spotting. Colour of the menstruation vary according to their haemoglobin status and higher proportion bleeds bright red colour because of normal haemoglobin level which indicates the good menstrual health.

A study by Dasgupta and Sarkar, 2008 reports that among 160 adolescent girls of a secondary school situated in the field practice area of Rural Health Unit and Training Centre, 24 Singur, West Bengal. From the result it was demonstrated that out of 160 respondents, almost 67.5% girls were aware about menstruation prior to attainment of menarche. Moreover, menstrual flow occurs between 3 to 7 days which results in good menstrual health and most of them lacks mid-cycle symptoms like sharp stabbing pains and vaginal dryness. The major population lacks heavy bleeding during times of stress, strong pelvic cramping with sharp pains or nausea and they frequently experience lower back pain following their periods. Sterile disposing methods results in good menstrual health and hygiene practices. Irregular cycle regularity may also be because of Endometriosis, Fibroids, Ovarian cysts, PCOS. But most of the women in Ramanathapuram district lacks these diagnosing conditions because of their normal haemoglobin content and they have menstrual health and good hygiene practices.

## CONCLUSION

A Study on Menstrual Health and Hygiene practices concludes that women with normal haemoglobin level leads to good menstrual health and may not experience menstrual disorders. These data illustrate that women in Ramanathapuram district follow healthy nutritional practices which result in better diet and they lack diagnosing conditions like Endometriosis, Fibroids, Ovarian cysts and PCOS. More awareness regarding good nutritional and hygienic practices, usage and safe disposal of sanitary napkins should be given that helps to improve the overall health of the womenfolk.

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