EFFECTS OF EXERCISE ON WOMEN USING MENSTRUAL CUPS, TAMPONS AND MENSTRUAL PADS

For the partial fulfilment of the Bachelor Degree of Physiotherapy

UTSAV RAJ

DR. RITURAJ VERMA

Professor

Dept of Physiotherapy

Galgotias University

DEPT OF PHYSIOTHERAPY

SMAS

GALGOTIAS UNIVERSITY

GREATER NOIDA

U.P

2021-2022

DECLARIATION

I, UTSAV RAJ certify that the work embodied in this Project work is my own bonafide work carried out by me under the supervision of DR. RITURAJ VERMA for a period of **1 YEAR** from **2021** to **2022** at Galgotias University. The matter embodied in this thesis has not been submitted elsewhere for the award of any other degree/diploma. I declare that I have faithfully acknowledged, given credit to and referred to the research worker wherever the work has been cited in the text and the body of the thesis. I further certify that I have not will fully lifted up some other's work, para, text, data, results, etc. reported in the journals, books, magazines, reports, dissertations, theses, etc., or available at web-sites and have included them in this BPT Project / Desertion / thesis and cited as my own work.

Date:

UTSAV RAJ

Place: **Galgotias university**
Greater Noida
U.P, INDIA

UTSAV RAJ

Certificate from the Supervisor

This is to certify that the research project / thesis entitled "EFFECTS OF EXERCISE ON WOMEN USING MENSTRUAL CUPS, TAMPONS AND MENSTRUAL PADS" Submitted by **UTSAV RAJ** Reg. NO 18SMAS1010127 at Galgotias University for the Bachelor degree in **PHYSIOTHERAPY** is his/her original research work carried out by him/her under my guidance and supervision. This work is fully or partially has not been submitted for the award of any other degree or diploma. The assistance and help taken during the course of the study has been duly acknowledged and the source of literature amply recorded.

Supervisor signature:

DR. RITURAJ VERMA
Supervisor Designation:
Assistant Professor
Department of Physiotherapy
SMAS
Galgotias University
Greater Noida
U.P INDIA

COPYRIGHT TRANSFER CERTIFICATE

Title of the Dissertation / research / project / Thesis: **"EFFECTS OF EXERCISE ON WOMEN USING MENSTRUAL CUPS, TAMPONS AND MENSTRUAL PADS"**

Name of the student: UTSAV RAJ

Copyright Transfer

The undersigned hereby assigns to the Galgotias University all rights under copyright that may exist in and for the above Dissertation /thesis submitted for the award of the BPT. Degree.

Signature of student

UTASV RAJ

Date…….

ACKNOWLEDGMENT

I would want to express my gratitude to my supervisor**, Dr. Rituraj Verma Ma'am**, who assisted me with my assignment in several ways. I would want to use this opportunity to express my gratitude to everyone who participated in the process and shown patience during the duration of it. In addition, I would like to express my gratitude to my friends and family for their unwavering support and for assisting me in maintaining my concentration on my studies.

In addition, I would like to express my sincere gratitude to my lecturer, **Dr. Shahiduz Zafar** sir, who was a tremendous help to me during the research.

I would also want to extend my gratitude to my project colleagues, Shivank, Prena, and Chahina, for their assistance in bringing this project to a successful conclusion.

UTSAV RAJ

Content of the table

List of graph and table

List of Aberration used in this Desertion / project/ thesis report

- **PMS: -** Premenstrual Symptoms
- **ACOG: -** American college of obstetricians and gynecologist
- **DSM-IV: -** Diagnostic and Statistical Manual of Mental Disorders
- **PMDD: -**Premenstrual Dysphoric Disorders
- **WHO: -** World Health Organization
- **PVAS: -** Pain Visual Analogue scale
- **HRQOL: -** Health-related Quality of Life
- **FDA: -** Food and Drug Administration
- **WHODAS-** World Health Disability Assessment Schedule

ABSTRACT

Background and Purpose: There are different menstrual products available in the market that can be used by women while menstruating which can be used for a longer duration than usual sanitary pads like menstrual cups and tampons and hence proven to be a travel-friendly product. These different menstrual devices can be used by women performing exercises and can be checked if they are more comfortable with these different available products. These menstrual products like cups and tampons may put less burden on the pockets make it easy the purchase and get rid of the usual unhygienic clothes. In this study, we are going to introduce women to these different menstrual devices for their betterment in the difficult times of the month and will also examine the acceptability of different menstrual products and ease of administration while using them. This study is conducted to find effects of exercise in women using menstrual cups, tampons and menstrual pads.

Materials & Methods: RCT was done on women between 18-35 years of age. a total number of 156 subjects were divided into 3 groups: - 1 controlled group: - sanitary pads users(n=52) and 2 experimental groups: - tampon users(n=52) and menstrual cups users(n=52). all 3 groups will be asked to perform a set of exercises for the duration of 2 mensuration cycles 5 days a week (during mensuration also). pre-data and post data will be collected post data will be collected after completing 1 menstrual cycle using vas scale for pain and premenstrual syndrome questionnaire for physiological symptoms, psychological symptoms behavioral symptoms.

Results: The result of the study shows Tampons scores are (51.153±8.170), (43.076±6.534), (43.557±6.533) for Cycle 0 to Cycle 2. The score of Cups Groups is (48.884±8.741) (46.384±11.562), (47.000±11.367) for Cycle 0 to Cycle 2 and the pads score is (50.211±8.107), (51.153±8.170) (50.134±8.681). The P value of tampons Groups is (0.001) which shows that there are significant effects found in the Group. The P value of Cups Group is (0.460) which shows no effects in the groups. The P value of Pads groups are (0.786) which also shows no effects are found in this Group.

Conclusion: According to the findings of the study, taking part in physical activity had a significant bearing on the results for both cycles of the intervention, including the use of tampons. When it came to the PMS scores, the Cups and Pads groups did not show any noticeable influence at all.

INTRODUCTION

Menstruation is a natural physiological function that is essential for the survival of the human species. It is an average 28-day cycle that starts on the first day of menstruation, during which the uterus prepares for a potential pregnancy(1). Normal menstrual cycles consist of four phases: menstruation, follicle development, ovulation, and luteal phase. The menstrual phase starts on the first day of the period and concludes on the fifth day. During this phase of menstruation, the uterus expels its inner lining via the vaginal canal(2). The follicular phase normally begins on the sixth day after menstruation and lasts for fourteen days. During this period of menstruation, the inner lining of the uterus expands and thickens owing to an increase in oestrogen levels, and an increase in follicle-stimulating hormone levels aids in the maturation of immature follicles into mature ovum. During the ovulation phase, which occurs on the fourteenth day of the menstrual cycle, the growing amount of luteinizing hormone allows the ovary to release an egg(3). The final phase, the luteal phase, begins on the 15th day of the menstrual cycle and ends on the 28th day of the cycle. During this phase, the mature egg released by the ovary travels down the uterus through the fallopian tubes, and increased progesterone levels help to create an environment conducive to pregnancy. If pregnancy does not occur, the elevated levels of progesterone and oestrogen decline precipitously, and the uterine lining sheds in the form of period blood(4).

However, this essential phenomenon is still surrounded by several myths and misunderstandings. Women spend 65 days a year dealing with menstruation, which is over two months. Therefore, it has become essential to discuss menstruation openly. Women live in dread of leaking and staining, which may place psychological strain on their mental health and indirectly cause them to lose concentration on their daily duties(5). The usage of unhygienic menstruation products, such as clothing, sand, leaves, etc., by women in underdeveloped nations such as India is one of the most significant problems they face; these items may cause severe health problems. Few

remedies exist for the aforementioned menstruation-related issues. There are around 300 million menstruation women among India's population of 1.35 billion. Women use around 10,000 sanitary pads throughout their lives. According to these statistics, the annual use of sanitary napkins should be 58,500 million, but owing to insufficient awareness, it is only 2,659 million(6).

The shadow of taboos and myths follows women throughout their whole lives. Many of these prohibited actions include visiting the kitchen, gazing in the mirror, donning new clothing, handling pickles, and touching sacred texts. Families and friends exert pressure on the ladies to engage in these activities(7). A study performed in Punjabi schools demonstrates the absence of menstrual knowledge. According to the survey, 24.7 percent of the urban population and 40.0 percent of the rural population were barred from entering the kitchen. 7 percent of the urban population and 9.16 percent of the rural population engaged in other illegal activities(8).

Second observational research including 117 adolescent girls and 41 mothers in Ranchi examines their knowledge levels and perceptions of menstruation. 66.7 percent of females regard menstruation to be a natural physiological process, whereas 33.5 percent view it to be filthy and sinful. Research also indicates that menstruation women should avoid consuming acidic foods. In addition, it is thought that exercise and vigorous physical activity during menstruation exacerbate dysmenorrhea. Dysmenorrhea is a disorder characterised by painful menstrual periods caused by uterine contractions(9). Two forms of dysmenorrhea exist: Primary pain refers to recurring discomfort, whereas secondary pain results from a dysfunction of the reproductive system. Exercise promotes the release of serotonin, which may alleviate the symptoms of premenstrual syndrome and disorders such as dysmenorrhea(10).

Discomfort and discomfort are the two most common issues that menstruation women endure. The discomfort associated with menstruation products hinders daily activities. This menstruation gadget cannot be used for more than four to five hours, which makes it unsuitable for travel. Women who are physically active in their everyday lives, such as those who exercise, do yoga, or are athletes, may find a menstruation device unsuitable for use during these activities. There are several menstruation products available on the market that may be used for a longer period of time than traditional sanitary pads, such as menstrual cups and tampons, and have thus proved to be travel-friendly. These diverse menstruation gadgets may be utilised by exercising women,

who can determine whether they are more comfortable with one of these items over another. These menstruation items, such as menstrual cups and tampons, may place less strain on the wallet, making it easier to acquire and dispose of unsanitary clothing. In this research, we will expose women to these various menstruation gadgets for their benefit during the tough periods of the month, as well as analyses the acceptability and convenience of administration of various menstrual products.

Sanitary pads are externally applied menstruation items composed of absorbent materials such as rayon, cellulose, polymers, and cotton. It is often adhered to the underpants and may be worn for up to three to four hours. Sanitary pads are single-use and should be often replaced to prevent bacterial growth and the development of RTIs. Due to its non-recyclable nature, it generates a mountain of garbage every month, [illegible] fumes. As a result of the usage of plastic in production, it becomes [illegible] ingers on the planet for countless aeons(11).

Figure 1 Sanitary Pad

Tampons are menstruation items that are inserted into the vaginal canal for four to six hours. It is a cylindrical product produced from a rayon and cotton combination. According to their absorption capacity, many varieties of tampons are available on the market, including standard,

super, super plus, and ultra. Once injected into the vaginal canal, the material absorbs all menstrual blood and swells. It absorbs the vagina's natural lubricant and beneficial bacteria, which might result in aberrant pH levels and raise the risk of toxic shock syndrome (TSS)(12).

Figure 2 Tampon

Menstruation Cups are contemporary menstrual devices used similarly to tampons within the vaginal canal. Typically, it is comprised of medical silicone, latex, and thermoplastic isomer. It is a product in the form of a bell with a ring and a stem. The stem aids in the removal and administration of the cup(3). It may be worn for up to 12 hours, depending on the kind of flow, and can be reinserted once the blood has been collected. If cleanliness is maintained during its use, a single menstrual cup may be used for 10 years. It provides the feeling of odorless and leak-free times. The incidence of TSS is equivalent to the use of feminine hygiene products. The menstrual cup is flexible, allowing it to be folded and inserted easily into the vagina. Upon entering the vaginal canal, the cup spontaneously unfolds and establishes a tight seal in front of the cervix. C-fold and punch-down fold are examples of popular folds that may be utilised to facilitate administration. It is offered in a range of sizes from tiny to huge(13).

Figure 3 Menstrual Cup

Experiencing perimenstrual symptoms is a major health concern for young women. Women in the reproductive age experience menstruation about once a month, and many experience perimenstrual symptoms. Drug therapies such as painkillers (commonly used) and hormonal medications help to achieve symptomatic relief from perimenstrual symptoms. However, many women are concerned about tolerance and compliance of the drugs used to treat perimenstrual symptoms and lack awareness on how to cope with perimenstrual symptoms. If the association between exercise habits and the severity of symptoms is emphasized in young women, methods for coping with perimenstrual symptoms can be established, not relying only on pharmaceuticals(14).

REVIEW OF LITERATURE

NATIONAL ARTICLE

Riddhi Sahu et al 2022 - Prior to menstruation, many women experience a range of symptoms known as premenstrual tension syndrome (PMTS). A descriptive study examined the prevalence of premenstrual syndrome in young reproductive women. 2010 saw a revision to Rudolf H. Moos' Menstrual Distress Questionnaire. To understand the data, we used descriptive statistics. Female participants in the study totaled 500. Menstruation normally starts between the ages of 18 and 28. Female participants in this research reported mild to moderate or severe symptoms of PMS. Behavior changes, heightened awareness, and failure were the most common indicators of a mental illness. A wide range of symptoms were described by those who were impacted. The average number of pains reported by women during their periods was 47.91, with a standard deviation of 13.16, according to this research. It's possible that the symptoms of PMS have a significant influence on a woman's health in general. We can't advance in society without spending money. It is thus necessary to have a better understanding of PMS and its management. (14)

Tanu Shree Yadav et al 2022 - Haematological data were compared across multiple menstrual cycle stages to examine whether there were any distinct patterns of change in haematological traits. Thirty athletes took part in the study, the majority of them were involved in high-intensity, high-speed activities. It is important to note that blood samples were collected at each stage of this experiment that included both red and white cells. When a woman's menstrual cycle is out of whack, her hemological characteristics might change. During the follicular phase, RBC and haemoglobin concentrations rise substantially, but they remain steady during ovulation and the luteal phase. In other words, WBC levels increased during FP, remained stable throughout ovulation, and then decreased somewhat during the luteal phase of pregnancy. The rise and decrease of WBC and platelet counts followed a similar trend. As platelet count decreased throughout the luteal phase of pregnancy, it decreased. Blood counts drop in women who have menstrual haemorrhages. Blood factors surge in FP to compensate. Blood cell and platelet counts decline at this time because oestrogen levels are lower at this point in the cycle. A woman's menstrual cycle may affect her hematocrit levels, according to the study. (15)

Dr. C. Sravana Deepthi et al 2022 - Women in underdeveloped nations are particularly vulnerable to the dangers of early marriage. They are at a greater risk of having a miscarriage or a stillbirth in these countries. Premenstrual syndrome manifests itself in several women at various points throughout the menstrual cycle (PMS). This led researchers in southern India to investigate the prevalence of menstruation issues among young people in Warangal. Pregnant women aged 10 to 19 were interviewed by researchers in the study region between October 2014 and September 2015. Two hundred sixty-one female high school students were surveyed as part of the research project. Young girls are plagued by premenstrual and menstruation issues, according to the findings of this research. In health education programmes for youth, menstrual health issues, including how and where to get care, should be included. Doctors that specialise in women's health issues, such as dysmenorrhoea, should be on call at all times. (16)

Priya Maurya et al 2022 - Teenage females in the Indian states of Uttar Pradesh and Bihar suffered menstrual cycle anomalies as a result of their sadness, according to Journal of Pediatrics researchers. The first wave of data gathered for our study "Understanding the lives of adolescents and young adults" yielded these insights. The research included a total of 12,707 female teenagers, ranging in age from ten to nineteen. Bivariate chi-square testing was used to examine menstrual irregularity. Monthly irregularity, depression, and other variables were investigated using multivariable logistic regression models. Menstrual irregularity and depression were shown to be linked in studies of young girls. Women with irregular menstrual cycles need to have their mental health taken into account while being treated. (17)

Apoorva Sharma et al 2022 - An investigation was done to better understand how primary infertility affects women's mental health. Social, reproductive, and lifestyle issues affecting North Indian women were also studied. There were 250 women with primary infertility and 250 women of similar age in the Gynecology Outpatient Department. The WHO-5 subjective well-being measure was used in qualitative interviews. The study found that infertile women were more likely than fertile women to suffer from mental health problems. All of these factors are linked to women's psychological health. Women who have trouble conceiving are more likely to be stressed and depressed Mental health is often overlooked

when treating infertility in most clinics and hospitals. Exercise, family counselling, and knowledge regarding infertility are all necessary components of improving women's mental health. (18)

Upasana Pandit et al 2022 - If you are having any of these symptoms, it is probable that you have polycystic ovaries, amenorrhea, or an enlarged ovarian volume. POS Women with PCOS who performed 20 weeks of aerobic exercise at home saw improvements in their body composition, insulin resistance, and hs-CRP levels. Polycystic ovaries were the focus of a 12-month, prospective research on women between the ages of 20 and 40. The other group was used as a comparison group while the experiment was being conducted on only one group. An hour and a half before the first session and again 48 hours after the last, blood samples were taken from each participant. Fasting glucose, insulin, and hs-CRP may all be measured with these samples, according to the research. There was a link when the likelihood of discovering one was less than 0.05, according to SPSS. Exercise programmes for women with polycystic ovary syndrome have been shown to reduce BMI, hs-CRP, and HOMA-IR values over a 20-week period. PCOS sufferers may benefit from aerobic exercise, but more research is needed to confirm this. (19)

Nandini Sharma et al 2022 - As a result of their dangerous sexual practises, substance use, and poor nutrition, teenagers are at risk for a wide variety of health issues. To investigate out how the second COVID-19 pandemic affected teens' conceptions of great health, health-seeking behaviour and healthcare utilisation. The research included 12 boys and 11 girls aged 15 to 19. Teens believed that a healthy weight and good body image were vital components of a balanced diet and frequent exercise. They knew the risks of smoking and drinking, but not the benefits of quitting. A recent poll found that teens struggled to find trustworthy, suitable, and relevant materials on sexual and reproductive health. As a consequence, raising awareness and expanding the program's reach is critical. (20)

K. Parvathy 2021 - A case-control study was conducted to see whether there were any significant risk factors among women who had breast cancer. More than 500 breast cancer patients and 540 healthy women were found to have an elevated risk of getting the disease. The chance of getting breast cancer may be reduced by as much as 50 percent by keeping a healthy BMI, increasing physical activity, and practising yoga to reduce mental stress. (21)

Riya C Regie et al 2020 - As a consequence of globalisation, menstrual hygiene management has become an issue. Menstruation hygiene is becoming more important to women in India, and as a result, more individuals are turning to natural and ecologically friendly options for their menstrual hygiene. For the sake of the menstrual cup business, researchers wish to understand more about the elements that influence women's choice to purchase menstrual cups in the future. An exploratory element analysis approach was utilised to discover the most important element from the data gathered via a questionnaire. To ensure that everyone in the study's sample of 455 participants had an equal chance of being included, random sampling was used. This century has seen major cultural and religious shifts around menstruation. Women aren't buying menstruation cups because of a lack of product knowledge and taboos. Menstruation cups, which are environmentally sustainable and health-conscious, are emphasised in the study as both inexpensive and attractive to women. (22)

Shwetha Ballal K. et al 2020 - The menstrual cup has emerged as an alternative to the sanitary napkin in both high and low-income nations, particularly among schoolgirls. Medical-grade silicone prostheses with a ten-year lifespan are now available. To conduct this survey, we sought to find out how much women understood about menstruation cups. An interviewer sent a study proforma to individuals judged suitable in order to gather data. Women of childbearing age are the focus of this one-month cross-sectional research. Women in developed nations who are unable to control or reduce the flow of their menstrual blood face a number of challenges. Girls' education, empowerment, and social development are all impacted by their menstrual hygiene practices. (23)

Muthusamy Sivakami et al 2019 - Menstruation and a hostile school atmosphere may make it difficult for females to attend school and engage in scholastic activities like reading and writing. Solutions to the monthly agony of Indian schoolgirls have been uncovered by nongovernmental organizations and the government. School administrators in three Indian states carried out research on menstruation management issues and prospects. In 2015, 43 government schools from three Indian states were randomly chosen to participate in a referendum about menstruation. It was decided to compare the best-case scenario of menstrual hygiene teaching in 10 schools funded by NGOs or UNICEF in similar states. Conventional and model school girls' menstrual experiences were compared, focusing on aspects

such as menarche information, supplies, and facilitation. Analysis of the reasons why females who are menstruating miss school days was conducted using multivariate analysis Adolescent girls in India will have a better educational experience when they have access to proper sanitary facilities, pain medication, and information about menstrual hygiene. (8)

Manorama Eti et al 2019 - Many Indian women are unable to make the changeover to menstruation cups because of the widespread use of sanitary pads and a general lack of understanding about them. Environmentally friendly and less wasteful due to their ability to be reused. Disposing of menstrual waste must be extensively publicized and easily accessible to ensure the safety of women. Everyone will have access to green energy once that issue is resolved. Approximately 400 female medical students were surveyed. The menstrual cup was one of the key aims of the study. All of the participants in the study were forced to use sanitary pads since they were so widely available and well-advertised. We weren't aware of it. We've arrived to the conclusion that menstruation cups should be advertised in India. Since young women are more open to the idea of ecologically friendly products, menstrual cups should be pushed to them. A "pad free country" can only be achieved if government education programmes in rural areas and outreach efforts at all socioeconomic levels are implemented promptly. (24)

Rajanbir Kaur et al 2018 - Culture and religion impede menstrual hygiene. As a result, rural ladies face significant challenges in education and work. Insufficient understanding hinders personal and menstrual hygiene. Most women and girls are unaware that poor menstrual hygiene may lead to STIs. Women in remote areas face several obstacles. Cotton pads are washed and reused. A lack of water and sanitation has mostly excluded women and girls. Not while they're out, but when they're at home. Their actions hurt the environment and the public. Incinerating trash may be a new technique to reduce waste. Use water hyacinth and water hyacinth fiber sterilizer’s often. (25)

Belen Torondel et al 2018 - Because of cultural and religious restrictions, proper menstrual hygiene is a huge problem. Rural girls' education and employment are impacted by a wide range of factors. It's difficult to maintain proper menstruation and personal hygiene if you don't have the necessary information. In many cases, women and girls are unaware that poor menstrual hygiene may contribute

to the development of sexually transmitted diseases (STIs). Rural women do not use menstrual hygiene products for a number of reasons. Cotton pads can be cleaned and reused, saving you money and the environment. As a consequence, the water and sanitation industry have a disproportionately low percentage of female employees. When flushing their sanitary products in public, women don't give it a second thought. They're harming not just the environment, but also the general public with their conduct. An innovative approach to reducing trash in the future may be to burn garbage. Sterilizers made from water hyacinth fiber and/or water hyacinth will help minimize waste in the long term. (26)

Supriya Garikipati et al 2018 - Menstrual hygiene education and the usage of reusable pads are on the decline in developing countries due to government policies, corporate interests, and cultural taboos. Period poverty is still a common occurrence, and disposable menstrual pads are now more popular than ever. In a community-based study involving 277 women from India, researchers found that women who were more informed and had more control over their menstrual cycles had better results. When consumers were made aware of their alternatives and given easy access to them, demand for reusables and better waste management practices surged. In our culture, however, menstruation and how to deal with it are firmly ingrained concepts. Despite present knowledge inequities, we show that making educated choices may help minimize long-term periods of poverty. (27)

C. R. Kakani et al 2017 - Young people, who make up roughly a fifth of the world's population, are particularly vulnerable to disease because of the prevalence of risky sexual behaviour and drug use. Because of the second COVID-19 outbreak, we decided to look at how adolescents' views on health, health care use and health-seeking behavior had evolved over the last decade. Participation in this study was open to anybody between the ages of 15 and 19. Good eating and regular exercise are key to maintaining a healthy weight and body image, according to youngsters. Smoking and drinking are known to cause health problems, but they didn't think about how much better they might be if they stopped. According to a recent survey, young people have a hard time accessing credible information about sexual and reproductive health. As a result, promoting the programme and recruiting new participants is essential. (28)

C. R. Kakani et al 2017 - If you've ever used a menstrual cup and found it unsuccessful because of its weight and the necessity for a variety of sizes, you're not alone: A better knowledge of menstruation cups' flexibility and efficacy, as well as improved health and sanitation, have made menstruation cups a viable alternative to traditional methods. Menstrual cups will be tested on women who have never used one before. The medical school and hospital at Dharpur and Patan, both in Gujarat, India, where the Gujarat Medical Education and Study Society performed the research, were both in Gujarat (GMERS). Only menstruating females aged 20-50 were eligible for this study's focus group. Three menstrual cups were used over the course of three months by the participants in this study. As a consequence, we were able to get started straight immediately since we had everything we needed. On three separate occasions, we conducted a typical survey to get comments from the public. We may deduce from the facts that this reusable vaginal implant is safe and hence acceptable to the vast majority of females. (29)

INTERNATIONAL ARTICLES

Kumiko Kido et al 2022 - Research on Japanese women's menstrual blood is lacking, despite the fact that the average age at which they first begin bleeding is lowering. Only a small number of studies have studied whether menstrual-associated symptoms are related to garment temperature and other variables. The study's main objectives were to determine the amount of sanitary napkins women use, as well as to identify risk factors for menstrual discomfort. A group of eight college students above the age of 20 was used in the study's experimentation. During the months of June and September of 2020, this research was conducted. Women's menstrual cycles, lengths, and amounts of monthly blood loss were all required in order to complete the Menstrual Distress Questionnaire (MDQ). Higher J-MDQ scores indicate more severe menstrual-related symptoms one week before, one week during, and one week after menstruation. The data was analyzed using the Friedman test and multiple linear regression. Vulvar hygiene may be improved by using the correct sanitary napkins. This time of the month, my pain levels were at their peak. (1)

Yaren Şaşmaz et al 2022 - Primary dysmenorrhea patients were given yoga-based fitness training to see whether it improved their quality of life and menstrual attitudes. A two-times-weekly exercise programme for the intervention group began after the first four weeks, while the control group continued to receive instructional training. Assessing our test subjects' development was accomplished via the use of a variety of instruments, such as the Visual Analog Scale, Menstruation Attitude Scale,

Body Awareness Questionnaire, Short Form 36 Questionnaire, and Satisfaction Questionnaire. The intervention group's VAS score dropped from 6.76 to 3.76 as a consequence of the research. Short-Form-36, Body Awareness Questionnaire, and Menstruation Attitude Scale scores were all statistically significant. Social functioning, pain, and overall health were the only aspects of quality of life that saw an improvement on the questionnaire. Yoga-based workouts were found to reduce pain, improve menstrual attitudes, and increase awareness of one's own body in Parkinson's disease patients. (9)

Laura Barba-Moreno et al 2022 - Exercise, the menstrual cycle, and oral contraceptives all impact the body's physiology. Throughout the menstrual cycle, oral contraceptive hormones may change the levels of female steroid hormones. The cardiovascular and pulmonary responses of women may have been influenced by oscillations in steady-state activity. During the research, female endurance runners who were menstruating or using oral contraceptives ran for 40 minutes at 75 percent of their MAFS. Respiratory and cardiovascular systems of the patient needed to be carefully scrutinised. We used a mixed-linear model to analyse the data. The follicle required more oxygen in the latter stages of the follicular cycle than it did in the earlier stages. The luteal phase saw a rise in tidal volume, heart rate, and oxygen and carbon dioxide ventilatory equivalents. Oral contraceptive users' ventilation, breathing frequency, O2 ventilatory equivalent, and CO2 ventilatory equivalent all rose at the start of the menstrual cycle. Aside from that, nothing else changed. Eumenorrheic and oral contraceptive women have poorer cardiorespiratory efficiency during the luteal and hormonal phases. Because of these oscillations and the lack of other physiological data, submaximal exercise had no influence on the menstrual cycle. (30)

Hannah Manley et al 2021 - Unlike tampons, menstruation cups are not categorized in any way and may be used in a number of ways. Since these variables influence product leakage and comfort, and are connected to sickness and damage, women should be as honest as possible when selecting a menstrual cup. The initial stage in this technique is to compare the physical and mechanical properties of menstrual cups. Menstruation cups will be tested in a laboratory environment using the Instron Universal Testing System starting in October 2020. It was determined that all of the designs, including their shape, structure and usefulness, had been thoroughly examined. When it comes to menstruation cups, women aren't well-informed. Customers are unable to choose which menstruation cup is ideal for

them because of the absence of a relationship between the cup's measurements and its substance. Menstruation cup makers must be open and honest with their customers at all times.' Women should be able to make better decisions about menstrual cups now that these and other regulations are in place, it is hoped. To begin, this research proposes a range of stiffness categories ranging from "extremely soft" to "very rigid." (31)

Fumio Yamazaki et al 2021 - In two different investigations on cold-sensitive women, cyclists were tested for their ability to swiftly perceive temperature differences. Participants cycled for 15 minutes at a mild to moderate exertion, then rested for 15 minutes in a crossover design. Participants had their skin temperature, thermal sensation, and hand comfort tested before, immediately after, and 30 minutes after exercise to determine their sensitivity to cold sensory function. In 15°C water, the hand cooled down in one minute. In addition to the exercise testing, additional control tests were carried out. According to studies, those who experienced cold hands stopped experiencing symptoms when their core body temperature rose considerably while exercising. The sensitivity to thermal comfort was enhanced, but not the impression of temperature. In the control situation, these sensitivity levels remained the same. Thirty minutes after exercising, the ice in the foot had melted, but a warmth sensation had spread throughout the body. Excessive core and skin temperatures have been proven to alter heat sensation and pain sensitivity during physical exertion. (32)

Christopher T.V. Swain et al 2021 - Exercise may increase the risk of breast cancer by increasing the levels of steroid hormones in the body. Exercise has been shown to have an effect on a person's sex steroid levels. Sport's Illustrated and EMBASE Premenopausal women were studied in Discus systematic searches for physical activity and a variety of estrogens, progestins, as well as androgens and corticoids. To get a sense of the entire scope of the effects, meta-analyses were used. The GRADE technique was used to evaluate both the quality of the evidence and the possibility of bias. This review includes more than 80 trials that were not random and 28 research that were. Human chorionic gonadotropin (hCG) production rises as a consequence of exercise. Based on the facts, the amount of the influence might be little or large. Evidence suggests that sexual steroids are reduced by physical exercise in the initial step of a sex hormone-breast cancer axis. By reducing circulating sex steroid hormone concentrations, the risk of breast cancer may be reduced. (33)

Hansol Choi et al 2021 - The role of menstrual hygiene products on women's health has yet to be fully investigated. Researchers in Korea evaluated the menstrual hygiene habits of women aged 18 to 45. Population-wide data was gathered as part of the Korean Nurses' Health Study (KNHS). A survey on menstrual hygiene products was included in Module 7 for a total of 8,658 nurses, with a participation total of 20,613. For the mobile survey, participants were asked to fill out a self-reported questionnaire. According to their percentage or mean usage of menstrual hygiene products, the participants' characteristics were analyzed. Reliability of period hygiene products is critical to many women's lives. More research on the potential health effects of menstrual hygiene products is needed. (34)

Maíta Poli de Araujo et al 2020 - Consult with your doctor about whether or not it is possible to participate in sports while using a menstrual cup. According to the data, the 49 women's handball players had an average age of 22 years and 2 months when they competed. As part of this research, the use of Soft cup disposable menstrual cups will be observed throughout each of the three menstrual cycles that will be observed. Also cited as a side effect of sports participation were pain during sexual interactions, blood leakage, and/or loss of the menstrual cup. While female athletes were aware of the risk of leakage and loss during competition, the menstrual cup was nonetheless frequently utilised by many of them. (35)

Igwe C.N. et al 2020 - Women's self-esteem is strongly influenced by their menstrual hygiene. In this study, researchers looked at the menstrual hygiene practices of women in Imo State, Nigeria (located in the country's south-southeast). Researchers from a variety of fields came together to examine Imo State's postsecondary educational institutions. Randomly chosen women aged 16 to 28 from six different colleges and universities around the country were tasked with completing questionnaires. According to a recent survey, reusable cloth/towels are the most often used by University of California students, followed by toilet paper and tissue. Female students at Polytechnics and Monotechnic often use disposable sanitary pads. In comparison, only 7.14 percent of women used reusable cloth/towels for their period; tampons were used by 4 percent of women; disposable sanitary pads were used by 78 percent of women; and menstrual cups were used by 0 percent of the women. A total of 5.71 percent of women reported using toilet paper. There were 14 students who utilised towels; 19 students used

tampons; 112 students used sanitary napkins; and 8 students used menstruation cups. Imo State postsecondary students' menstrual hygiene management practices are similar to those of their female counterparts. All female students at postsecondary institutions are required to receive education on good menstrual hygiene practices. (36)

Masih A Babagoli et al 2020 - The presence of bathrooms and menstrual supplies may help young girls in less developed places. The Malawi Schooling and Adolescent Survey's first wave recorded women's period-related school absences. For the MSAS school-based longitudinal research, 14 to 16-year-olds from Machinga and Balaka primary schools participated in 2007. Despite the fact that menstruation only accounts for a small fraction of all female absences, the majority of female student's report missing one or more days of school during their most recent cycle. We found no evidence that the educational environment had any impact on menstrual absenteeism. Menstrual cycles may be less disrupted if women study in the privacy of their own homes. (13)

SARAH NG et al 2020 - This article focuses on two recent advancements in human-computer interaction (HCI) research. When it comes to women's health and well-being, the issue is no longer confined to the realm of political debate. Increasing numbers of people are turning to HCI as a tool of encouraging political involvement and democracy. As a result of the Formoons Cup, a groundbreaking menstrual cup design from Taiwan, the legal status of menstrual cups has shifted significantly. This movement questioned the conventional emphasis on hymen care as a sign of "clean" and morally upright women. Platform technologies like social networking and crowdfunding had a role in the design and legality processes, which are crucial for HCI academics. Michel Foucault's concept of "subjugated knowledge" helps us comprehend how design might assist promote emancipatory politics in HCI's focus on women's health. We argue in our case study that women's right to self-care is more nuanced and upsetting than knowledge that is subordinated. According to our theory, providing previously unknown knowledge in a tangible manner may help make it more understandable and politically useful to society. (37)

Sofia Eklöf 2019 - Students in impoverished countries typically blame falling enrollment on issues like menstruation and inadequate hygienic measures. Another important factor is the widening gender disparity in college enrollments. Researchers will perform this study to find out how many female

students are enrolled in school. Menstrual cups were randomly assigned to women in Uganda, according to a study. Consequently, we're happy with the outcome. Girls who require menstrual cups because their periods prevent them from attending class may get them from the school office. A recent study shows that menstruation has less of an impact on women's academic performance than previously thought. Menstruating women miss an average of 0.009 days of school every year, out of a potential 34 days. If you're going to miss school on your period, you may as well use a menstrual cup (0.028 percent). Women's age, education, and money may all be controlled by me. The research used the difference-in-difference estimator. Both quantitative and qualitative data was collected from 58 persons who participated in the research. (3)

Anna Maria van Eijk et al 2019 - Women's menstrual products must satisfy three requirements: safety, effectiveness, and affordability. Menstrual cups are an underutilized single-use item for those who live in locations where clean water sources are scarce. Menstrual cup leakage and acceptance have been extensively researched as a consequence of this work all over the globe. Menstrual cup leaks and adverse event reports reported between the database's launch and May 14, 2019, have been subjected to a systematic review and meta-analysis by academics. Additionally, menstrual cups were included in a database maintained by the Food and Drug Administration (FDA). We were interested in learning whether menstrual cups leaked, whether they were acceptable, and whether they were safe. Using a menstrual cup result in a large quantity of blood loss, according to scientific studies. Pregnancy, gastrointestinal, and urinary system dangers were among the most serious concerns. Depending on the scenario, forest plots were utilised to integrate or summarize data. Additionally, the Cups' preliminary costs and environmental advantages were calculated. (38)

Rebecca Seale et al 2019 - The use of menstrual cups and intrauterine devices at the same time is common among women of reproductive age; however, it is not known if doing so at the same time has an influence on the success of the contraceptive approach being employed. Using a menstrual cup in combination with an IUD has resulted in the expulsion of the IUD on at least seven different times, according to research. Further study is required in order to understand how expulsions occur, how they might be expected, and how to prevent them in the future. (39)

Anna Maria van Eijk et al 2018 - Menstrual cups, especially those used by low-income women, may help them maintain better menstrual hygiene. During our pilot trial in Kenya, young schoolgirls started using cups on a daily basis. Pilot research in Nyanza Province, Western Kenya, included distributing menstrual cups to 192 14- to 16-year-old females from 10 schools. The girls were taught about menstrual hygiene, puberty, and the correct use of a menstrual cup. There was a noticeable shift in women's menstrual cups' colours over time, according to the nurses who examined them. Peer-to-peer training and patience may help rural African women learn how to use menstrual cups as the colour becomes more widely accepted. (40)

Gabriel Y. K. Ganyaglo et al 2018 - To find out whether the menstrual cup may help women with vesicovaginal fistulas manage their short-term urine leakage. By doing two-hour pad tests, women in Ghana who had had VVF surgery were compared to those who hadn't. Testing for safety and effectiveness included gynecological and questionnaire procedures. Percent leakage reduction was measured using t-tests, which returned millilitre values (ml). In one argument, observer bias and social desirability bias led to an underestimation of the cup's impact and women's tolerance for it. The efficacy of the menstrual cup in treating VVF-related urine leakage has to be evaluated in a more thorough investigation. (41)

Louis Nonfoux et al 2018 - When Staphylococcus aureus was exposed to toxic shock syndrome toxin 1, the researchers looked at the influence of 15 frequently available intravaginal protection products on the bacteria's growth and generation of toxic shock syndrome toxin 1. The microorganisms S. aureus and TSST-1 were mostly dodged by most tampons. Brand and content of tampons varied. In destructured tampons, the growth of S. aureus was much greater than it was in unmodified tampons, according to this study. Because of the increased air supply, S. aureus growth and toxicant formation were shown to be larger in menstrual cups than tampons in our research. (42)

Jane Juma et al 2017 - It's a good idea to see how menstruation cups stack up against sanitary pads and how Kenyan schoolgirls use them. Design Observational studies and experimental research were also used. Thirty rural western Kenyan elementary schools are part of a health and demographic monitoring system. classroom study of the menstrual cycle in female students aged 14 to 16 Toxic shock syndrome and other serious health implications may result if used cups contaminated with Staphylococcus aureus

or E. coli are collected. Even though our feasibility sample found no indication that menstruation cups are harmful for rural Kenyan schoolgirls, a larger research and post-marketing surveillance should continue to look at the safety of these products. (43)

Venkatraman Chandra-Mouli et al 2017 - If you are a woman, you know that menstruation is an essential part of your life. Menstruation has religious and cultural ramifications that may influence the views and expectations of adolescent girls and the adults in their communities. A comprehensive search revealed studies on women's cleanliness and menstruation in poor and middle-income countries. Between 2000 and 2015, 81 peer-reviewed studies on the lifestyles of adolescent girls from 20 countries were published. In low- and middle-income nations, menstruation is a significant barrier to girls' education and personal growth (LMICs). Teenage girls, in particular, should have access to running water and private latrines in their schools and neighbourhoods, as a matter of top importance for governments. (44)

Marni Sommer et al 2016 - Because of a lack of understanding, facilities, and supplies, schoolgirls in low- and middle-income countries cannot manage their menstruation. Menstrual hygiene management may be a contributor to inequality since it exposes female participants to transactional sex, which may have long-term reproductive and general health consequences. Accordingly, despite growing evidence that educational circumstances for girls may be improved, the need to identify MHM objectives at the national level exists. One of the most recent efforts to prioritise public health issues and determine how much money should be spent on them by 2024 was held in October 2014 by a group of academics, non-profits, UN officials, and donors. (45)

Julie Hennegan et al 2016 - Women and girls in low-resource settings suffer damage as a result of unsanitary menstrual hygiene management. In low and middle-income countries, women may benefit from menstruation management programmes in terms of their educational achievement, future career opportunities, and general well-being. There were extensive searches of peer-reviewed and grey-literature papers focusing on menstruation management education and availability of resources. We conducted both randomised and non-randomized control experiments throughout our investigation.

The study's findings, conclusions, and bias risk were all documented using a prototype form. There was a level of bias that was determined by two separate study groups. (46)

Penelope A Phillips-Howard et al 2016 - Menstrual hygiene may have an impact on male students' academic and physical well-being. Schools in rural western Kenya are being monitored by a Health and Demographic Surveillance System. If you're a healthy 14- to 16-year-old woman who lives in the study region, you're eligible to take part in the research study. Women who use menstrual cups or monthly sanitary pads might serve as a comparison group. Before the seminar began, everyone in attendance received soap and information on the puberty process. As a thank you for their assistance, school districts were given presents. Contrary to popular belief, the use of menstrual cups and pads has not been linked to lower rates of sexually transmitted infections (STIs) or the bacterial disease vaginosis (BV). It just took a couple months to accomplish this job. A lot of testing is required for menstruation cups. (47)

Michael A Mitchell MD et al 2015 - Menstrual cups have been shown to be more effective than tampons in clinical studies. Using flexible cups, which are considered safe and inexpensive, may help some women better manage their menstrual periods. A 37-year-old woman who had never used a cup before suffered from toxic shock. This work led to the discovery of the probable cause of TSS. (48)

Mags E. Beksinska et al 2015 - Many teenage women and girls in low-income regions are forced to reduce their activities during their period due to a lack of affordable menstruation supplies. To collect menstrual blood, a menstrual cup, which is nonabsorbent and reusable, is utilised. We tested the MPower MC against pads and tampons in a low-resource environment and found it to be acceptable and effective. We performed a two-period crossover experiment in Durban, South Africa, from January to November of 2013. People between the ages of 18 and 45 who weren't planning on becoming pregnant were sought out for our study. There was no history of sexually transmitted infections among the women, as well as normal menstrual periods. A computer-generated randomization technique ensured that only the researchers were aware of which product usage plan each subject was allocated to. During the course of three menstrual cycles, participants were questioned at the beginning and end of each month using each approach. An ordinal logistic regression model with individual random effects

was used to compare the outcomes of the acceptability and satisfaction questions. It's clear that MC can be used in low-resource situations since a group of people who had never used tampons before embraced MC. (49)

Monica J. Grant et al 2013 - The presence of toilets and menstrual supplies may be beneficial to young girls in less developed places. Researchers evaluated data from the first wave of the Malawi Schooling and Adolescent Survey to determine how many children drop out of school due to menstruation. Between the ages of 14 and 16, students from Machinga and Balaka elementary schools participated in the MSAS school-based longitudinal research in 2007. Although menstruation only accounts for a small fraction of overall female absences, the majority of female student's report missing one or more days of school during their most recent menstrual cycle. We found no evidence of school-level variation in menstruation-related absences; hence the school environment had no impact on absenteeism. While studying at home, a woman's last menstrual cycle may be less disrupted. (2)

T Crofts et al 2012 - When it comes to water, sanitation, and hygiene, menstrual hygiene is a problem that goes mostly unacknowledged. There are millions of girls and women in impoverished countries throughout the world who are unable to openly discuss their menstrual cycle. Schoolgirls in Uganda are unable to maintain good hygiene due to a shortage of affordable menstruation pads. Menstrual pads, whether disposable or reusable, may have a positive impact on the health and well-being of female college students. Restricted personal hygiene items include soap in the bathroom and drying rooms, locked waste disposal areas, and anal cleaning products. (50)

E. Roma et al 2012 - All South African menstruating women will get free sanitary towels, in recognition of the detrimental effects that menstruation has on schoolgirl attendance and academic performance. When it comes to menstruation management and the use of sanitary technologies in South Africa, little research has been done. In order to close this information gap, EThekwini municipality's examination into menstruation management practices analyses past studies. As a result of its affordability and environmental benefits, low-income women have recently started utilizing reusable pads and menstrual cups. silicone vaginal cups may be cleaned and reused as menstrual cups. In the kitchen, glasses are periodically emptied and washed with soap and water. You may make hypoallergenic cups while you

rest between rounds. EThekwini, South Africa, has explored menstruation cups and other period-related goods. Menstruating women and adolescent girls have access to resellable menstrual products. The research included 400 menstruation women and girls from the city's urban and rural districts. During the house survey, menstruation management practices and existing sanitation systems will be analyzed. " We cannot overstate the importance of focusing our marketing efforts on female customers. It is hoped that the findings of this research will serve as a guide for future investigations. As a final recommendation, it is advised that women's menstruation management practices be made more public and that sanitary facilities and maintenance programmes be enhanced. (51)

Ellen R. Wiebe et al 2011 - When it comes to menstruation, many IUD users choose intravaginal menstrual cups or tampons. However, no studies have examined the effect of this approach on IUD expulsions. Women who had IUDs implanted and claimed menstruation protection were more likely to use tampons and pads than period cups. A 2.5 percent expulsion rate was seen among the 743 women who had enough follow-up data following implantation. Women who used cups, tampons, or pads had the same results. There was no increased risk of early IUD ejection among women who used menstrual cups and tampons throughout this study. (12)

Barbara B. North et al 2011 - Because of its weight and the wide range of sizes that are required, menstrual cups have a long history, yet many women still find it difficult to use them. Because it collapses into a tampon-like form, the Soft cup may be worn during intercourse. About this page, you'll find information on Soft cup’s preclinical and clinical testing. The FDA mandated that preclinical research be conducted using established US Pharmacopeia methods to determine whether the drug was hazardous. At seven U.S. clinical research centers, a total of 406 women were recruited to participate in clinical trials. A thorough questionnaire was used to ensure the collection of menstrual blood was both safe and efficient. In order to guarantee the individuals' safety, wet mounts, gramme staining, and cultures of the vaginal microbiota were utilised. More than 100 million Soft cups were tracked by the FDA's MedWatch system and the manufacturer after they went on sale. There are no substantial dangers to health associated with a single-size vaginal device, according to these studies, and the vast majority of women can use it without the aid of a doctor or other health care provider. (52)

Ann Modro Borowski 2011 - There are environmental and health consequences to using throwaway tampons and pads in this study. They are made of synthetic materials, like diapers, which do not degrade rapidly. A woman's menstrual cycle, on average, lasts for 40 years. Discarded feminine hygiene items wash up on coastal coastlines throughout the globe around this time of year. Dioxin, a byproduct of bleaching and manufacturing, has been connected to a range of health and environmental issues. In light of these environmental and health issues, researchers conducted this study to see whether women are aware of more environmentally friendly and healthier alternatives to disposable pads and tampons. Women who use non-conventional menstrual products, such as reusable pads and feminine cups, were interviewed as part of the study, as did menstrual product developers and producers. Women seem to be more concerned about saving money and the environment than men. According to interviews and other research, the topic of "greenness" is divisive. It's not uncommon for women who care about the environment to pick organic cotton tampons or pads over conventional ones. Many women avoid insertable cups and pads because they must be cleansed or disinfected every time they are used. Further research is needed to determine if menstruation products are really "green" in terms of the environment and human health, as the results of this study show. Environmentally friendly products may not necessarily be good for women's bodies, according to one study. (53)

Shannon A McMahon et al 2011 - Young women's first menstrual period may have a significant influence on their families and on their own lives. Concerns and obstacles that may have prevented this disaster were ignored even in nations with little resources. School administrators must better understand how female students are seen and handled throughout their menstrual cycle in order to increase the number of female students attending school. This research examined the attitudes and behaviors of rural Kenyan girls around menstruation. Researchers searched six remote communities in the Nyanza region of western Kenya in search of information. During the study's interviews with 48 primary schoolgirls, researchers used an in-depth focus group and field notes to collect data. Manual classification of tales followed the systematic study of recordings and debriefing notes. In order to empower adolescent girls as they enter womanhood, more research is needed on culturally appropriate and effective menstruation management practices. In these and other situations, women's menstrual education must be systematic. This problem should be addressed in the future by providing sanitary items or instructing individuals on how to produce their own. (54)

Emily Oster et al 2011 - Menstruation and the absence of sanitary supplies are being recognised as obstacles to girls' education by policymakers. Randomized distribution of sanitary products to Nepalese females will be used to test these claims. We've uncovered two new results. As a general rule, menstruation has little effect on students' attendance at school. During a 180-day school year, females on average miss 0.4 days of school. This disparity seems to be unaffected by advances in sanitation technologies. School absences were neither more or less common among girls who received sanitary products at random throughout the course of their menstrual cycle than among those who did not. Despite this, it cannot be said that better menstrual products reduce the attendance gap. (55)

Barbara B. North et al 2011 - Menstruation cups' usage has been restricted for decades due to its mass and the necessity for several cup sizes to be accessible. It's possible to use disposable menstruation cups while having sex, such as the soft cup, which comes in one size. Preclinical and clinical testing results for the soft cup are summarized on this page. Preclinical research was conducted in compliance with US Food and Drug Administration requirements using US Pharmacopoeia protocols to determine any possible toxicity. Seven U.S. locations, including the National Institutes of Health, examined a total of 406 women for the condition (NIH). Using a comprehensive questionnaire, it was established that menstruation collection was safe and effective. Precautions included vaginal microbiota cultures and pH testing as well as Pap smear examinations and wet mounts. More than 100 million Soft cups were followed by the FDA and the company's MedWatch system after they were put on the market. There is no need for a fit or other medical services with one-size vaginal implants, according to these studies. (56)

Caroline F. Allen et al 2010 - Intravaginal and menstrual behaviors may affect the environment and adherence to microbicides and placebo items in HIV prevention trials. Microbicide Development Program's Phase 3 trial of a vaginal microbicide used a range of quantitative and qualitative methodologies to study these behaviors and their connections to other behaviors and social norms. As far as "uchafu," or vaginal fluids, were concerned, intravaginal cleaning with fingers and either water or soap and water was supposed to remove them. This study found that 45 percent of sex acts were followed within two hours by a vaginal wash. The use of artificial means of enhancing one's sexual performance was uncommon at the time. The efficiency of microbicides may be improved by

investigating the effects of menstrual cycles and related behaviors, as well as demographic variables. (57)

AIMS AND OBJECTIVES OF THE STUDY

- To find out effects of exercise on women using menstrual cups, tampons and menstrual pads

HYPOTHESIS

NULL HYPOTHESIS:

THERE IS NO EFFECTS OF EXERCISE IN WOMEN USING MENSTRUAL CUPS, TAMPONS AND MENSTRUAL PADS.

RESEARCH HYPOTHESIS:

THERE IS A SIGNIFICANT EFFECTS OF EXERCISE IN WOMEN USING MENSTRUAL CUPS, TAMPONS AND MENSTRUAL PADS

METHODOLOGY

STUDY DESIGN –RANDOMIZED TRIAL

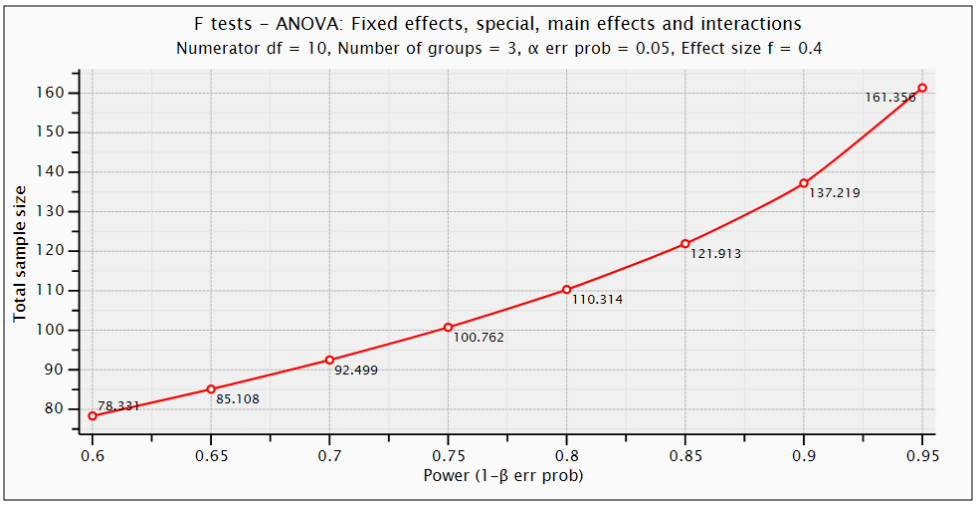
INCLUSION CRITERIA

- AGE 18-35
- REGULAR MENSURATION CYCLE
- DO NOT PERFORM ANY PHYSICAL WORKOUT DAILY(GYM/YOGA)
- DYSMENORRHEA

EXCLUSION CRITERIA

- PCOD
- AMENORRHEA
- HYPOTHYROIDISM
- HISTORY OF UTERINE POLYPS OR FIBROIDS
- POLYMENORRHAGIA
- USING BIRTH CONTROL PILLS

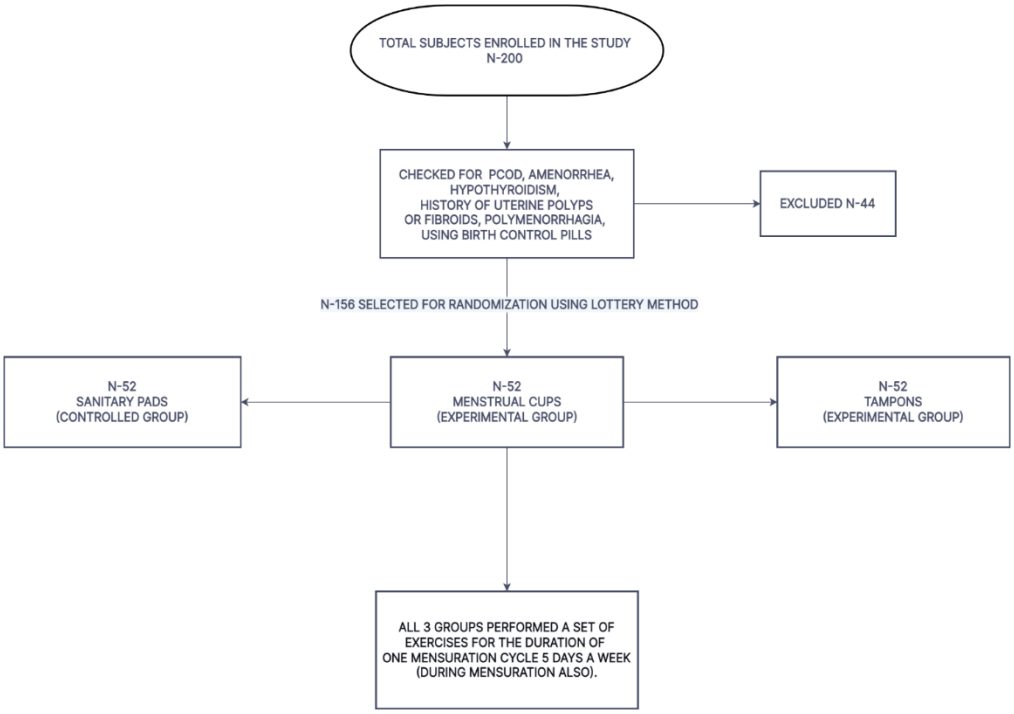
TOTAL SAMPLE WILL BE MORE THAN 156 TESTED BY G POWE (STATISTICAL POWER SOFTWARE)



F tests - ANOVA: Fixed effects, special, main effects and interactions (A priori: Compute required sample size).

ALL SUBJECTS (N-156) WERE RANDOMLY ASSIGNED TO THE GROUP USING LOTTERY RANDOMIZATION METHOD

- **GROUP 1-MENSTRUAL PADS (N-52)**
- **GROUP 2-TAMPONS (N-52)**
- **GROUP 3-MENSTRUAL CUPS (N-52)**



ALL 3 GROUPS WILL BE ASKED TO PERFORM A SET OF EXERCISES FOR THE DURATION OF 1 MENSURATION CYCLES 5 DAYS A WEEK (DURING MENSURATION ALSO). PRE-DATA AND POST DATA WILL BE COLLECTED POST DATA WILL BE COLLECTED AFTER COMPLETING 1 MENSTRUAL CYCLE USING VAS SCALE FOR PAIN AND PREMENSTRUAL SYNDROME QUESTIONNAIRE FOR PHYSIOLOGICAL SYMPTOMS, PSYCHOLOGICAL SYMPTOMS BEHAVIOURAL SYMPTOMS.

EXERCISE PROTOCOLE

- 3 SETS MINUTES OF WALKING
- 10 SETS HIGH KNEE TUCK
- 4 SETS SKY REACH
- 4 SETS TOE TOUCH
- 4 SETS NECKROLL
- 4 SETS SHOULDER ROLL
- 6 SETS BRIDGE EXERCISE
- 6 SETS DEAD BUG EXERCISE

- 6 SETS OBLIQUE ABD CURL
- 6 SETS CAT -CAMEL

PREMENSTRUAL SYNDROME QUESTIONNAIRE

VALIDITY AND RELIABILITY

In terms of reliability, Cronbach's α for PSQ score was 0.93. To assess structural validity, we used confirmatory factor analysis, which showed that the one-factor model and the two-factor model were a good fit. IEQ-chr score predicted PSQ score (standardized regression coefficient = 0.53; P < 0.0001) and higher prevalence of premenstrual disorders (odds ratio: 1.15; 95% confidence interval: 1.12–1.19).

EXERCISE PROTOCOLE

EXERCISE		DETAILS OF EXERCISE
WARMUP EXERCISE	3 SETS MINUTES OF WALKING  10 SETS HIGH KNEE TUCK 	**5 DAYS A WEEK** Warming up helps prepare your body for aerobic activity. A warmup gradually revs up your cardiovascular system by raising your body temperature and increasing blood flow to your muscles. Warming up may also help reduce muscle soreness and lessen your risk of injury.
STRETCHING EXERCISE	4 SETS SKY REACH	**5 DAYS A WEEK** Stretching is a form of physical exercise in which a specific muscle or tendon (or muscle group) is deliberately flexed or stretched in order to improve the muscle's felt elasticity and achieve comfortable muscle tone.

	 4 SETS TOE TOUCH  4 SETS NECKROLL  4 SETS SHOULDER ROLL 	
CORE MUSCLES EXERCISE	6 SETS BRIDGE EXERCISE	**5 DAYS A WEEK** Core-strength exercises strengthen your core muscles, including your abdominal muscles, back muscles and the muscles around the pelvis. Strong core muscles make it easier to do many physical activities.

6 SETS DEAD BUG EXERCISE

6 SETS OBLIQUE ABD CURL

6 CAT -CAMEL

RESULTS

The result of the study shows Tampons scores are (51.153±8.170), (43.076±6.534), (43.557±6.533) for Cycle 0 to Cycle 2. The score of Cups Groups is (48.884±8.741) (46.384±11.562), (47.000±11.367) for Cycle 0 to Cycle 2 and the pads score is (50.211±8.107), (51.153±8.170) (50.134±8.681). The P value of tampons Groups is (0.001) which shows that there are significant effects found in the Group. The P value of Cups Group is (0.460) which shows no effects in the groups. The P value of Pads groups are (0.786) which also shows no effects are found in this Group.

TABLE NO 1- Shows the demographic details

	AGE	WEIGHT	HEIGHT
TAMPONS GROUP	20.31±1.79	52.31±8.87	5.27±0.19
CUPS GROUPS	20.43±1.64	55.07±10.65	5.35±0.22
PADS GROUPS	20.35±1.69	53.13±7.58	5.35±0.20

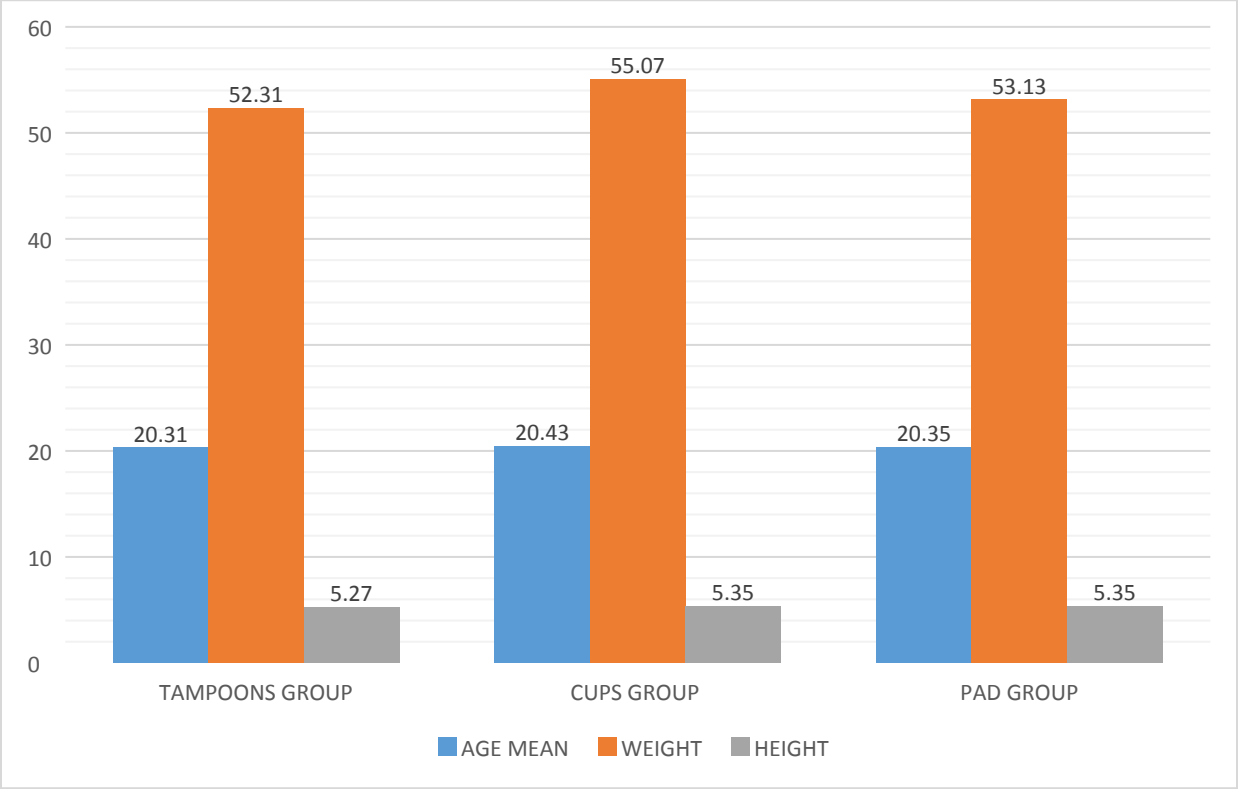
TABLE NO 2 – Shows the Mean and SD of Premenstrual Syndrome Questionnaire

	CYCLE 0	CYCLE 1	CYCLE 2
TAMPONS	51.153±8.170	43.076±6.534	43.557±6.533
CUPS	48.884±8.741	46.384±11.562	47.000±11.367
PADS	50.211±8.107	51.153±8.170	50.134±8.681

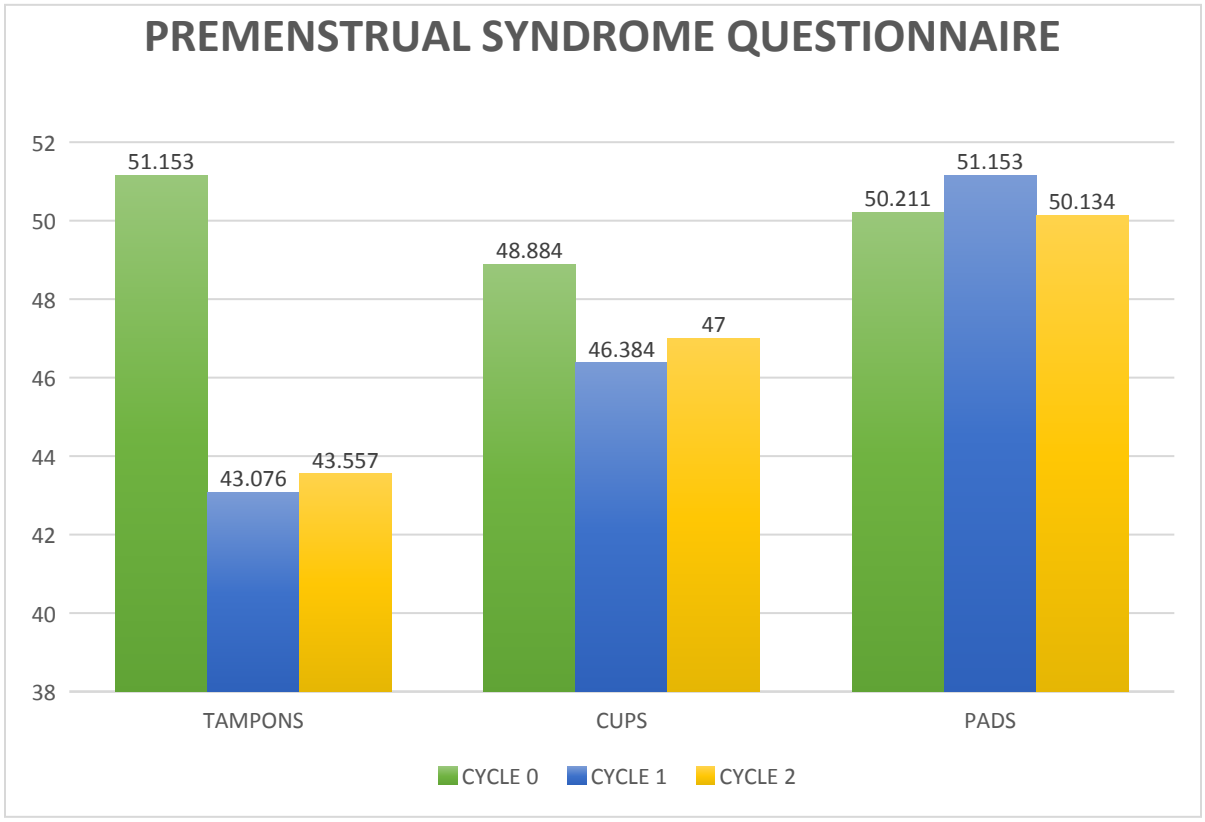
TABLE NO 3 – SHOWS The F value and P value of Anova scale (PREMENSTRUAL SYNDROME QUESTIONNAIRE)

PMS	F VALUE	P VALUE
TAMPONS	0.780	0.001
MENSTRUAL CUPS	21.049	0.460
SANITARY PADS	0.242	0.786

GHRAPH NO 1 SHOWS THE DEMOGRAPHIC DETAILS



GHRAPG NO 2 SHOW STHE PREMENSTRUAL SYNDROME QUESTIONNAIRE SCORES



DISCUSSION

According to the findings of the research, participation in physical activity had a substantial impact on the outcomes for both cycles of intervention including tampons. In terms of PMS scores, there was no discernible impact noticed in the Cups and Pads groups. The result of the study shows Tampons scores are (51.153±8.170), (43.076±6.534), (43.557±6.533) for Cycle 0 to Cycle 2. The score of Cups Groups is (48.884±8.741) (46.384±11.562), (47.000±11.367) for Cycle 0 to Cycle 2 and the pads score is (50.211±8.107), (51.153±8.170) (50.134±8.681). The P value of tampons Groups is (0.001) which shows that there are significant effects found in the Group. The P value of Cups Group is (0.460) which shows no effects in the groups. The P value of Pads groups are (0.786) which also shows no effects are found in this Group.

Similar studies have been done which has shown that Riddhi Sahu et al 2022 Prior to menstruation, many women experience a range of symptoms known as premenstrual tension syndrome (PMTS). A descriptive study examined the prevalence of premenstrual syndrome in young reproductive women. 2010 saw a revision to Rudolf H. Moos' Menstrual Distress Questionnaire. To understand the data, we used descriptive statistics. Female participants in the study totaled 500. Menstruation normally starts between the ages of 18 and 28. Female participants in this research reported mild to moderate or severe symptoms of PMS. Behavior changes, heightened awareness, and failure were the most common indicators of a mental illness. A wide range of symptoms were described by those who were impacted. The average number of pains reported by women during their periods was 47.91, with a standard deviation of 13.16, according to this research. It's possible that the symptoms of PMS have a significant influence on a woman's health in general. We can't advance in society without spending money. It is thus necessary to have a better understanding of PMS and its management.

Future scope of study

- More study can be done with higher sample size in the study.

Conflict of interest: -None

CONCLUSION

According to the findings of the study, taking part in physical activity had a significant bearing on the results for both cycles of the intervention, including the use of tampons. When it came to the PMS scores, the Cups and Pads groups did not show any noticeable influence at all.

REFERENCES

1. Kido K, Hirai A, Kasai Y, Uemura Y. Menstruation, Hygiene Practice and Menstrual Distress in Female Undergraduate Students. Women, Midwives and Midwifery. 2022 Feb 17;2(1):29–39.

2. Grant M, Lloyd C, Mensch B. Menstruation and school absenteeism: Evidence from rural Malawi. Comparative Education Review. 2013 May;57(2):260–84.

3. Eklöf S. Menstruation, Menstrual Cups and School Attendance: Evidence from a Randomized Trial in Uganda. 2019.

4. Cicurel I, Sharaby R. Women in the menstruation huts: Variations in preserving purification customs among Ethiopian immigrants. Journal of Feminist Studies in Religion. 2007;23(2):69–84.

5. Sommer M. Where the education system and women's bodies collide: The social and health impact of girls' experiences of menstruation and schooling in Tanzania. Journal of Adolescence [Internet]. 2010;33(4):521–9. Available from: http://dx.doi.org/10.1016/j.adolescence.2009.03.008

6. Sommer M, Chandraratna S, Cavill S, Mahon T, Phillips-Howard P. Managing menstruation in the workplace: An overlooked issue in low- and middle-income countries. International Journal for Equity in Health [Internet]. 2016;15(1):1–5. Available from: http://dx.doi.org/10.1186/s12939-016-0379-8

7. Mason L, Nyothach E, Alexander K, Odhiambo FO, Eleveld A, Vulule J, et al. "We keep it secret so no one should know" - A qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural Western Kenya. PLoS ONE. 2013;8(11).

8. Sivakami M, van Eijk AM, Thakur H, Kakade N, Patil C, Shinde S, et al. Effect of menstruation on girls and their schooling, and facilitators of menstrual hygiene management in schools: Surveys in government schools in three states in India, 2015. Journal of Global Health. 2019;9(1).

9. Yaren SP, Aras Gülay Asst BP, Author C, Sasmaz Y. INVESTIGATION OF THE EFFECT OF AN ONLINE YOGA-BASED EXERCISE PROGRAM ON WOMEN WITH PRIMARY DYSMENORRHEA [Internet]. Available from: https://ssrn.com/abstract=4035473

10. B DG. Comparative Study of Laura Mitchell's Physiological Relaxation Technique Versus Jacobson's Progressive Relaxation Technique on Severity of Pain And Quality of Life in Primary Dysmenorrhea: Randomized Clinical Trial. journal of medical science and clinical research [Internet]. 2017 Jul 24;5(7). Available from: http://jmscr.igmpublication.org/v5-i7/177%20jmscr.pdf

11. Babagoli MA, Benshaul-Tolonen A, Zulaika G, Nyothach E, Oduor C, Obor D, et al. The Cost - Benefit and Cost - Effectiveness of Providing Menstrual Cups and Sanitary Pads to Schoolgirls in Rural Kenya. 2020;(June):1–34.

12. Wiebe ER, Trouton KJ. Does using tampons or menstrual cups increase early IUD expulsion rates? Contraception. 2012 Aug;86(2):119–21.

13. Babagoli M, Benshaul-Tolonen A, Kerubo E, Ngere I. The Cost-Benefit and Cost-Effectiveness of Providing Menstrual Cups and Sanitary Pads to Schoolgirls in Rural Kenya Pupil Absenteeism, Measurement and Menstruation View project High-dose ivermectin for reducing malaria transmission View project [Internet]. Available from: https://www.researchgate.net/publication/342277647

14. Sahu R, Barnwal SL, Vishvakarma S. Prevalence and Severity of Premenstrual Syndrome among Young Females in Chhattisgarh, India. Asian Pacific Journal of Health Sciences. 2022 Jan 15;9(1):120–5.

15. Yadav TS, Pandey G, Kumar G. Comparison of Hematological Profile of Athletes in Various Phases of Menstrual Cycle. Asian Pacific Journal of Health Sciences. 2022 Apr 16;9(3):218–22.

16. Sravana Deepthi C, Gayathry D, Chandra Sekhar C, Sadanandam P, Bhavani K, Professor A. A cross-sectional Study on Menstrual Problems among the Adolescence Girls in Warangal City, Telangana.

17. Maurya P, Meher T, Muhammad T. Relationship between depressive symptoms and self-reported menstrual irregularities during adolescence: evidence from UDAYA, 2016. BMC Public Health. 2022 Dec 1;22(1).

18. Sharma A, Mahajan C, Saraswathy KN, Puri M, Babu N. Struggling with Primary Infertility: Psychological Well-Being and Associated Factors in North Indian Women. Journal of the Anthropological Survey of India. 2022 Jun;71(1):68–83.

19. Pandit U, Singh M, Ranjan R, Gupta V. The Effect of Exercise Training on Body Composition, Insulin Resistance and High Sensitivity C-reactive Protein (Hs-CRP) in Women With Polycystic Ovary Syndrome: A Pilot Study From North India. Cureus. 2022 Apr 10;

20. Sharma N, Basu S, Manna S, Rao S, Sharma P, Kaur H, et al. Perceptions of Good Health and Impact of COVID-19 Among Adolescents in a Low-Income Urban Agglomerate in Delhi, India: A Qualitative Study. Cureus. 2022 Apr 24;

21. Parvathy K. LIFESTYLE AS RISK FACTOR FOR BREAST CANCER: A CASECONTROL STUDY IN CHENNAI, TAMIL NADU, INDIA. International Journal on Biological Sciences. 2021;12(1).

22. Regie RC, Sajan SM. BUYING INTENSION OF MENSTRUAL CUPS AMONG WOMEN IN INDIA. International Journal of Advanced Science and Technology. 2020;29(02):13–24.

23. K. SB, Bhandary A. Menstrual cup: awareness among reproductive women. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2020 Mar 25;9(4):1382.

24. Eti M, S. SM, A. SMP. Knowledge about menstrual cup and its usage among medical students. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2019 Nov 26;8(12):4966.

25. Kaur R, Kaur K, Kaur R. Menstrual Hygiene, Management, and Waste Disposal: Practices and Challenges Faced by Girls/Women of Developing Countries. Vol. 2018, Journal of Environmental and Public Health. Hindawi Limited; 2018.

26. Torondel B, Sinha S, Mohanty JR, Swain T, Sahoo P, Panda B, et al. Association between unhygienic menstrual management practices and prevalence of lower reproductive tract infections: a hospital-based cross-sectional study in Odisha, India. BMC Infectious Diseases. 2018 Sep 21;18(1).

27. Garikipati S, Phillips-Howard PA. Information, Choice and Menstrual Outcomes: Evidence from a Community-Based Intervention in India [Internet]. Available from: https://www.liverpool.ac.uk/management/people/economics/

28. Kakani CR, Bhatt JK. Study of adaptability and efficacy of menstrual cup in managing menstrual health and hygiene. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2017 Jun 24;6(7):3045.

29. Kakani CR, Bhatt JK. Study of adaptability and efficacy of menstrual cup in managing menstrual health and hygiene. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2017 Jun 24;6(7):3045.

30. Barba-Moreno L, Cupeiro R, Romero-Parra N, Janse De Jonge XAK, Peinado AB. Cardiorespiratory Responses to Endurance Exercise Over the Menstrual Cycle and With Oral Contraceptive Use.

31. Manley H, Hunt JA, Santos L, Breedon P. Comparison between menstrual cups: first step to categorization and improved safety. Women's Health. 2021;17.

32. Yamazaki F, Kobayashi W, Suenaga M, Tsuchimoto K. Acute influence of mild cycle exercise on cold sensory function in young women with awareness of cold constitution. The Journal of Physical Fitness and Sports Medicine. 2022 Jan 25;11(1):21–8.

33. Swain CTV, Drummond AE, Boing L, Milne RL, English DR, Brown KA, et al. Linking Physical Activity to Breast Cancer via Sex Hormones, Part 1: The Effect of Physical Activity on Sex Steroid Hormones. Vol. 31, Cancer Epidemiology Biomarkers and Prevention. American Association for Cancer Research Inc.; 2022. p. 16–27.

34. Choi H, Lim NK, Jung H, Kim O, Park HY. Use of menstrual sanitary products in women of reproductive age: Korea nurses' health study. Osong Public Health and Research Perspectives. 2021 Feb 1;12(1):20–8.

35. Poli De Araujo M, Chimello L, Brigido BP, Ejnisman B, De A, Pochini C. Evaluation of the safety and comfort of menstrual cup during sport: A prospective cohort study. 2020; Available from: https://doi.org/10.21203/rs.3.rs-45210/v1

36. Igwe C.N., Azuamah Y. Menstrual Hygiene Management Practices among Undergraduates of Imo State, Nigeria [Internet]. Available from: www.ijshr.com

37. Ng S, Bardzell S, Bardzell J. The menstruating entrepreneur kickstarting a new politics of women's health. ACM Transactions on Computer-Human Interaction. 2020 Sep 1;27(4).

38. van Eijk AM, Zulaika G, Lenchner M, Mason L, Sivakami M, Nyothach E, et al. Menstrual cup use, leakage, acceptability, safety, and availability: a systematic review and meta-analysis. The Lancet Public Health. 2019 Aug 1;4(8):e376–93.

39. Seale R, Powers L, Guiahi M, Coleman-Minahan K. Unintentional IUD expulsion with concomitant menstrual cup use: a case series. Contraception. 2019 Jul 1;100(1):85–7.

40. van Eijk AM, Laserson KF, Nyothach E, Oruko K, Omoto J, Mason L, et al. Use of menstrual cups among school girls: Longitudinal observations nested in a randomised controlled feasibility study in rural western Kenya. Reproductive Health. 2018 Aug 17;15(1).

41. Ganyaglo GYK, Ryan N, Park J, Lassey AT. Feasibility and acceptability of the menstrual cup for non-surgical management of vesicovaginal fistula among women at a health facility in Ghana. PLoS ONE. 2018 Nov 1;13(11).

42. Nonfoux L, Chiaruzzi M, Badiou C, Baude J, Tristan A, Thioulouse J, et al. Impact of currently marketed tampons and menstrual cups on Staphylococcus aureus growth and toxic shock syndrome toxin 1 production in vitro. Applied and Environmental Microbiology. 2018 Jun 1;84(12).

43. Juma J, Nyothach E, Laserson KF, Oduor C, Arita L, Ouma C, et al. Examining the safety of menstrual cups among rural primary school girls in western Kenya: Observational studies nested in a randomised controlled feasibility study. BMJ Open. 2017 May 1;7(4).

44. Chandra-Mouli V, Patel SV. Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low- and middle-income countries. Vol. 14, Reproductive Health. BioMed Central Ltd.; 2017.

45. Sommer M, Caruso BA, Sahin M, Calderon T, Cavill S, Mahon T, et al. A Time for Global Action: Addressing Girls' Menstrual Hygiene Management Needs in Schools. PLoS Medicine. 2016 Feb 1;13(2).

46. Hennegan J, Montgomery P. Do menstrual hygiene management interventions improve education and psychosocial outcomes for women and girls in low and middle income countries? A systematic review. Vol. 11, PLoS ONE. Public Library of Science; 2016.

47. Phillips-Howard PA, Nyothach E, ter Kuile FO, Omoto J, Wang D, Zeh C, et al. Menstrual cups and sanitary pads to reduce school attrition, and sexually transmitted and reproductive tract infections: a cluster randomised controlled feasibility study in rural Western Kenya. Available from: http://bmjopen.bmj.com/

48. Mitchell MA, Bisch S, Arntfield FRCSC S, Hosseini-Moghaddam MPH FRCPC SM. A confirmed case of toxic shock syndrome associated with the use of a menstrual cup CASE PRESENTATION [Internet]. Vol. 26, Can J Infect Dis Med Microbiol. Available from: www.cdc.gov/nndss/script/casedef.aspx?CondYrID=869&DateP

49. Beksinska ME, Smit J, Greener R, Todd CS, Lee MLT, Maphumulo V, et al. Acceptability and performance of the menstrual cup in South Africa: A randomized crossover trial comparing the menstrual cup to tampons or sanitary pads. Journal of Women's Health. 2015 Feb 1;24(2):151–8.

50. Fisher J. Menstrual Hygiene in Ugandan schools: An Investigation of Low-cost Sanitary Pads Tracey Crofts, Freelance Consultant, Phone +44 (0) 781 6322041 Email.

51. Roma E, Okem A, Norins J, Wilmouth R, Buckley C, Hoffman V. Methodologies to measure acceptability of menstrual management products and their impacts on sanitation systems: Examples from eThekwini Municipality.

52. North BB, Oldham MJ. Preclinical, Clinical, and Over-the-Counter Postmarketing Experience with a New Vaginal Cup: Menstrual Collection.

53. Borowski A, Borowski AM. Are American women turning to reusable and greener menstrual products due to health and environmental pollution concerns? Fall 2011 "Are American women turning to

reusable and greener menstrual products due to health and environmental pollution concerns?" ACKNOWLEDGEMENTS [Internet]. 2011. Available from: http://scholarworks.rit.edu/theses

54. McMahon SA, Winch PJ, Caruso BA, Ogutu EA, Ochari IA, Rheingans RD. "The girl with her period is the one to hang her head" Reflections on menstrual management among schoolgirls in rural Kenya. BMC International Health and Human Rights. 2011;11(1).

55. Oster E, Thornton R. Menstruation, sanitary products, and school attendance: Evidence from a randomized evaluation. American Economic Journal: Applied Economics. 2011 Jan;3(1):91–100.

56. North BB, Oldham MJ. Preclinical, Clinical, and Over-the-Counter Postmarketing Experience with a New Vaginal Cup: Menstrual Collection.

57. Allen CF, Desmond N, Chiduo B, Medard L, Lees SS, Vallely A, et al. Intravaginal and menstrual practices among women working in food and recreational facilities in mwanza, tanzania: Implications for microbicide trials. AIDS and Behavior. 2010;14(5):1169–81.

APPENDICES

1. INFORMED CONSENT FORM
2. PATIENT EVALUATION PERFORMA
3. PREMENSTRUAL SYNDROME QUESTIONNAIRE

Pre-screening Questionnaire

Name:_____ Age:_____

Contact No._____ E-mail id:_____

Address:_____

- What problems do you face during Menstruation?

- Have you ever got any UTI or other vaginal infections(PCOS/PCOD)?
    - Yes
    - No
- Do you prefer consulting any gynecologist for your reproductive health issue?
    - Yes
    - No
- How many pads do you use on your first & second day of your periods?

- Do you have a 28-30 days cycle or not?
    - Yes
    - No
- Which menstrual devices do you use right now?
    - Tampons
    - Sanitary Pads
    - Menstrual cups
    - Period panties
- Under proper medical guidance,if you are asked to choose other menstrual devices would you prefer to switch to some other devices?
    - Yes
    - No
- Do you have any other health-related issues?
    - Hypertension
    - Diabetes
    - Stress

- Psychological issue

- Have you heard anyone around you using some other menstrual devices than sanitary pads?
  - If yes, what is their experience----------

- What measures do you take for managing various menstrual symptoms?

- Rate your general Health during menstruation week?
  - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10.
- Have you ever tried or performed exercises or involved yourself in any physical activity during menstruation?
  - Yes
  - No
- Do you think people having Regular cycles can perform physical activity?
  - Yes
  - No
- Have you ever used any birth control pills in last 3 months?
  - Yes
  - No
- Types of flow you experience during menstruation?
  - Heavy
  - Medium
  - Light

PREMENSTRUAL SYNDROME QUESTIONNAIRE

Full Patient Name: _____

Date: _____ **Age:** _____ **Height:** _____ **Weight:** _____

Present Contraception: ☐ none ☐ pill ☐ IUD ☐ other

History of Contraceptive Pills: ☐ yes ☐ no Number of years: _____

Please rate the following symptoms according to the degree of severity with which you experience them. Please also indicate when you experience symptoms.

1 = Mild 2 = Moderate 3 = Severe				**Week Before Period**	**Week After Period**	**Other**
PMS – A	**(Circle one)**			**(Check one)**		
Anxiety	1	2	3	☐	☐	☐
Irritability	1	2	3	☐	☐	☐
Mood Swings	1	2	3	☐	☐	☐
Nervous Tension	1	2	3	☐	☐	☐
PMS – C						
Appetite Increase	1	2	3	☐	☐	☐
Headache	1	2	3	☐	☐	☐
Fatigue	1	2	3	☐	☐	☐
Dizziness or Fainting	1	2	3	☐	☐	☐
Palpitations	1	2	3	☐	☐	☐
PMS – D						
Depression	1	2	3	☐	☐	☐
Crying	1	2	3	☐	☐	☐
Forgetfulness	1	2	3	☐	☐	☐
Confusion	1	2	3	☐	☐	☐
Insomnia	1	2	3	☐	☐	☐

1 = Mild 2 = Moderate 3 = Severe				Week Before Period	Week After Period	Other
PMS – H	**(Circle one)**				**(Check one)**	
Fluid Retention	1	2	3	☐	☐	☐
Weight Gain	1	2	3	☐	☐	☐
Swollen Extremities	1	2	3	☐	☐	☐
Breast Tenderness	1	2	3	☐	☐	☐
Abdominal Bloating	1	2	3	☐	☐	☐
OTHER SYMPTOMS						
Oily Skin	1	2	3	☐	☐	☐
Acne	1	2	3	☐	☐	☐
Constipation	1	2	3	☐	☐	☐
Diarrhea	1	2	3	☐	☐	☐
Backache	1	2	3	☐	☐	☐
Hives	1	2	3	☐	☐	☐
Weakness & radiation Down thighs	1	2	3	☐	☐	☐
DURING FIRST TWO DAYS OF PERIOD						
Menstrual Cramps	1	2	3	☐	☐	☐
Menstrual Backache	1	2	3	☐	☐	☐