

# FEMM<sup>TM</sup>

FERTILITY EDUCATION & MEDICAL MANAGEMENT

# 2024

# Letter from the FEMM CEO

2024 has been a year of great growth! Education, research, and outreach all continued to move forward and expand globally. We are grateful for all the members of our team, and the many volunteers who work to bring this knowledge and information directly to women, girls, and families.

This year, the particular focus was on growing access to our telehealth platform in the United States. Important milestones included expanding our full-time medical providers and building a process and capacity to enable us to care for more patients. We are confident that the foundation for growth and scale has been established, and we look forward to continued growth in the coming years.

Our partnership with CUHAS (Catholic University Health and Allied Sciences University) and Bugando Hospital in Tanzania allowed us to host our first FEMM medical training in Africa. We are thrilled at the amazing work they have done to integrate FEMM into their education and healthcare system, and the publications that they have released allow us to share their remarkable successes with you all. Their research publications are listed in the Research Section of this report, and I encourage you to take the time to read and enjoy them.

Growth, partnerships, and expansion continue to be our priorities as we head into this new year. We look forward to sharing our updates and successes through our communications as the year unfolds. Please continue to be in touch to share your thoughts and ideas with us!

Yours sincerely,

Anna Halpine  
CEO

# Introducing the *teen*FEMM and *teen*MEN Curriculum

To help teens understand their body and their health as they grow to full maturity

For many teens, the reproductive system is mysterious, embarrassing, or even scary. But it doesn't have to be that way. With the launch of teenFEMM and teenMEN, FEMM now offers a health program to help young people understand their health as they grow to full maturity.

A health class for teens is nothing new. And yet, there remains a large knowledge gap about fertility and the role that hormones play in both male and female overall health. For teen girls, identifying the body's ovulation within



two years of the onset of menstruation is important, because ovulation is a sign of overall health and wellness.

Many teens don't realize how much lifestyle factors such as nutrition, exercise and adequate sleep affect their hormones and their mental and physical health. teenFEMM and teenMEN Grades 6-8, cuts through the misinformation surrounding hormones and health. The lessons cover the different systems of the body, how the brain controls hormones, female and male reproductive anatomy, physical and emotional changes in puberty, social media and body image, and more!

teenFEMM and teenMEN helps young people build stronger personal identity, as teens report feeling happier and more confident after learning about the complexity of their body.

To learn more about the curriculum or download a sample lesson visit [femmhealth.org/teen](http://femmhealth.org/teen).



**TEENFEMM MADE ME FEEL BETTER ABOUT MYSELF, BECAUSE NOW I REALLY UNDERSTAND HOW MY BODY WORKS.**

**- TEENFEMM STUDENT**

# How FEMM Helped Female Athletes in Paraguay

FEMM Teacher, Tatiana Ramos

Recently, I had the opportunity to teach FEMM to a group of young female football players at a CONMEBOL (Confederación Sudamericana de Fútbol) event. It was a very exciting and enriching two days. None of the athletes knew much about fertility awareness, but they were all very receptive to the content I presented. Many of them had the FEMM app downloaded, but they thought of it as just another period tracker.

I explained that they could use the app to understand, monitor, and manage their reproductive health.

I suggested that although observing their biomarkers might seem tiring, the athletes could use this practice as a mindfulness moment to connect with their bodies and be aware that health is a priority for their job. That really changed the girls' perspective.

During the event, I met a couple of athletes who were experiencing extreme pain during their periods. These young women mentioned that their doctors downplayed their symptoms and didn't know how to help them.

I was able to connect these girls with support to find doctors who could get to the root cause of their symptoms. And I offered to provide follow-up for them as a FEMM teacher, to help them chart and reach a diagnosis with the help of a trained medical professional.

All of us who learn about FEMM want more women to know about it—not only because it helps us take control of our health, but also because it is life-changing. The level of self-awareness and control that it gives is something I wish for all women. Fertility awareness is something that all girls should have by the time they reach puberty, rather than discovering it when they are trying to conceive.

By introducing this knowledge early, we empower young people to better understand their bodies, manage their health, and make informed decisions about their well-being. This early education fosters a more positive and informed attitude towards menstrual health and reproductive cycles, which can lead to healthier habits and better overall outcomes in the future.



*Tatiana Ramos, with card of the Confederación Sudamericana de Fútbol.*



**BY CONTINUING TO EXPAND FEMM PROGRAMS, WE CAN ENSURE THAT WOMEN AND GIRLS HAVE THE TOOLS TO NAVIGATE THEIR HEALTH WITH CONFIDENCE.**

**-FEMM TEACHER, TATIANA RAMOS**



# FEMM in Africa

**FEMM is growing in Tanzania, to the benefit of women and families:**



- 34 medical doctors participated in our first-ever Medical Management Masterclass in Mwanza, Tanzania. The training was held in partnership with the Department of Obstetrics & Gynecology at Bugando Medical Center and the Catholic University of Health and Allied Sciences.
- Our colleagues at Bugando Medical Center published papers in the East African Scholars Journal of Medicine Sciences and the European Journal of Preventive Medicine.
- St. Benedict’s Ndanda Referral Hospital and Kitete Regional Hospital began using FEMM protocols to treat patients.
- Bugando Medical Center began integrating FEMM into its reproductive endocrinology course to train future generations of physicians.



## **PHYSICIAN SPOTLIGHT:** **Dr. Juliet Macharia**

Dr. Juliet Macharia is completing an Obstetrics and Gynecology residency program at the Catholic University of Health and Allied Sciences in Mwanza, Tanzania. Since learning about FEMM in 2022, she’s been using the FEMM medical protocols with great success.

Last year, Dr. Juliet saw over 300 patients, and almost all are currently ovulating. More than 65 became pregnant in a year. Dr. Juliet says that much of this success came from teaching women how to understand their reproductive cycle and manage hormonal issues like hyperprolactinemia. Last year, she and her colleagues published several new papers in the East African Scholars Journal of Medicine and Surgery and the European Journal of Preventive Medicine on using FEMM to treat patients with infertility.

**“FEMM INTERESTED ME WHEN I STARTED USING IT MYSELF AND I WAS ABLE TO TREAT SOME PATHOLOGIES EVEN WITHOUT MEDICATION. WHEN I STARTED TREATING PATIENTS WITH SUBFERTILITY, THEY BECAME PREGNANT IN LESS THAN THREE MONTHS; THIS AMAZED ME.”**

**—DR. JULIET MACHARIA**

## ORIGINAL RESEARCH article

Front. Psychol., 20 August 2024

Sec. Neuropsychology

Volume 15 - 2024 |

<https://doi.org/10.3389/fpsyg.2024.1433437>

This article is part of the Research Topic

Neuropsychology of Human Growth

[View all 6 articles >](#)

## Neuroactive hormones and personal growth: associations in Chilean adolescents (ages 12–25) with ovulatory dysfunction

Juan Pablo del Río<sup>1,2,3</sup>Valeska Tapia<sup>3</sup>Hugo Soto<sup>3</sup>Pilar Vigil<sup>3\*</sup><sup>1</sup> Departamento de Psiquiatría y Salud Mental de la Infancia y de la Adolescencia, Facultad de Medicina, Universidad de Chile, Santiago, Chile<sup>2</sup> Millennium Nucleus to Improve the Mental Health of Adolescents and Youths Imhay, Santiago, Chile<sup>3</sup> Reproductive Health Research Institute, Santiago, Chile

**Introduction:** Hormones produced by the hypothalamic–pituitary–adrenal–gonadal (HPAG) axis are crucial for modulating central nervous system (CNS) function and development throughout a person's life. Disruptions in HPAG function can impact psychological development, particularly during adolescence—a period marked by psychological growth and the maturation of the HPAG axis. An early indicator of HPAG alterations is ovulatory dysfunction (OD), a common condition among adolescents.

**Methods:** This study explored the associations between neuroactive hormones and personal growth in adolescents with OD. Female participants aged 12–25 years with OD were recruited, and assessments were conducted to profile their basic hormonal levels and various dimensions of individual development, including self-concept clarity, sense of coherence, self-esteem, perfectionism, self-control, and mood states.

**Results:** Adolescents with OD ( $n=117$ ) had lower self-concept clarity and self-esteem compared to reference data. A significant portion of the sample displayed elevated levels of tension (71.25%), confusion (62.5%), fatigue (58.22%), and depression (52.6%). Self-esteem scores were negatively correlated with DHEAS ( $r=-0.224$ ;  $p=0.026$ ) and glucose ( $r=-0.249$ ;  $p=0.010$ ). Higher levels of free testosterone were associated with increased depression scores (coef=0.2398;  $p=0.002$ ), whereas higher estradiol levels were linked to lower aggressiveness scores (coef=-0.0648;  $p=0.001$ ).

FEMALE PARTICIPANTS AGED 12–25 YEARS WITH OVULATORY DYSFUNCTION (OD) WERE RECRUITED, AND ASSESSMENTS WERE CONDUCTED TO PROFILE THEIR BASIC HORMONAL LEVELS AND VARIOUS DIMENSIONS OF INDIVIDUAL DEVELOPMENT, INCLUDING SELF-CONCEPT CLARITY, SENSE OF COHERENCE, SELF-ESTEEM, PERFECTIONISM, SELF-CONTROL, AND MOOD STATES.

ADOLESCENTS WITH OD HAD LOWER SELF-CONCEPT CLARITY AND SELF-ESTEEM COMPARED TO REFERENCE DATA.

This RHRI research indicates that ovulatory dysfunction in adolescents is associated with certain problems in psychological and personal growth. The interdisciplinary study fills a gap in the scientific literature, as there have not been many studies on the impacts of ovulatory dysfunction on adolescent psychological development.

## East African Scholars Journal of Medicine and Surgery

Abbreviated Key Title: *EAS J Med Surg*  
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Published By East African Scholars Publisher, Kenya



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DOI: 10.36349/easjms.2024.v06i02.008

## Case Report

## Heartache to Happiness: Managing a Six Year Hormonal Subfertility with a Successful Rate of Conception

Sr. Juliet Macharia<sup>1</sup>, Albert Kihunrwa<sup>2\*</sup>, Richard Kiritta<sup>1</sup>, Dismas Matovelo<sup>1</sup>, Godfrey Kaizilege<sup>2</sup>, Sr. Clotilda Chuma<sup>2</sup>, Feredina John<sup>2</sup>

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WE DIAGNOSED HER WITH HYPERPROLACTINEMIA AND INSULIN RESISTANCE. HYPERPROLACTINEMIA AND HYPERINSULINEMIA ARE AMONG THE METABOLIC DISORDERS THAT LEAD TO SUBFERTILITY IN WOMEN. AFTER THREE MONTHS OF MEDICATION, THE PATIENT EXPERIENCED TWO DAYS OF SLIPPERY CERVICAL MUCUS ...IN THE FOURTH MONTH SHE MISSED HER MENSES AND IT WAS CONFIRMED THAT THE PATIENT HAD CONCEIVED...

**Abstract: Background:** The inability to conceive is emotionally distressing and indeed a very painful struggle in which the pain stays with the individual every day. Hormonal disorders are the leading cause of infertility globally. They do not only include the hypothalamic pituitary ovarian axis but also the non-reproductive endocrine glands. Hormonal management helps promote ovum maturation, which triggers ovulation, increasing the likelihood of conception. **Case presentation:** We report a 36-year-old African lady who presented with an inability to conceive for six years since marriage and it was associated with an irregular menstruation cycle length of twenty-four to thirty-six days. She had anovulatory cycles for seven years, and high Prolactin levels. Her body mass index was 34.4kg/m<sup>2</sup>. She had visited several hospitals in and outside Tanzania without success in conceiving. At Bugando Medical Centre we managed her case by diet, fertility awareness, and medical management. She conceived after three months of treatment. **Conclusion:** Anovulatory cycles with abnormal bleeding patterns are a major cause of infertility in reproductive woman. Basic hormonal profiles are essential to confirm where the problem is. Prolactinemia and insulin resistance affects ovulation. Fertility awareness, lifestyle changes, and medical management will bring back happiness to most women with subfertility secondary to hormonal disorders.

**Keywords:** Subfertility, obesity, hyperglycemia, hyperprolactinemia, anovulatory, FEMM.

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Researchers from Bugando Medical Center report on a patient who had been trying to conceive for six years. The patient was not ovulating, had high Prolactin levels, and a high BMI. Using diet, fertility awareness, and medical management, FEMM-trained providers were able to help the patient conceive after just three months.

“THE MOST COMMON CAUSES OF MENSTRUAL IRREGULARITIES ASSOCIATED WITH OVULATORY DYSFUNCTIONS ARE HORMONAL ABNORMALITIES WHICH CAN BE HYPOTHALAMIC, PITUITARY, THYROID, ADRENAL, OVARIAN, OR METABOLIC DISORDERS.

*European Journal of Preventive Medicine*  
2024, Vol. 12, No. 6, pp. 146-153  
<https://doi.org/10.11648/j.ejpm.20241206.13>



Research Article

## Abnormal Menstrual Chart Patterns, Their Treatment and Fertility Outcome Among Women with Hormonal Infertility at Bugando Medical Centre, Mwanza, Tanzania

Juliet Macharia<sup>1</sup> , Albert Kihunrwa<sup>1,\*</sup> , Dismas Matovelo<sup>1</sup> ,  
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<sup>1</sup>Department of Obstetrics and Gynecology, Catholic University of Health and Allied Sciences, Mwanza, Tanzania

<sup>2</sup>Department of Pediatrics and Child Health, Bugando Medical Centre, Mwanza, Tanzania

A study involving 230 women with hormonal infertility was carried out from March 2023 to March 2024. After just three months of treatment with FEMM protocols, 85.2% of the women showed improvement in cervical mucus consistency, 93.9% had normal bleeding patterns, and one-third conceived.

“MANY TIMES THE ANSWERS TO INFERTILITY ARE HIDING IN PLAIN SIGHT WITHIN THE PATTERNS OF A WOMAN'S MENSTRUAL CYCLE. FAILURE TO OVULATE IS THE FIRST SIGN OF AN UNDERLYING HEALTH CONDITION IN A WOMAN FOLLOWED BY IRREGULAR CYCLES.

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#### Case Series

## Effectiveness of Femm Approach in Managing Women with Subfertility in Mwanza, Tanzania

Sr. Juliet Macharia<sup>1</sup>, Albert Kihunrwa<sup>2\*</sup>, Edgar Ndabobe<sup>2</sup>, Dismas Matovelo<sup>1</sup>, Fridolin Mujuni<sup>1</sup>, Richard Kiritta<sup>1</sup>, Elieza Chibwe<sup>1</sup>, Sr. Clotilda Chuma<sup>2</sup>, Godfrey Kaizilege<sup>2</sup>, Edmund Ngaiza<sup>2</sup>, Sr. Happy Mbena<sup>2</sup>, Prosper Shayo<sup>2</sup>, Alphard Kajura<sup>1</sup>, Rumanyika<sup>1</sup>, Danielle Koestner<sup>3</sup>

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Published by a team of FEMM-trained medical providers, this case series focused on four female patients in Tanzania, all of whom had tried unsuccessfully to conceive for 5+ years. Thanks to FEMM protocols, all the patients conceived within two to four months of receiving treatment.





## How the FEMM App Changed My Life

FEMM App User

My journey with FEMM started in 2016, two years before I got married. At that time, I was just curious and wanted to track my health. I loved the fact that the FEMM app was reliable and had a lot of user-friendly features.

After I got married, it took about eight months to conceive my first child. I was on track with the app and everything seemed relatively normal. But then, one year after my first child was born, the app kept flagging my luteal phase as short. I knew that was a red flag. Sure enough, when I got pregnant about thirteen months later, I lost the baby at seven weeks.

After that loss, it seemed like my whole system went haywire. I noticed there were no more obvious signs of ovulation, and I had all sorts of uncomfortable symptoms around the time ovulation should have come. I was able to put all this together on my own because of the FEMM app.

After about a year of not being able to conceive and not experiencing obvious signs of ovulation, I reached out to Dr. Nkechi, who is a FEMM doctor and educator. After listening to me as I explained my symptoms and studying my data, she confirmed my suspicions and referred me for some tests. The tests revealed that I had an elevated prolactin level. She went on to prescribe a medication to bring down my prolactin levels.

I was supposed to take it every week for four months and then get re-evaluated. I only got through to the second week and then another baby was on the way. Dr. Nkechi quickly referred me to a doctor who could monitor my progesterone levels because they turned out to be low. I was placed on progesterone shots until about six months because of the dwindling levels.

As I write this, I am about seven months pregnant with baby number three. My progesterone is at optimal levels within the first trimester.

FEMM has taught me to understand my body so much that I can already tell something is off even before I get confirmation from a doctor. I would never have been able to do this without my experience with FEMM.



# FEMM Telehealth Continues to Go the Distance

For many women, their reproductive health is a topic that causes a lot of confusion and anxiety. Why am I experiencing this symptom? Is this pain normal? Are these symptoms related or is it all in my head? Where can I find a doctor who will take these symptoms seriously? FEMM offers solutions.

In 2024 we welcomed **3 more providers** to our Telehealth team. FEMM's telehealth platform now serves patients in 40 states across the United States and around the world and accepts most forms of major health insurance.



**Dr. Karen Poehailos**



**Maureen McCarthy, CNP**



**Julie Baltz, MHS, PA-C**

I REALIZED THAT JOINING THE FEMM TELEMED PLATFORM WAS AN AMAZING OPPORTUNITY TO WORK WITH WOMEN IN THE AREA OF REPRODUCTIVE HEALTH AND ALSO TO CONTINUE HELPING OTHER CLINICIANS TO LEARN THE FEMM PROTOCOLS. **-KAREN POEHAIOS**

WE CAN REACH GREATER DISTANCES OVER TELEHEALTH, PLANT MORE SEEDS, IMPROVE MORE LIVES... HEARING A WOMAN TELL ME OF THE IMPROVEMENTS IN HER HEALTH, HOW MUCH BETTER SHE FEELS, AND THEN HEARING HER SAY, "YOU HELPED MY SISTER, TOO"... THAT'S A WIN-WIN! **-JULIE BALTZ**

## FEMM Board

- Dr. Tim Flanigan, Chair
- Suzi Piening
- Dr. Bob Scanlon
- Anna Halpine (ex-officio)
- Mary Glass
- Ana Paternina
- Laurance Alvarado

# 2024 Finances

<b>Income</b>	<b>2024</b>	<b>2023</b>
Contributions and grants	987,567	481,241
Program Revenue	361,410	353,500
Clinic fees	378,837	189,411
Employee Retention Credit income	-	2,707
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Total Income	1,727,814	1,026,859
<b>Expenses</b>	<b>2024</b>	<b>2023</b>
Program services	1,442,807	907,928
Management and General	82,539	198,013
Fundraising	8,829	18,727
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Total Expenses	1,534,175	1,124,668

Change in Net Assets	193,639
Net Assets (Start of the Year)	40,848
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Net Assets (End of the Year)	234,487

The summary financial information is derived from our 2024 audited financial statements.

FEMM is tax-exempt under section 501(c)(3) of the Internal Revenue Code.

Donations are tax-deductible to the extent allowed by law.

# FEMM

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