

# **Bridging the Information Gap through Consumer Health Communication: addressing PCOS Awareness Among Indian Women**

*This written piece was originally developed as a project proposal for my graduate course in Consumer Health Information at the University of North Carolina at Chapel Hill. It was well received by the faculty for its innovative and community-centered approach to health information.*

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## **Innovation doesn't always look like algorithms or machine learning models.**

Sometimes it looks like a translated infographic, a WhatsApp message from a chatbot, or a school lesson that tells a girl, "What you're feeling is real, and here's what to do about it."

In a country as diverse and dynamic as India, healthcare conversations often overlook one critical demographic—young women struggling with reproductive health conditions like Polycystic Ovarian Syndrome (PCOS). PCOS affects between 3.7% to 22.5% of Indian women of reproductive age, yet awareness remains shockingly low<sup>2,3,4</sup>. This isn't just a medical problem—it's a social, cultural, and economic issue<sup>1</sup>. As someone who has grown up in India, studied globally, and now works at the intersection of data science and user experience, I see a unique opportunity to drive change through better health communication. This proposal aims to use consumer health information to bridge a deeply ingrained information gap and bring visibility to an underserved condition that impacts millions of women—many of whom don't even know they have it.

I was fortunate to receive a high-quality education at an international school in Mumbai—one that didn't shy away from difficult conversations. From a young age, I was exposed to open discussions about global history, gender, reproduction, politics, and public health. We had structured, age-appropriate seminars on these topics, which cultivated my awareness early on. But that privilege came with a realization: most girls in India never have access to those kinds of conversations. The gap between my experience and that of peers from different regions or economic backgrounds was—and still is—staggering. Many never even hear the term "PCOS" until adulthood, often after years of unexplained symptoms or misdiagnoses. That disparity, rooted in education, economics, and gender, is what drives my commitment to change.

In the final year of my undergraduate degree, I co-led a project called 'Early Detection of PCOS using Machine Learning'. Even in a highly educated academic setting, I noticed that the condition was poorly understood. Two out of five women on my team had PCOS, yet we still struggled to openly talk about it. That experience exposed a larger issue—one where cultural silence and lack of access to tailored health information result in women being disconnected from their own well-being.

Now, as a graduate student in Information Science focusing on Data Science and User Experience (UX), I want to bring a practical, inclusive lens to the problem. My goal is to design consumer health communication strategies that resonate with Indian women—especially those in rural, economically disadvantaged, or culturally conservative settings. These are women who don't just need health information; they need it delivered in ways they can access, understand, and act upon.

To ground my thinking, I've applied the **PICO framework**, a structured approach used in evidence-based healthcare research to develop targeted interventions. PICO stands for Population, Intervention, Comparison, and Outcome. In this context, the **population** is Indian women of reproductive age with limited access to information about PCOS. The **intervention** is the creation of culturally relevant, localized consumer health content. The **comparison** lies in evaluating Western-centric resources (like those from the American Medical Association), which, while medically sound, often don't consider the socio-economic, linguistic, or cultural context of Asia-Pacific (APAC) users. The outcome we're working toward is greater awareness, earlier diagnosis, and empowered health-seeking behavior. Far from being just an academic exercise, PICO here serves as a roadmap for designing effective communication tools rooted in empathy and accessibility.

India's healthcare disparities are deeply layered. A high out-of-pocket spending rate makes specialized care inaccessible to many. In rural and low-income urban areas, infrastructural gaps and cultural stigmas compound the issue. Reproductive health often takes a backseat in household priorities—especially when women are expected to quietly endure discomfort. Meanwhile, educational inequality ensures that many girls grow up without even basic knowledge of their hormonal or reproductive systems. PCOS sits at the intersection of all these challenges.

So, what's the solution? First, we need to meet women where they are—digitally. India is a mobile-first country, and digital platforms are often the first point of contact for health information. I envision a multi-platform strategy that includes Instagram, WhatsApp, and regional-language YouTube content, all designed with clear visuals, simple language, and culturally relevant framing. Collaborating with influencers that believe making reproductive health more approachable, could amplify this messaging and break down barriers in real time. Some Indian-based social media platforms in relation to this proposal are @leezamangaldas or @chitrasgirltalk on Instagram.

Second, we need to start earlier. School-based education should include modules not just about puberty but about real reproductive health issues like PCOS, endometriosis, and infertility. Informed teenagers become empowered adults. My own experience with progressive education showed me what's possible when students are trusted with real information. If that level of awareness could be scaled across socio-economic and regional divides, the impact would be transformative.

This proposal is more than a project—it's a commitment. As a South Asian woman in technology and public health, I carry both the privilege of access and the responsibility to advocate. PCOS is just one of many invisible struggles faced by Indian women. But with the right tools—designed *for* them, not just *around* them—we can begin to shift the narrative and create real, meaningful change.

## REFERENCES

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