Investigating the Case of Menstrual Health Education and Management in the Urban Environs of India

Anupriya Tuli
IIIT-Delhi
Delhi, India
anupriyat@iiitd.ac.in

Neha Kumar
Georgia Tech.
Atlanta, Georgia, USA
neha.kumar@gatech.edu

Pushpendra Singh
IIIT-Delhi
Delhi, India
psingh@iiitd.ac.in

Abstract

In cultures like India, where menstruation is a conversational taboo, delivering information about Menstrual Health becomes challenging. The most prevalent approach to delivering the information is via the school curriculum, which covers the subject very scantily in the current form. Given the lack of open discussion, the curious adolescents rely on peers and media as a source of information on the subject. The current approach facilitates the transfer of stigma, taboo, and myths to the next generation. In this research, we have conducted multiple qualitative studies to study the role and scope of ICTs for menstrual health education (MHE) and management (MHM) in India.

Introduction

Globally there is an increasing push towards women's health, wellbeing, and empowerment. The sustainable development goals (SDG 3 and SDG 5) emphasizes on ensuring universal access to reproductive health while promoting the use of information communication technology (ICT) to achieve the goal [1]. Similarly, in recent years, women's health has been receiving attention in the field of Human-Computer Interaction (HCI) [2], with researchers investigating technology-based interventions for various issues, including intimate care, maternal health, breast cancer, breastfeeding, pelvic fitness, and more (*e.g.,* [3, 4, 5, 6, 7, 8]). Recent studies in the domain also highlight the need and value of studying the social impact of women's health issues [4, 8]. Menstrual health is one such issue that is receiving growing interest, with

researchers primarily studying mobile application based tracking practices and ethical concerns of collecting and managing intimate data through such apps [9, 10, 11, 12, 13, 14, 15, 16, 17]. However, the studies on menstrual health are predominantly from the Global North, and the issue remains underexplored in the cultures where it receives a tabooed treatment.

The Indian society views menstruation as a conversational taboo, thus making dissemination of menstrual health education a challenging process [18, 19]. People primarily avoid the discourse on the subject in both the personal (home) and professional settings (school), leading to high dependency on peers and media platforms (internet search, social media, mobile apps, and more) for information on the subject. In this research work, we extend and contribute to the domain of women's health in HCI by studying the scope of ICTs for menstrual health education and management in the urban Indian context of Delhi. We take a qualitative approach to study the current practices related to and of menstrual health, the role technology plays in these practices, and the scope of new technologies. Through a series of studies conducted in Delhi, this research highlights how cultural norms and associated taboo shaping the practices, choices, and discourses on the subject need to be acknowledged and addressed in designing a technology-based menstrual health intervention.

Our Research

We started our research in April 2017 by studying literature and government reports on menstrual health education in India. An extensive amount of reports, articles, and studies served as evidence for the dire need for timely education and sensitization of menstrual health to circumvent tabooed treatment of the subject. However, we observed a dearth of work discussing menstrual health education dissemination practices in India. Thus, we started our research with an exploratory study to understand the prevalent MHE dissemination practices across professional (school) and non-professional (home and society) settings while gauging the role of and scope technology-based intervention.

In the first study [20], we conducted a qualitative inquiry of current approaches used to educate adolescents about menstruation. We performed a content analysis of the education and training materials in use. We also examined the perspectives of stakeholders (young adults, parents, teachers, social workers, and health professionals) by conducting an online survey, interviews, and focus groups. The findings indicate that although detailed and descriptive information materials are available for use (both online and offline), there exists a disconnect between parents' and teachers' expectations regarding who will introduce these topics to adolescents. Also, there is a clear difference in attitudes regarding who must be taught, how, where, and at what stages.

In the school's professional settings, the topic is first introduced at the age of 13, when the average age of menarche is 8 to 9 years. Often, the teachers skip the subject, when the curriculum only covers the physiology of menstruation, to avoid the discomforting classroom environment. At home, society places the onus on mothers to familiarise their daughters on the subject. Even then, the focus is on how to use a menstrual product and the expected social behavior and cultural practices (e.g., not visiting the temple, not entering the kitchen, and more). In a situation where menstruation is barely talked about and only in hushed voices, it is the peers and the media who present the role of confidant for curious adolescents.

We analysed our findings using the feminist HCI [22] lens to articulate the sociotechnical recommendations for designing of a technology-based menstrual health intervention. This work was followed by performing a case study of an existing ICT based intervention designed specifically for our study context.

In our second study [21], we contribute a qualitative instrumental case study of Menstrupedia (https://www.menstrupedia.com/) — a digital platform designed for an Indian audience aiming to bridge the existing information gap by imparting MHE via its website and comic. We studied the information exchange on the website, the education it aims to provide, and its users' perceptions to study the information seeking and knowledge construction patterns around MHM

in online settings. Working towards our objective, we performed a content analysis of the available educational information (Learn section) and information being exchanged (Q\&A forum) on the website. We also conducted think-aloud comic reading sessions with young adults across gender to gauge the users' perception. Finally, we engage with the feminist HCI [22] lens to critically analyze Menstrupedia's affordances and shortcomings to make recommendations for the design of technology-based dissemination of MHE for the Indian context.

In our future research, we plan to conduct similar investigations while working towards developing a framework for designing an ICT based intervention for menstrual health education and management for the Urban Indian context.

Benefit from HCIxB

As discussed above, several SDGs are framed towards the empowerment of women, with a focus on women's health and wellbeing. For example, SDG3 – Good Health and Wellbeing, emphasizes on the need for universal access to sexual and reproductive health care and education across genders, while SDG5 – Gender Equality, promotes the use of ICTs for achieving women empowerment [1]. It is at the intersection of SDG3 and SDG5, where we position our work and its contribution, which directly aligns with the theme of the symposium. Participating in the symposium will allow me to share my learnings and challenges faced in researching conversational taboo subjects. Also, aligning with the theme of "across borders" this will be an opportunity for me to engage in discourse and seek feedback from the experts and peers working in a similar context, facing similar challenges in a different context, and/or using identical or different methods to address such problems.

Author Biography

Anupriya Tuli is a Ph.D. student in Human-Centered Design at IIIT-Delhi, India. Her work lies at the intersection of human-centered computing and healthcare for development. She engages with

feminist perspectives for designing technologies for women's advocacy and works extensively with practitioners and non-governmental organizations (NGOs) working on menstrual health.

Neha Kumar is an assistant professor at Georgia Tech, and conducts research at the intersection of human-centered computing and global development. She works on topics around women's health, with a particular focus on the social and affective aspects of health and "last-mile delivery" of healthcare.

Pushpendra Singh is a professor at IIIT Delhi. He works in the area of HCI, data analytics, and mobile systems and applications. He is interested in developing technological solutions for solving societal problems primarily in the areas of Healthcare and Education in the context of developing countries.

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