# Learning to Navigate Health Taboos through Online Safe Spaces

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## ABSTRACT

Social and cultural taboos frequently prevent meaningful conversation around gendered health and wellbeing, across the globe and to varying degrees. Safe spaces can offer potential avenues to nurture non-judgmental environments for dialogue and opportunities for learning to talk through taboos. To this end, we curated an online safe space on WhatsApp—with 35 participants of Indian origin—to facilitate conversations around diverse topics related to gendered health and wellbeing. We observed participant activity for two weeks, before conducting in-depth interviews with 10 participants to better understand their experiences of engaging within the WhatsApp group. We use the lens of Legitimate Peripheral Participation to examine how peripheral and core members of the community drew on new audiences and support systems as they questioned existing structures upholding taboos. We discuss scaffolding mechanisms that could enhance learning about taboo topics in online safe spaces, and the tensions of anonymity in such learning spaces.

## CCS CONCEPTS

• **Human-centered computing → Human computer interaction (HCI)**.

## KEYWORDS

Health, wellbeing, gender, online, taboo, legitimate peripheral participation, qualitative methods

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## 1 INTRODUCTION

Human-Computer Interaction (HCI) research is increasingly investigating the social and cultural determinants of health, with a view to understanding how technology might play an enabling role in such contexts (*e.g.,* [10, 26, 66, 72]). Research on gendered health and wellbeing, in particular, has examined how gender factors into and complicates careseeking and caregiving behaviors (*e.g.,* [8, 37, 43, 62]). As health communication increasingly moves into technological landscapes, HCI research has been focusing more on conversations around health in online communities on different platforms (*e.g.,* [2, 5, 22, 35, 84]). Our research builds on and extends this work by studying and developing insights on how online safe spaces for women and gender minorities might ease communication in the presence of restrictive social and cultural taboos surrounding gendered health and wellbeing.

Health contexts pertaining to gender tend to be stigmatized, and this has been a common finding across disparate cultures and geographies (*e.g.,* [4, 14, 61, 78]). In the Indian context, which is where we focus our research, researchers have examined a number of stigmatized settings around menstrual health and maternal health (*e.g.,* [30, 39, 76–78]), as well as topics relating to gendered wellbeing more generally (*e.g.,* capabilities [38], aspirations [40, 64], safety [1, 33, 67], and privacy [68]). Similar challenges in accessing necessary and desired care-relevant information have been uncovered in other regions across the Global South (*e.g.,* [55, 58, 59, 75]) as well as the North (*e.g.,* [9, 19, 73]). Much of this prior work focuses on contexts surfacing low technology adoption among women and gender minorities, but this backdrop is rapidly changing, as prior work has recorded [32]. With rising adoption of personal and mobile technologies—increasingly, across the world—our research was aimed at understanding how women and gender minorities might approach and engage in conversations around taboo topics in the context of gendered health and wellbeing.

Towards our research goal of understanding the design of learning-based approaches for facilitating communication in taboo health contexts, we partnered with a Partner Health Organization (PHO) that has been working towards health and wellness solutions targeting Indian women from middle-income households since 2019, and has an active social media presence and following. In collaboration with the PHO, we created and moderated a WhatsApp community of 35 individuals, consisting of women and gender minorities. After prompting conversations on topics around gendered health and wellbeing for two weeks, we conducted in-depth interviews with

10 of these 35 participants, asking them about their participation in the WhatsApp group, and focusing specifically on their comfort and safety. Our findings highlight aspects of online spaces that allowed the participants to express themselves freely, like avenues for open communication on topics that were taboo among social circles, and how relative anonymity and perceived group solidarity enabled engagement on these topics. We further unpack how our participants began to question the origins of taboos they had internalized over time, including the sociocultural factors holding them in place. Finally, we present how our community members socially constructed a community knowledge based on their learnings from their participation in the group, in particular on ways to constructively engage with taboos in their lives, and among their social circles.

Our paper is structured as follows. We begin by situating our research at the intersection of health communication and taboos, online safe spaces, and Legitimate Peripheral Participation (LPP) in communities of practice [42]. We use the LPP framework to analyze the data from our interviews, building on Kumar et al.'s recommendation for framing challenges regarding taboo health contexts as *learning* problems and not only *access* problems [38]. Our contributions to HCI are threefold. First, we present an empirical analysis of the learning that took place in a community setting towards undoing and overcoming taboos around health topics. Second, we discuss these findings to offer insights around scaffolding mechanisms that enhance learning in spaces centered around improving overall health and wellbeing. Finally, we advance current conversations around the interplay between anonymity and safety in online spaces by describing the role of partial anonymity in supporting safety and encouraging learning within the WhatsApp community.

## 2 RELATED WORK

We now summarize existing HCI research that our work aims to build on and extend, drawing on prior work on health communication and taboos as well as research on online safe spaces. We then discuss LPP and how this framework has previously been leveraged in HCI research, as well as how we bring it into ours.

### 2.1 Health Communication and Taboos

HCI researchers have actively investigated taboo topics relating to gendered health and wellbeing, with focus towards topics such as eating disorders [12, 13], mental health [64, 65], HIV/AIDS [46, 49], Post-Traumatic Stress Disorder (PTSD) [20], among others. Maestre's research takes a critical lens on how people deal with HIV-related stigma in their lives [46]. This also includes describing proactive and reactive strategies to disclosure, and suggesting technological design implications that empower HIV-positive people while considering their privacy, trust, intimacy, and social support needs [49]. The problems associated with self-disclosure of stigmatizing aspects of individuals' identities on social networks have increasingly been receiving more attention. For example, Andalibi et al. studied self-disclosure of pregnancy loss on Facebook [4], sexual abuse [6], and depression [7], drawing attention to the social, cultural, and technological factors hindering disclosure, and how reduced stigma could encourage disclosure [3]. Haimson studied the differential usage of Tumblr and Facebook among people going through gender transitions, noting how the relative anonymity of Tumblr afforded a space for more disclosure and support when compared to a more public social media identity on Facebook [23].

Recent conversations in the HCI community have examined conducting human-centered research with stigmatized populations to uncover and address their situated problems, focusing on considerations for privacy practices, informed consent, and participant recruitment [47]. Seeking to address some of these concerns, Naseem et al. studied the design of peer-support platforms for women in Pakistan, examining the challenges around establishing safe spaces in patriarchal contexts, where seeking support is often difficult for a number of reasons [60]. Asynchronous remote communities (ARC) have surfaced as a research method well-suited for research with stigmatized populations as they can help overcome some of these identified problems [45]. ARCs create online communities—like secret Facebook groups—drawing geographically distributed populations in to a common virtual space to engage in research activities over multiple weeks or months [48]. Our study draws on these approaches, and seeks to make space for interactions around taboo health topics among geographically dispersed populations.

HCI research on gender and health in the Indian context has covered a wide range of topics, from menstrual and sexual health to maternal and child health. For example, Tuli et al. discussed the disconnects that impact access to information around menstruation, and the roles that parents and teachers play in delivering this information to adolescents [78]. Jain et al. worked on creating a tablet that could be used by young girls in Assam, India, to get support and information to help alleviate taboos surrounding puberty and menstruation [30]. Additionally, due to the lack of open communication around these topics, tools such as Menstrupedia have been developed [69]. Menstrupedia is a digital platform that provides menstrual health education to the Indian audience with the aim to mitigate the myths around taboo topics such as menstruation, normalizing it as a biological process from an early age [69, 76]. Researchers have tried to mitigate the effects of taboos on health outcomes in the Indian context by 'sidestepping' this taboo in educational contexts to provide crucial information in culturally appropriate forms (*e.g.,* [74]). Recognizing the barriers to open engagement about sexual health and HIV in classroom settings, Sorcar et al. employed culturally responsive ways of providing sexual health education—making space for conversations about sexual health. Our paper seeks to extend this body of work by creating and observing a relatively anonymous, online safe space for conversations on taboo health topics in India. Through prompting discussions on such topics, we intend to study how taboos affect our participants' engagement with those topics, and how communities could work towards collectively shedding such taboos.

### 2.2 Online Safe Spaces

Safe spaces are dedicated environments that offer protection from violence, harassment, or hate speech. The concept of safe spaces takes its origin in queer activism spaces in the 20th century, as spaces for resistance against violence [36]. Current understandings of safe spaces now encompass safety from emotional harassment and stigmatization [70], where the meaning of safety can depend heavily on identities, histories, and geographies [36, 70].

The growth of safe spaces for community formation and engagement has spurred research focused on the design of safe spaces for gender and sexual minorities. Online communities have been researched as safe spaces for non-binary and transgender individuals [70], with other literature critically examining intra-community power dynamics and conflicts in such spaces [79]. Studying an overlap of online safe spaces and gendered safety concerns in India, Sharma et al. propose that safety, inclusivity, and the presence of support through peer relationships are all necessary features in fostering safety and relationships [71].

Other studies have deeply investigated the workings of safe spaces that afford safety, in both the physical and online contexts. Haimson et al. researched the aspects of Trans Time, a social media site meant to help trans people document their transitions, that enabled the site to become a supportive safe space and model for other transgender-specific social media sites [24]. In a study regarding the efficacy of panic buttons in India, Karusala and Kumar uncovered the complexity of factors contributing to a woman's sense of safety and discussed the equal need to address infrastructural issues in conjunction with the development of safety technology [33]. Tuli et al. also studied the conceptualizations of safe spaces according to menstruating women in India, revealing a balance of personal and local framings of safety that shaped the extent to which women could manage their menstrual hygiene while in transit [77]. Moreover, Menking et al. have researched how women Wikipedia editors navigate spaces that make them feel unsafe to participate, uncovering the subsequent strategies that these women employ to construct safety for themselves in both on-Wiki and off-Wiki online spaces [52].

Anonymity is a vehicle towards achieving safety in an online space. Anonymity is a crucial affordance of online safe spaces, especially for those who may not feel comfortable participating in conversations around stigmatized experiences. Prior research has shown that increased anonymity can facilitate the disclosure of sensitive experiences: Andalibi et al. found that on Reddit, users sought out and utilized "throwaway" accounts or an extra layer of anonymity and that these types of accounts typically resulted in more support seeking engagement than identified accounts [6]. Kang et al. reported that anonymous apps are believed to allow for more honesty, openness, and diversity of opinion, revealing how anonymity can enable interaction [31]. However, there has also been research published on how anonymity presents dangers and threats of harm with the guise of full identity protection. For example, Millen and Patterson have shown that real names have been suggested to help promote accountability and trust [54], therefore highlighting the ways in which anonymity can negatively affect the connections made within a safe space.

Existing literature has investigated online communities through various angles, with a large focus on the medium of online support and the actual topics of online support communities. The hosting of support seeking on social media platforms has become increasingly popular and has been studied at length, spanning from studies on mental health discourse and sexual abuse support on Reddit [6, 17], women-only Facebook groups for peer support regarding taboo narratives in Pakistan [84], to online health communities on Twitter [18]. Another study also showed that social support in online spaces could in fact be beneficial. By measuring posts on suicidal ideation-related posts on Reddit, the authors found that the linguistic features of certain types of support have the tendency to reduce one's risk of suicidal ideation in the future [15]. We build on this body of literature by analyzing how our community served as a safe space for engagement on taboo topics, and how the forms of engagement allowed for unlearning old, and relearning new, ways to conceptualize taboo health topics.

## 2.3 Legitimate Peripheral Participation (LPP)

To analyze community engagement, we used the theory of Legitimate Peripheral Participation (LPP) [42]. LPP affords a lens to unpack how newcomers in 'peripheral roles' advance to more 'core roles' in a *Community of Practice* (CoP)—a group of individuals with a shared domain of interest, engaging in common activities and supporting each others' learning [28, 42, 57, 80]. CoPs share three main characteristics: *community, domain, and practice* [80]. The *community* is where members build relationships and engage in learning. Our WhatsApp group served this purpose. The community identity is strongly tied to its members' shared *domain* of interest. In our study, this was gendered health and wellbeing. The practice helps members compile a shared set of resources to tackle the problems they face like, in our study, taboo [21, 44, 83].

Research in HCI has applied LPP as a lens to understand online CoPs in a variety of domains (*e.g.,* [25, 29, 41, 56]). Holikatti et al. studied Facebook groups with AirBnB hosts to highlight how these hosts leveraged digital information resources shared and generated by active members of these communities towards learning to become expert hosts [27]. Bryant et al. studied collaborators on Wikipedia to uncover changing responsibilities as contributors advanced from peripheral to central roles in the community [11]. Closer to the Indian healthcare context, Ismail and Kumar investigated overlapping CoPs that are an integral part of frontline health ecologies [29]. In using this LPP lens that allows us to better understand situated learning practices, we align with Kumar et al.'s proposal to use a learning-centered approach to addressing challenges around gendered health and wellbeing [38]. We recognize 'peripheral' members of the community as those who participate less, while the 'core' members include those able to converse on difficult topics with clarity and comfort, offering perspectives that question taboos directly.

# 3 METHODS

Our Georgia Tech Institutional Review Board-approved research took place between August 2020 and March 2021. Our research goal was to understand how we might create and curate online safe spaces that afford room to converse around culturally taboo health topics, and we specifically targeted Indian women and gender minorities. Here we drew on prior research to define safe spaces as spaces where people feel protected from harassment and stigmatization [6], and comfortable engaging in self-disclosure, potentially aided by affordances such as anonymity [70]. Below we discuss the stages of research design, participant recruitment, data collection, and data analysis that led to this paper.

### 3.1 Research Design

We were approached by a non-profit Partner Health Organization (PHO) that was aiming to address gender inequities in healthcare adoption by creating products and services directed at women of Indian origin. Among other services, the PHO moderated online presence on popular social media channels where they sought to share content, facilitate care, and build community around stigmatized health topics. We had multiple preliminary and in-depth conversations with the PHO leadership around what they might do to remove barriers to open discussions. PHO was already actively nurturing two communities, one on Facebook Groups (with ~600 members) and another on a public Instagram profile (with ~20,000 followers). Our PHO partners (and we) were keen to also learn how community building could potentially take place on WhatsApp groups and what information-sharing affordances it could offer, particularly given the informality of the platform that could make it a more suitable space for conversations to take place [63].

The choice of WhatsApp was predominantly motivated by the widespread adoption of the platform among Indians—India had a reported user base of at least 459 million active users in 2021 [50]. Prior research has also emphasized the importance of examining the affordances of WhatsApp as a 'technology of life' across the Global South [16], and particularly in the context of online health and peer-support [34, 81, 82]. WhatsApp's affordances in its ease of use for a diversity of users, and for family and community groups, were prime considerations. The platform is commonly used for informal chat messaging, providing a low-stakes environment for users to ask questions and discuss taboo topics in everyday language. Further, users can participate in WhatsApp group discussions with some degree of anonymity, *i.e.* they can use the platform without having their messages and interactions be strongly connected to a profile with highly identifiable information, such as full name, location, mutual friends, and personal photos. The only personally identifiable information one must reveal on a WhatsApp group is one's phone number, although users can elect to make usernames and profile pictures visible as well.

### 3.2 Participant Recruitment (I)

Contributing members of the PHO's existing communities on Facebook and Instagram included women and gender minorities, although there were no strict guidelines promoting participation from across genders. We circulated a survey in these communities to recruit participants to participate in a research study on engaging with taboo health topics, asking respondents for their age, gender, experiences around health information-seeking, and contact information where they could be reached. We received 80 responses in total, of which 35 were complete. We invited all 35 to be a part of our study. We communicated the purpose of our research study in an email, explicitly stating the goal of creating a safe space for communication on taboo health topics, along with a link to join a new WhatsApp group where these discussions would be taking place. We informed the participants that accepting the invitation and joining—and staying on—the group would serve as their consent to participate in our research. This was also a benefit of creating a new space with only those who had given informed consent prior to all participation, rather than engaging in larger online communities. The participants were not paid for their participation.

### 3.3 Data Collection

PHO and we came to a mutual understanding that our research team would set up a curated safe space on WhatsApp, and then PHO would take over the curation responsibilities once the study was completed, so we set up a WhatsApp group with PHO founders (4), members of the research team (3), and all recruited participants. We designated one author the group moderator and point of contact in the group. All moderation decisions were taken collectively by the research team, though the output responses were only sent from the moderator's account. When all consenting participants had joined the community, the moderator sent out an introductory message explaining the intent of the group: *"We want this to be a safe space where you can discuss questions related to your health that you might have been too embarrassed or hesitant to share otherwise."*, and referenced the community's connection to PHO to instill trust among the members. The moderator added that PHO and our research team would co-design and share discussion prompts at regular intervals to facilitate discussion, and that the participants were encouraged to talk about any topic of their choice within the group. These prompts, as illustrated below, touched on various topics that are widely considered taboo topics in the Indian cultural context. There were seven prompts on topics including fitness and technology, mental health, abusive relationships, diets and skincare, body image, menstruation, and sexual wellness (see Fig 1). The researchers and PHO founders discussed and iterated on the content of the prompts before they were shared with the participants. The moderator posted discussion prompts in the form of images and captions to complement the images, releasing these on Tuesdays and Thursdays over a span of two weeks. Overall, there were 458 messages sent in the period starting with the inception of the group and ending when the conversations were no longer driven by the prompts the research team had generated.

### 3.4 Participant Recruitment (II)

At the end of two weeks, we distributed an online survey to our participants, to make sure that they had room to share any feedback they wanted regarding their experience. This survey contained open-ended questions aimed at understanding whether community members saw value in participating in the group, and what could be improved in that regard. When this did not get many responses, it motivated us to recruit participants for in-depth semi-structured interviews that would help us understand the diverse experiences around participating in this group, and how safe of a space it was perceived to be. We recruited 10 members who participated in the community to partake in semi-structured virtual interviews; we reached out to members who had varying levels of participation in the community, making sure to include those who were actively engaging in conversations on the group as well as those who had minimal engagement on the group. We stopped recruiting additional interview participants when we reached saturation in our data. All interviews were 40-60 minutes long and conducted in English, which was the language of choice for participants, as

**Table 1: A table summarizing the demographics of interview participants. All demographics were self-reported by the participants. "PHO1" refers to our interview with one of the co-founders of the PHO.**

| Participant | Age | Gender | Preferred Pronouns | Location/Country |
|---|---|---|---|---|
| P1 | 25 | Female | She/Her, They/Them | Urban/India |
| P2 | 25 | Female | She/Her | Urban/India |
| P3 | 22 | Gender Questioning | She/Her, They/Them | Urban/India |
| P4 | 20 | Female | She/Her | Suburban/India |
| P5 | 25 | Female | She/Her | Urban/India |
| P6 | 25 | Genderqueer | She/Her, They/Them | Suburban/India |
| P7 | 20 | Female | They/Them | Urban/Mauritius |
| P8 | 22 | Female | She/Her | Urban/India |
| P9 | 20 | Non-Binary Trans | They/Them, He/Him | Suburban/India |
| P10 | 24 | Female | She/Her | Urban/India |
| PHO1 | 27 | Female | She/Her | Urban/United States |

the interactions were also in English. The interview protocol focused on different aspects of the community, with questions around online safe spaces generally, comfort levels around sharing and consuming information on the group, and cultural taboos relating to personal backgrounds and experiences. All interviews took place after informed consent had been procured. All participants were of Indian origin and nine of the 10 resided in India, with one residing in Mauritius. Participant demographics are detailed in Table 1. We additionally conducted a detailed interview with one of PHO's co-founders to understand their perspective on the engagement of the participants, and how the curation of the venue had contributed towards enabling conversations in general.

## 3.5 Data Analysis

We analyzed two sets of data, that which was generated via discussion prompts and that which we collected via interviews. Our team collectively open-coded all data and iteratively created axial codes to identify patterns of engagement around the different topics [53]. These included codes such as 'no fear of judgement', 'acknowledgement of taboo' and 'validity through similar lived experience'. The codes were discussed in depth and agreed upon by all authors. We present the insights in our findings, and identify the sources of data as WhatsApp group discussions or interviews where relevant.

## 3.6 Positionality

Three of four authors are of Indian origin, while the fourth is Asian American. Three of four authors identify as women and one as a man. All authors have participated in conversations and contexts impacted by cultural taboos and the stigmatization of topics around gendered health and wellbeing. Although the PHO founders are not co-authors and did not participate in the data collection and/or analysis, we held regular discussions with them to share our research findings and updates. Authors bring a feminist grounding to this research and conducted this study with a view to uncovering safe online communication practices that could subsequently be introduced in the PHO's online communications.

# 4 FINDINGS

We use the concept of legitimate peripheral participation (LPP) [42] to unpack our participants' situated learning experiences as a part of the WhatsApp group. Recognizing the role the WhatsApp group played as a space to engage constructively on taboo topics in health, we first present how the group members leveraged these new audiences they had access to inside the group to cultivate a sense of community and common cause within it. Then we present how community members, across different levels of participation in the community, learned to question the origins of this taboo and the sociocultural forces that upheld them. Finally, we describe how the participants began to translate these learnings across different taboo contexts and bring change in their social networks beyond this safe space.

## 4.1 Leveraging New Audiences and Support Systems

Participation in the WhatsApp group allowed community members to leverage new audiences of like-minded individuals as they shared their experiences with taboo health topics in their day-to-day lives. Not having family members and close contacts in the group allowed for members to express and reflect on how cultural taboos hindered open communication with existing friends and family. Here, we present how this community created a conducive atmosphere for its members to engage in learning experiences around taboo topics.

*4.1.1 Foregrounding open communication in the WhatsApp group to address the lack of communication among close circles.* We had designed our discussion prompts to encourage conversations on topics considered culturally taboo such as menstruation, sexual and mental health, and abusive relationships. As PHO1 explained, the original intent of the group was to *"give users a safe space space*


**Figure 1: Examples of the visuals used to display discussion prompts posted in the WhatsApp group.**

*to share their thoughts and feelings"* to make sure that community members were getting their health questions answered and had the opportunity to talk to their peers and verified health professionals if needed. Offering this space, PHO1 reported, would allow them (PHO) to better tailor their offerings as an organization to the needs of their users.

Even as we envisioned this community as a safe space for discussions of taboo topics at the outset, safety as experienced by the community members had to be socially constructed. Interviewees expressed that all community members in the WhatsApp group maintained an open, non-judgmental environment, establishing community customs that allowed others to be vulnerable in the group and lean into new support systems. Members of the group set the tone for participants to express themselves without the fear of potentially hurtful comments by being receptive and helpful to any stories or questions shared. P6 reiterated this when she explained how she decided she could share in the WhatsApp group:

> *"There was one person who started telling her story... everybody was, like, really appreciating that she told this out, and they were helping her... they were not giving any rude comments or anything. So that will say, okay, so I can tell my story here, it won't be a big deal. They wouldn't be mean or... take it in a wrong way."* (P6)

The interactions between participants also suggested that the group's overall social dynamic was approachable and encouraging. P5 attested, *"it's fun to know that there are a lot of people who think exactly like us, they might be from different countries or communit[ies] altogether. But I think a lot of things are really common. The human emotions are very common everywhere. But that is something that I've felt like, I've never felt unsafe ... And I felt more encouraged."* When talking about the exchange of comments in the group, P3 commented on the fact that the participants spoke from their lived experience and did not force opinions on each other:

> *"... there was nothing as of like, 'Okay, this is work[ing] for me. So it will work for you. You do this.'... It was nothing as of like, pushing. It's not like, 'Hey, you are not trying enough. You are not trying enough to get out of this.' "* (P3)

That participants never claimed that their advice would work for all members of the group reflects the levels of respect and care that participants brought to the group. By offering suggestions to the group without assuming that their response could be the only "correct" answer, members of the WhatsApp group ensured it stayed open to embracing new audiences and support systems.

Participants' engagement with these discussion prompts on WhatsApp, as a result, indicated an openness to sharing experiences and talking about these topics with the other members of the community. They used the group to talk about fears and insecurities, recognizing the community's collective identity as a judgement-free zone. One community member shared details about their long-term anxiety disorder and how they were afraid to approach therapists for fear of being judged. Similarly, another community member shared an intimate detail with the group, disclosing:

> *"I haven't come to terms with my diagnosis. I want to normalise it but my home isn't a particularly safe space to discuss mental health and I'd be very unsettled if they choose to reject the diagnosis. So currently I'm scared. To even say it aloud."* (Community Member)

Such conversations served not only to seek solidarity from the community, but also to give voice to experiences that are culturally taboo, with participants mentioning few avenues for judgement-free disclosure with otherwise close connections like family and friends. We found that several community members reported similar experiences of not having support from their family and friends to talk openly outside of the WhatsApp group. P9 worded this as, *"there is a need for a community outside a family because family fails to be the community."* Participants reported limited opportunities in their daily lives to engage in meaningful conversations about taboo health topics, even among peers. As P6 described it:

> *"So one thing is, still in India, nobody talks about women's health, as it needs to be felt. Like nobody talks about vaccination, nobody talks about hygiene, nobody talks about vaginal health, or any health for that matter... Even*

> *within close kin, even my close friends, we don't talk very seriously about sanitary napkins or menstrual cups or anything."* (P6)

Another participant (P1) who was a mental health practitioner expressed surprise about the fact that the taboo surrounding certain physical health conditions persisted among her own professional network, all of whom had a background in psychology and openly talked about mental health. This reflection highlighted the persistence and internalization of taboo that were made visible to P1 as a result of the engagement within this community.

Having limited trust and freedom to discuss these topics at home or at work, many participants reported the need to seek information confidentially, distanced from their parents' and friends' knowledge, which pressured some participants to rely on online platforms as a more accessible resource for information instead. P3 described an experience dealing with this taboo with other women in society:

> *"People really get uncomfortable. Like, even if I say 'periods' out loud in public, even if there are like girls… many of them get flustered. Even if this is the normal thing. So like, that is a reason I go for online search, like online platforms."* (P3)

Members cited this inability to have conversations externally as motivation to purposefully use the WhatsApp group as a place where communication was prioritized and valued. P1 admitted, *"I don't talk about these kinds of things with most people in my life. So it was nice to have [this] place."* Ultimately, this community provided a new audience, unburdened by taboo, where the community members had the freedom—as well as the ability to learn—to engage in conversations on taboo health topics.

*4.1.2 Balancing anonymity and trust towards a safe space.* Across interviews, participants often cited "anonymity" among group members as a key reason behind why they felt like they could communicate honestly and talk without hesitation about taboo topics in the WhatsApp group. Going by formal definitions of anonymity [51], participants were not truly anonymous—members of the WhatsApp group could see several pieces of personal information about other members, including one's name, phone number, and profile picture. Even so, despite having one's personally identifiable information available to other members, many participants considered themselves as effectively "anonymous", revealing how their varying definitions of anonymity informed their expectations and activity in the group. WhatsApp's design allows users to know if any of their contacts are also part of any of their group chats, and our users ostensibly confirmed that their family and friends were not a part of the group themselves. As a result, participants were less concerned about the technicalities involving anonymity and reported that they were more open to sharing about personal and sensitive topics in the group. P5 noted that the community served as a safe space because of a balance between anonymity and trust, explaining, *"I think an online safe space will be a community where people don't really know much about each other, but somehow they can trust them."*

We also found that other personal identifiers, like phone numbers and names, that were visible to all members were not considered as much a deterrent as having close personal networks in the group. Moreover, some group members even shared personal identifiers beyond their basic information in hopes to fully empathize with the group; these identifiers included full names, cities of residence, and clearly identifiable photographs. This behavior suggests that being identified seemed to be less of a concern to members, provided that the group members believed that the group did not consist of family members or friends. With regard to this alone, participants preferred disclosing their personal experiences to strangers over acquaintances. P5 pointed out how the absence of acquaintances in the group allowed her to act more freely: *"There is no judgement that is going to come my way. There's no one who's going to tell me, 'Oh, I saw you commenting on this, or I saw you share about this.' "* P7 hinted at the magnitude of consequences if the WhatsApp group did consist of people from her close circles, stating, *"Family in [anonymized] platform - I think that is terrifying for me."* This participant also elaborated on how being in a group with people who did not know each other personally enabled participants to act without the fear of social consequences:

> *"I think when you're in a group of strangers, you're a little more free, freer compared to when you are in a group with known people because you don't really care, right? Whether they judge you or not."* (P7)

P10 expressed analogous views and added that such a group allowed her to be more authentic. This freedom afforded by being in a group of perceived strangers indicates how this level of anonymity gave way for participants to take part in group conversations more easily.

*4.1.3 Cultivating group solidarity.* The WhatsApp group acted as a conducive space for participants to connect over similar backgrounds and societal constraints, inviting both peripheral and core members to engage in the community under a unified identity. Undeterred by varied geographical locations, participants drew parallels to others' experiences and took comfort in identifying other members who shared similar attitudes towards confronting taboo. These actions in turn cultivated group solidarity. P9 spoke to how this shared mentality characterized the community, saying, *"it automatically becomes a safe space to discuss it (mental health) because you're all in the same… head space."* Several participants voiced their realization that they were not alone in their struggles, after they had read the messages exchanged in the group. P3 gave an account of how the group helped validate her feelings of uncertainty before she had realized that other members in the group had related experiences:

> *"It was good, like knowing people share the same experience, because at times, you feel very alone or like, 'Am I the only one confused?'… Or like, 'I'm the only one feeling like this?" But… there were people, when we talked in the community, we shared similar experiences with. It feels good. It is like common solidarity."* (P3)

Supported by the "common solidarity" of the group, participants did not hesitate to reach out to other individuals in the group and find new support systems. We discovered that two of our interviewees had formed a deeper friendship with each other outside of the group, which was a relationship that had been initiated when P5 messaged P2 after reading her story in the WhatsApp group:

> *"I sort of resonated with that, because I had gone through similar situation of few months ago. By just reading, I could understand the pain…I just ended up texting her saying… 'I stay here, it will be great if you feel you want to talk to anyone, I could totally be with you.' And I ended up becoming very good friends with her."* (P5)

The deeper connections established within the online safe space corroborate similar findings in the construction of a physical safe space [77]. P2 and P5 used the community to find support in each other, aligning with the idea that a safe space can be defined by a place where someone can expect to find the company of other women and gender minorities for the purpose of solidarity. Ultimately, this community served as a space where members expressed comfort around opening up about taboo topics, by learning to give voice to previous taboo and under-discussed problems they had experienced. For more peripheral participants, who were less actively involved in group conversations, the group served as a space where they could learn to normalize these conversations on taboo topics.

## 4.2 Questioning Traditional Systems and Social Structures

Stigma and taboos generally coexist as they serve to reinforce traditional social rules around power relationships, particularly around gendered health and wellbeing in India [38]. In this section, our findings shed light on how the WhatsApp community became a space to break taboos around certain topics by encouraging direct engagement with them, and how learning to navigate these cultural rules outside of the safe space comprised a concrete step towards breaking taboos within the community members' personal lives.

*4.2.1 Unpacking the origins of taboos and recognizing who upholds taboos.* Several community members took on deeper examinations of the structures upholding taboo over the course of their participation in the group. Some members entered the group ready to instigate discussion around taboos, such as one member who sent in their first message, *"Hi…I am new to this group…just one question (.) (E)lders tell (us) to be diplomatic and not be outspoken…how can we decide what is right?"* We found that participants' questioning of taboos also spanned taboos around discussing gender roles, sexism, and the caste system in India, which often intersect in the ways they impose rules that stigmatize gendered health and wellbeing. For example, when asked about her thoughts on India's patriarchal society, P2 shared more of her feelings tied to navigating the balance between Indian culture, discrimination, and taboos around discussing certain topics:

> *"…Obviously we are Indians. And we know how these things work here. I don't know where to start, but you know, menstruating, marriage, then whether it's girl child or boy child, whether it's caste system or not, etc. And I sometimes think… 'What's the reason behind this stigma? Why is stigma attached to all of this?' "* (P2)

Extending this line of thought, other participants also questioned how identity-based discrimination translated across geographical boundaries within India, noting that there were different intensities of taboos around certain topics in different regions of the country.

With community members becoming more comfortable discussing culturally taboo topics on the WhatsApp group, conversations evolved to examine the root causes of taboos and why it is upheld in the first place. A few participants pointed to the idea that taboos were anchored by the older generation, citing their grandparents and older generations as people who, as P2 put it, are *"…just following it. They don't know the logic behind it. And they really do not want to go into science and technology, they just want to follow blindly."* Participants also called out social practices that they disagreed with and used language that denoted a clear separation between those who uphold taboos and themselves. Noting a changing trend among the younger generation, with an active opposition to this gendered discrimination, P2 expressed being met with dislike from their older family members who would have preferred to uphold historically discriminatory gender norms, and the taboos around discussing them. Another participant explained the difficulties of communicating with those who uphold such discrimination and taboos, attesting:

> *"People can't really accept the fact that you can be an adult at a certain age and want to have your own lifestyle and have a partner of your own choice … This is the category who will never understand."* (P5)

In such situations where communication within families and personal networks broke down, online spaces like the WhatsApp group provided some avenues for commiseration, solidarity, and support.

The community space that functioned as a means of learning also, by extension, functioned as a means for unlearning. Cultural values are predominantly perpetuated across generations within households. Taboos and stigma follow a similar path. Such mechanisms of information transfer carry with them the risks of misinformation encoded as cultural knowledge. Multiple community members described experiences where they recognized misinformation that perpetuated taboos around certain products or behaviors, and shared their observations with the group. Responding to conversations around menstrual health, P1 recounted:

> *"I did some research and decided to start using tampons. When I told my mom she was absolutely against it. She told me using a tampon is dangerous, I would lose my virginity and I could even die. I was flabbergasted by this. My mom is a well-educated, urban woman. She's a college professor with a PhD in management. I was absolutely not expecting her to say such things and to be SO misinformed."* (P1)

Similarly reflecting on their interactions within their homes, one WhatsApp community member described interactions with their family members that they now understood as "emotional abuse." Realizing that they had normalized these experiences growing up, and consequently internalized hate towards their own bodies, they explained the challenges to unlearning these ideas as: *"Well, now that I understand, it's harder to deal with because I'm someone who cares about the other people's opinions a lot, especially people I love and care about."* Here, we draw attention to the implication that full participation in the group not only involved sharing incredibly vulnerable experiences, but also expressing solidarity and providing validation to those who shared their experiences, ensuring that the

community served its purpose. In response to the message about emotional abuse, P1 responded:

> *"I'm sorry th(a)t you're going through this. It's okay to recognise your parents' toxic behaviour, it doesn't make you ungrateful or a bad person. Anyone can be toxic and manipulative - even parents and doctors. I'm glad you have a supportive friend group."* (P1)

*4.2.2 Exploring gender identity in the safe space.* The WhatsApp group served as a resource to leverage as community members experienced discrimination and taboo around their gender identity in their everyday lives. The safety and lack of judgement afforded by the space allowed them to explore their gender freely in this digital world, in contrast to their physical world. P9, for example, set an example on the group by introducing themselves with their pronouns soon after they joined it. This made space for other community members to also include their pronouns in their own introductions. Further, P9 was vocal about their queer identity on the group, describing not only their challenges figuring out a feasible path for themselves but also how they motivate themselves to persist as:

> *"I have a toxic relationship w my parents…Plus my queerness isn't acceptable to them. Intention to leave exists but it's difficult. I'm still figuring how but I am hopeful and wohoooo can't wait to redefine what 'family' means to me. I have empathy because their childhood was just as traumatic but probably I can love them only from a distance. I'm determined to be the 'Cycle-breaker' :)"* (P9)

Conversations about queer gender identities are still taboo in many Indian cultures and directly affected P9's ability to explore their own identity. The discussion prompt on 'body image' within this safe space allowed P9 to contribute to the community in two key ways: adding voice to a taboo topic through their lived experience and thereby making space for others, and also seeking support from the group as they took steps towards overcoming their difficulties. An excerpt from P9's response to the discussion prompt, where they point out the *'idea of beauty we are sold'*—alluding to traditional structures upholding gendered norms and standards of beauty outside of the home—read:

> *"I have neglected my body a lot. I don't pay attention to it…This is telling of my relationship with my body—it is non existent. So I guess I don't know about body 'image'. I don't 'love' my body but I'm very ok w it. I think maybe too ok with it…Alsoooo, body hair. I was someone who completely was persistent about removing them time and again because that's the idea of beauty we are sold. I've grown tremendously in the past couple years - accepted how real bodies look like away from male gaze and omg there's so much fun in staying real and being seen honestly :)…Having said that, I know dysphmoria and dysphoria are very real things and lots of empathy and warmth to anybody here who is struggling with it."* (P9)

Building on this response, other community members were emboldened to tell their stories of body image issues while growing up, pointing out how they learned to question the stigma associate with some aspects of their bodies and how they still sometimes struggle with these issues. A key distinction these stories brought up was around the role external actors, like traditional media, social media, and popular culture played in perpetuating gender norms and other bodily stigmatizations. P1, who expressed having had eating disorders in the past, reflected on how these representations affected her during puberty as *"There was no explanation in a span of a month I went from having shampoo commercial hair to looking like Anne Hathaway in the first half of the princess diaries movie."* P1 also shared images of themselves at different ages to support their reflections. The community response to these stories included words of affirmation, and expressions of solidarity.

Questioning, and drawing attention to, instances that perpetuate taboos around identity-based dimensions like gender was one of the first steps towards instigating changes that mitigated said taboos. In the interviews, some participants shared their experiences, both positive and negative, with questioning taboos around gender identity among their social networks. They recounted how transphobic comments from their friends were being passed off as humor, and how there needed to be societal shifts around perceptions of gender in India to be more inclusive. P7 explained:

> *"I just talked about respecting women and not calling transgenders by different names…but people had their opinion, and said, no, we will call this way, it's just a joke. So I was really angry, because it shouldn't be that way…I thought India needs to make a community where we talk about this."* (P7)

As a potential way forward to more inclusivity, participants gave examples of being part of online communities that adhere to guidelines of acceptance and respect regardless of gender identity. Taboos around non-cisgender identities may have led to marginalization of these communities. P2 proposed that by questioning and explicitly breaking the taboos, *"I think slowly people are understanding that they're a community too and they deserve a voice."*

## 4.3 Socially Constructing a Shared Community Knowledge

We now shift attention to the community members' experiences in the WhatsApp group, both as active participants and as more peripheral lurkers, as they internalized their learnings from their engagement in the group and sought to translate this knowledge into their other walks of life. In particular, we report on how the community members internalized strategies to engage in discussions on taboo topics constructively, and finally present how this collective community knowledge acted as an ideal that the participants used to bring about change in their other social networks.

*4.3.1 Internalizing strategies to engage with taboos.* The participants utilized the group as an opportunity to learn about and confront taboos on their own terms. Many participants felt comfortable sharing their opinions and feelings about the topics of discussion, regardless of whether they were coming into the group highly knowledgeable on the topics or coming into it with preliminary thoughts. This made space for peripheral lurkers to participate in the community too, as this dialogue served as an approachable guide for all members to recognize internalized taboos and figure

out strategies to overcome it. Participants learned various ways to process their emotions by reading multiple perspectives of how the other members responded to navigating taboos. P2 talked about the benefit of being able to see other people's thought processes with respect to these issues:

> *"When somebody asks something [in the WhatsApp group], then I can like really observe things [like] what they're saying, or how they are going through the issues, how they're solving them, etc, etc. So, I think I just want to know what people think."* (P2)

P2 spoke about how the WhatsApp group gave her the space to contextualize gendered health issues in India, providing her a place where *"you can think, you can ponder over the things, and you can research."* As P2 explained further, the mere access to active discussion of taboo topics allowed participants to find clarity on varying aspects of how others were communicating about and confronting taboos in their own lives. By providing this open space to think, peripheral members were able to discern meaning and create learning moments from the thoughts, opinions, and responses that resonated most with them.

Our interviews also revealed that some participants were exposed to completely new topics in the group, with conversations—that they participated in or merely witnessed—becoming learning experiences towards a shared community knowledge. For instance, P5 shared her experience of understanding how others benefited from going through therapy:

> *"A lot of times, I had no idea about such issues…Now I'm understanding from a very good point of view, a lot of these women have taken therapy. So they share their experience of you know, how whatever they were feeling was valid, like how their therapy sessions have actually helped them."* (P5)

We also found that a handful of participants found the group helpful with respect to learning about the universal aspects of engaging with taboos. P8, who was of Indian origin and lived in Mauritius, explained that she still learned about others' experiences with taboos in India though she did not relate to them entirely.

Recognizing the learning opportunities these moments create, PHO1 reflected on how she, and the other members of the PHO, approached conversations on typically taboo topics, both in the WhatsApp space and in their other outreach activities. She noted that on topics like sexual health, for example, she was wary that the group members would get uncomfortable talking about their experiences, and the PHO's approach was:

> *"We just try to lead with example there, where we shared the most…difficult experiences we've had or we've heard about. So, we do a bit of prep for those topics where we feel like we're going to bring something up that will open up, and…make our audience feel comfortable to share things, versus asking them to go first and start talking about it."* (PHO1)

Such strategies for community engagement afforded not only a space for discussion and knowledge exchange, but also learning opportunities on how to communicate experiences with taboo topics where no social engagement rules existed in the first place.

*4.3.2 Continuing the dialogue and creating change beyond the group.* With taboo topics being openly discussed in the group, many participants sought to continue this dialogue to drive changes in attitudes of individuals outside the group in hopes of creating long-term social change in India. P5 described the current landscape of stereotypes against women and spoke to how the presence of this dialogue could change it:

> *"They always assume us to be silenced, they always assume us to you know, not have a voice or opinion …For them to see a woman you know, doing things of her own choice and prioritizing her career, her lifestyles, is something which nobody likes. They want us to be one of those typical traditional housewives and settle down and have babies and not have a life of our own. And most of us, most of us really want to break that ideology altogether.* (P5)

This statement addresses the idea that many women in India already have an interest in wanting to take action to break taboos, and indicated that the WhatsApp group offered an opportunity to build community as well as community knowledge towards that goal. P1 gave a testament to this, as she embraced the dialogue that the community initiated and advocated for more opportunities like it: *"When we start talking about physical health, reproductive health, mental health, the lesser the taboo, it becomes, right? And so for me, I'm always looking for like, opportunities which can walk in this direction."* Participants were motivated to pass their newly gained knowledge on to others, based on how helpful they had found their group experience to be. P6 shed light on the knowledge she gained by being a part of the WhatsApp community and how she felt motivated to continue helping others:

> *"Okay, so, before coming to this [group], I didn't know that there are apps to help women with periods and everything. And honestly I came to know after this app, so it was really helping me. And so if I know some things that can help in some other aspect, I really do want to help people know about it."* (P6)

Along these lines, a few participants equated the simple act of being a member in the WhatsApp group as an act of resistance towards breaking down taboos in India. Participants' language around contributing to group conversation, especially around sensitive topics, revealed that some participants saw the group as a form of activism and some saw it as a form of education. P2 also spoke about her motivation to change the narrative around women's issues around the world stating, *"It's not like nationalism or patriotism. It's like, I have to work for the humanity."*

Considering the long-term goals such dialogue could achieve, one participant even suggested the creation of such dialogue for certain groups directly involved in upholding taboos. P5 suggested a shift in responsibility back on to the older generation, demonstrating a shift in thinking about how participants saw their experience in the WhatsApp group being applicable in other contexts. She said:

> *"The younger audience is active now, the younger audience can discuss things. But I think the people of our parents, age 50 to 55 - the people who are the people making decisions about all this - I think they need to bring a mindset shift…I think the communication should*

> *flow not from youngsters to them, but from them to youngsters. I think that sort of environment needs to be created."* (P5)

The WhatsApp group has remained an active space for engagement even since the research team sunset the discussion prompt and interview phases of the study. We asked PHO1 what role she, on behalf of the PHO, saw the community playing in the long term, potentially aligning with their other organizational outreach approaches. PHO1 noted that WhatsApp allowed for more connected and intimate conversations among community members, while also serving as an easy resource for the community to leverage where necessary. Recounting a recent incident, she explained how a member sought community guidance on dealing with domestic abuse on the group, and received responses with resources and expressions of solidarity. Summarizing the role the WhatsApp community would play in the future, PHO1 said:

> *"They still consider this to be like a space where they can get some of their questions answered, especially related to like women's health and wellbeing… The purpose was never to build a group that is bombarding with questions and answers, nobody likes that. You want to make this a resource [which] you can turn to when you deem it necessary, but it's not something that's constantly buzzing and creating noise in your life. And I think that's the purpose of the WhatsApp group."* (PHO1)

Through the collective effort of building community knowledge, participants were able to identify their collective power as a group to educate and inform, and they felt empowered that the group fostered their own personal learning. Participants arrived at the realization that their perspectives of their own lived experiences could be valuable to other members of the community. These attributes of the WhatsApp group corroborate Naseem et al.'s discussion of connectedness as a design choice in safe spaces for peer support [60], as connectedness empowers marginalized communities by allowing them to belong to a larger community of peers and identify with a collective voice.

# 5 DISCUSSION

Our findings highlighted the ways in which our WhatsApp community members engaged with each other around and beyond our discussion prompts about gendered and taboo health topics. Anonymity and non-judgement allowed the community members to express themselves freely—an affordance unlike the participants' regular walks of life where taboos restrict open conversations on topics such as menstrual health or mental health. The WhatsApp channel also allowed for introspection and reflection around how such taboos manifest in participants' everyday lives, and how people around them tacitly and explicitly perpetuate them. In addition, the conversations in the group allowed the members of the community to gain awareness and develop a vocabulary to talk about these topics with others outside this space and create a change in their social worlds. In summary, our work surfaced how the members of the community problematized gendered and taboo health topics in their everyday lives, and shared information resources, collectively uncovering ways to address communication on such topics.

## 5.1 Learning through Participation

Research on gendered health and wellbeing by Kumar et al. pushes for moving beyond regarding taboo topics as solvable through information access alone [38]. Authors posit that for overcoming taboos, further scaffolding is required in support of *learning* to respond to this information, proposing that research should look into creating scaffolding mechanisms such as learning spaces towards improving overall health and wellbeing. The authors particularly highlight research gaps in understanding how informal and situated learning can scaffold how people engage with information about taboo topics [38]. Our paper contributes towards this research gap, and below we highlight the ways that our research participants had scaffolded *situated learning* experiences within their *community of practice* [42], to provide insights that might shape the design of future learning interventions around taboo health topics. Seen through the lens of Legitimate Peripheral Participation [42], our findings highlighted how the community members used the WhatsApp group as a space for situated and social learning. Where discussion prompts served to initiate discussions around typically taboo topics, our participants further used the community to create and enshrine group solidarity and create a safe learning environment for everyone. Core members comprised of individuals comfortable sharing their lived experiences and knowledge around taboo health topics, with peripheral members picking up vocabulary and ways of talking about such topics through their presence in the group.

In taboo health contexts, information about health is frequently challenging to access and absorb, potentially leading to extended periods of misunderstanding around health issues and missed opportunities for improved quality of life. As outlined in our review of the related work, this has been addressed in different ways in HCI research so far through interventions addressing health education (*e.g.,* [30, 69]) and information access (*e.g.,* [39, 55, 61]). Drawing on Kumar et al.'s [38] call for a shift in perspective from one of increasing information access to designing scaffolding measures to allow for learning, we consider how taboos around health could be addressed through learning-focused interventions. One example of an initiative centered around formal learning that chose to work *around* taboos in the Indian context was TeachAIDS [74]. The TeachAIDS program effectively leveraged cultural insights, learning theory, and technology affordances to provide comprehensive HIV education—all while circumventing taboos. TeachAIDS, which targeted urban Indian youth, utilized a combination of different cultural metaphors, such as common depictions of intimacy from Bollywood, in an effort to sidestep taboos while prioritizing the uptake of the curriculum. What our work highlights, however, is that sidestepping taboos in formal learning environments is but the first step to initiating conversations. Upholding taboos is necessarily a social and cultural process, and consequently, technology-based learning interventions need to be targeted towards aiding the creation of new social processes to dismantle them. Through our study, we created one such community learning environment where women and gender minorities had a safe space to engage in informal learning with their peers.

In seminal work on situated learning, Lave and Wenger argue that learning is a necessarily social practice [42]. With taboos hindering open conversations around gendered health and wellbeing topics, social learning becomes untenable. By constructing a safe space for engagement, our WhatsApp community created an environment in which social learning could take place. Our discussion prompts—one of the only structured learning activities in the community—explicitly addressed a variety of taboo topics including mental and reproductive health, and provided the community members both the opportunity and the vocabulary to talk about these topics. In the spirit of peripheral participation, we note that members who were uncomfortable sharing their thoughts, ideas, and experiences with these topics were still privy to others' interactions on these topics. Our findings highlighted that even such passive participation in conversations—observing rather than directly participating—created learning moments for such members to learn both the vocabulary and the approaches to having healthy interactions that break through taboos. Prior research on ways to overcome taboos around sensitive topics has highlighted the value of direct engagement with the topic in social settings [3, 23]. Our findings indicate, and we propose as design takeaways, the need to scaffold this engagement through social learning pathways. Our community members found support in reflecting on and questioning their assumptions about the discussion prompts as they observed the core community members express themselves, learning ways of knowing and engaging along the way. Future learning-focused interventions for dismantling taboos around health-related topics could benefit from the creation of safe spaces—even digital ones on platforms like WhatsApp and Telegram—that provide informal learning opportunities.

## 5.2 Anonymity in Learning Spaces

The relative anonymity of the community afforded a learning space with the freedom to fail or ask basic questions without judgement or other negative social ramifications. The solidarity that developed in the group had the effect of making the space one where our participants could talk about their assumptions and internalized taboos and be met with care and support. This was in stark contrast to our participants' experiences within the home and their other social spaces. Schools, for example, had such strong taboos around health topics like sexual health and menstrual health that successful educational approaches required sidestepping taboos to be built into the curriculum [74]. A caring environment to unlearn and relearn ways to engage, then, allowed our participants to form connections with community members outside the group, and to learn to take these new learnings and learning methodologies to their other social spaces.

A primary takeaway in this regard is an understanding of the trade-offs surrounding anonymity and social learning in such online communities. Where anonymity—especially in online communities—could serve to foster mistrust, we found that anonymity in moderated learning spaces around taboos could serve to unshackle individuals to have meaningful engagement without fear of judgement. Younas et al. [84] contributed a similar finding based on their study of closed, moderated, women-only Facebook-groups in Pakistan, in which they found that women heavily relied on their ability to post anonymously and share in spaces that had little overlap with their real world social circles. In our study, community members only operated under partial anonymity, but it was sufficient enough for participants to still share deeply personal narratives and place trust in each other. A likely justification could be the translucence of identity: where the other learners are neither fully anonymous nor fully identifiable. Preferences surrounding anonymity were never explicitly discussed in the WhatsApp chat messages, so members did not have a standard baseline to follow around what information should or should not be shared. Prior work in HCI has studied anonymity and safety in digital safe spaces at length, including Naseem et al.'s [60] paper that contributes design guidelines centered around anonymity, such as a two pin privacy system and geographic isolation. At the intersection of learning and anonymity, what worked for our safe space was a middle ground of partial anonymity that allowed community members to not feel totally isolated on their learning journeys. Different situations require different levels of anonymity, and in the same vein, our research builds upon Naseem et al.'s [60] concept of connectedness as a framework for designing within patriarchal contexts. They argue that designing for connectedness can empower women by giving them access to spaces to share their voice, belong to a larger community, and find a collective voice. Social learning to an extent must happen within a community, but our study shows that anonymity actually facilitated participants' learning of how to talk through taboo. We propose that future research could unpack how layered anonymity could be better leveraged towards creating social learning opportunities.

# 6 LIMITATIONS AND FUTURE WORK

All participants demonstrated a reasonably high level of digital and language literacy, and all interviews were held in English. The individuals who did participate in our WhatsApp group had already indicated a level of interest in having conversations on gendered health topics, since they were already part of the PHO's online communities. Our findings might, therefore, not fully translate to communities with more divergent interests and more staunchly held attitudes around taboos. Though we interviewed participants until we achieved saturation in data, it is possible that there were participants' experiences that were not captured as a result of interviewing a subset of all community members. Finally, the minimal role of moderation in our community allowed us a window into how the community members socially constructed the sense of safety in the group. On the flip side, this approach was not designed to protect against bad actors—those exhibiting uncivility, unsafe behavior, and otherwise compromising the safety of the space. Future research could look into the boundaries between moderation and social construction of safety in such learning spaces.

# 7 CONCLUSION

Social and cultural taboos prevent individuals from engaging in meaningful conversations around gendered health and wellbeing. We considered the creation of safe spaces as a potential approach to address this communication gap by creating avenues for dialogue in aspirationally non-judgemental environments and by cultivating opportunities for learning to talk through taboo topics. Working

with a health organization and a WhatsApp group with 35 community members, we facilitated conversations on gendered health and wellbeing through periodic discussion prompts, and conducted semi-structured interviews with 10 participants about their experiences on the group. Recognizing the situated learning occurring within the group, we employed the lens of Legitimate Peripheral Participation to uncover how community members with varying levels of participation learned about taboo topics and worked through the taboos in the group [42]. We found that being part of a community of people willing to discuss taboo topics allowed the community members to have deep and meaningful engagement with the taboos they experienced in their daily lives. Such engagement also afforded community members an environment for self-introspection into, and critical questioning of, the sociocultural structures that introduced and upheld these taboos in their lives. Finally, we presented how the community members internalized strategies to unlearn their taboos and discussed how they would translate these learnings to other walks of their lives. Drawing on these findings, we discussed the value of learning through taboos instead of around them, as well as how scaffolding mechanisms such as informal and situated learning can be leveraged to better facilitate recipients' engagement with taboo health topics. We further contributed considerations around anonymity in social learning spaces and how it afforded our community the space to learn.

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