

Toward Understanding the Cultural Influences on Social Media Use of Middle Class Mothers in India

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ABSTRACT

This paper presents a preliminary investigation into the cultural influences on social media use of middle class mothers in India. We focus on the interplay of cultural beliefs, norms, and social and familial structures that shape their perceptions which in turn influence information sharing and seeking, and social capital building. We conducted semi-structured interviews with 23 middle class mothers in India and found that cultural practices, traditions, and the presence of trusted offline strong-tie networks influenced their social media engagement.

CCS CONCEPTS

• **Human-centered computing** → *Human computer interaction (HCI)*; User studies;

KEYWORDS

Social Media, Cultural Influence, Indian Mothers, Transition, Motherhood, Social Capital, Weak Ties, Strong Ties, Context Collapse, Information Seeking, Pregnancy

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1 INTRODUCTION

Social media (e.g. Twitter, Facebook, Instagram, LinkedIn, WhatsApp) has been defined as a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 [35]. It allows the creation and exchange of user-generated content. Using social media, individuals establish or maintain connections with a wide array of individuals and groups, present themselves, accumulate friendships, share and consume news and information, and articulate their social networks and status [12, 34].

Multiple researchers have studied mothers' social media use during the transition to motherhood. Most of these studies focused

on mothers' social media use in western cultures, considering social media use as an activity by seemingly homogeneous participants [2, 21, 27, 45]. Often, western cultural norms and interactions are implied as context. This assumed context of studies, predominantly western context, is not a new phenomenon. Early research of Internet use also assumed the users and effects as generic [36, 37]. However, as the Internet users became heterogeneous, researchers have begun studying its effects on users of varying demographics and resources [7, 43].

This pattern can be observed in social media research as well. For example, in multiple early works on social media use of mothers, the assumed context was the western culture, and the results were presented as generic. However, researchers have suggested that technology and its use are culturally influenced. For example, Nelson and Clark described technology as a "culturally embedded, value-laden activity," suggesting that technology (e.g., Internet, social media) use and its influence have a strong cultural component [48]. These early researchers' work influenced us to examine Indian mothers' social media use through the lens of cultural influence.

A previous study used a composite indicator based on multiple economic and social characteristics—including income, skills and credentials, social networks, housing, and lifestyles—and calculated the size of the Indian middle class to be 28% of the urban and rural population [3]. It is more than 350 million people, almost the same population of the entire United States. However, studies on technology use of middle class mothers in India and their social media interactions are very sparse and a majority of the HCI research conducted in India is focused on the low-income population, indeed, an important segment of the population [20, 38, 40, 57, 62]. However, the explicit choice to primarily focus research on low-income populations can result in a particular representation of India in western dominated research. Our research is a step towards bridging that gap by extending the research space to middle class mothers in India and thus contribute toward decolonizing research on motherhood dominated by western perspectives.

2 RELATED WORK

2.1 Social Capital and Cultural Influences

Social capital is defined as the "resources embedded in one's social networks, resources that can be accessed or mobilized through ties in the networks" [39]. It refers to networks, norms, and trust that facilitate cooperation for mutual benefit [54]. In 2002, Aldridge et al. suggested that the main determinants of social capital include: history and culture; whether social structures are flat or hierarchical; the family; education; the built environment; residential mobility;

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economic inequalities and social class; the strength and characteristics of civil society; and patterns of individual consumption and personal values [1].

Culture represents shared norms, values, traditions, and customs of a group that defines and guides appropriate and inappropriate attitudes and behaviors [29]. In India, practices relating to pregnancy, childbirth, and maternal and infant care have been rooted in traditions and cultural beliefs based on the knowledge in ancient Indian texts passed down to generations [14]. The 2016 "The Maternity Benefit (Amendment) Bill", which extended the mandated paid leave for the new mothers from 12 weeks (1961 Act) to 26 weeks, is a testament to Indian society's commitment to new mothers' welfare [59]. Pregnancy and childbirth are generally perceived very positively in India. In the Indian context, it is common for parents to be married at the time of birth¹. As comparison, about 60% of US children are born to married parents. Most married couples and their family are delighted to learn of their pregnancy. It is a common cultural expectation and often honored social commitment that Indian women be cared for in their parents' home starting weeks and sometimes months before the delivery and continuing many weeks and months after the delivery [58]. These cultural practices have implications on Indian mothers' perceptions and use of social media for social capital.

2.2 Sharing and Culture

What, when, and how much to share on social media is a personal choice. However, such personal choices are affected by the cultural environment in which people are brought up and living in. An important aspect that cultures differ on which can influence the offline and online sharing behavior is individualism and collectivism [30]. The core element of individualism is the assumption that individuals are independent of one another, while the core element of collectivism is the assumption that groups bind and mutually obligate individuals [33, 50]. Individualism tends to prevail in Western countries, while collectivism prevails in Eastern countries [32]. According to Hofstede, in collectivist societies, the transgression of norms leads to shame [31]. In collectivist societies such as India, sharing personal information, personal setbacks, or illness is not common, and it is frowned upon. Such cultural norms can influence social media sharing behaviors across cultures.

2.3 Mothers' Social Media use

Social capital, derived from ties with friends, neighbors, and colleagues, has shown to be an indicator of psychological well-being, such as self-esteem and life satisfaction [4, 28]. An individual's social networks and interpersonal relationships substantially impact their physical health and psychological well-being [24, 25, 61]. Researchers have examined the relationship between online social media network platforms and social capital formation during life transitions, such as becoming a mother. Previous studies have shown that many mothers sought information and support from various internet sources, such as online forums and Facebook, as they transitioned to motherhood [2, 5, 11, 21, 27, 45]. Research suggests that the use of Facebook, an important source of social

support for pregnant women and new mothers, is not only maintained through the transition to parenthood but, in many cases, is even increased [6]. These studies are carried out in the context of western cultures. The use of social media such as Facebook can differ according to a variety of social, economic, and cultural factors, and personality traits [46]. Thus, it is important to be wary of generalizing social media users and their uses across cultures.

2.4 Bonding and Bridging capital

Putnam distinguishes between two forms of social capital: bonding and bridging [55]. Bonding social capital exists within strong-tie networks with high degrees of trust, intimacy, and emotional support. Members of strong-tie networks have long histories and are readily available for support in all circumstances [26].

On the other hand, bridging social capital exists within weak-tie networks and is based primarily on new perspectives and useful information. They enable reaching populations and audiences that are not accessible via strong ties. These ties can be utilized to gain access to people, information, and facts that otherwise would have been inaccessible. Granovetter compared the weak ties to a bridge between a person and the information they may not have access to. Members of weak-tie networks are much less likely to offer support in all circumstances but are far more likely to provide useful information concerning a particular topic [17, 18]. Bridging capital often occurs through schools, clubs, and workplaces and connects people from different backgrounds [55, 60]. In 1973, Mark Granovetter proposed the strength of weak ties theory: human relationships (acquaintance, loose friendship) that are less binding than family and close friendship but yield better access to information and opportunities. Weak ties are a critical source of bridging social capital - access to novel perspectives and new information [26, 55].

2.5 Context Collapse

Context collapse happens when people, information, and norms from different contexts merge [10, 42, 44]. It occurs in online social networks because a variety of people from different contexts are grouped together in a single location [42]. According to Goffman, individuals engage in differentiated self-presentations based upon their audience [23]. Unlike face-to-face interactions, people lose the ability to assess the context of the interaction in order to decide how they will act, what they will say, and how they self-present. In 2016, Facebook attributed the decline of personal and original content sharing in its social network to the construct of "context collapse" [19]. Borkovich and Breese found that socio-cultural factors contributed to Facebook's context collapse [9].

3 METHODOLOGY

We conducted an exploratory, semi-structured interview study in the summer of 2019 with 23 middle class mothers in India. The Institutional Review Board of Microsoft Research approved this study. We focused on the following three broad areas of experiences and behaviors during pregnancy, the transition to motherhood, and parenting.

- (1) Social media preferences and engagement patterns
- (2) Online and offline support sources during pregnancy and transition to motherhood and beyond

¹<https://sustaindemographicdividend.org/articles/international-family-indicators/global-childrens-trends>

- (3) Influence of cultural and familial norms and expectations of social media participation

3.1 Participant Recruitment

We used social media platforms to recruit participants. We posted recruitment messages in personal Facebook pages, pregnancy and parenting related closed Facebook groups, and personal WhatsApp groups. We recruited 23 participants residing in India. They were from the following three states - Karnataka, Kerala, and Tamil Nadu. All of them had at least one child who is younger than 5 years old. All of the participants were heterosexual, married, and living with their spouses. All of them reported holding a bachelor's degree or higher, with 21 reporting being employed, and 2 reporting being unemployed. The participants' age ranged from 23 to 35 years old, with an average age of 28.3 years.

3.2 Semi-Structured Interview

Out of the 23 interviews, 19 were conducted in person and four were conducted over the phone, all with the first author. Participants were given an electronic gift card worth rupees 750.

We began the interview by asking participants about their social media preferences and activities before, during, and after pregnancy. Next, to understand participants' support structure as they transitioned from pregnancy to motherhood, we asked them about their offline and online support sources. We also probed into the cultural and societal norms that influenced their social media interactions, especially support seeking and information sharing on social media.

All interviews were recorded after obtaining consent from the participants and transcribed by one of the researchers using an audio transcription program. We used thematic analysis driven by grounded theory to analyze the interview data [22]. By closely reviewing the interview, we identified and coded the emergent themes, grouped them into labeled concepts, and then categorized them [8].

4 FINDINGS

We found that cultural and familial traditions and norms influenced social media engagement patterns of the middle class mothers in India we interviewed. We also found that the availability of supportive offline strong-tie networks shaped their support seeking behaviors on social media. In addition, we found that they appropriated social media platforms and interactions to honor and conform to culturally rooted privacy concerns and attitudes towards information sharing while leveraging social media for information seeking and sharing.

4.1 Influence of Culture on Social Media Interactions

Our participants' cultural and familial norms, beliefs, and expectations have influenced their choice of social media platforms and interaction patterns. In the following sections, we discuss a few such influencing factors.

4.1.1 Strength of Ties. Pregnancy and postpartum care are given much emphasis in all strata of Indian society. Usually, an Indian

woman returns to her parental home for the latter part of the pregnancy, birth, and postpartum care. It is common for the pregnant daughter to receive support and care from her father and mother in her childhood home as only one percent of Indian marriages end in divorce [56]. In addition, multi-generational families are common, where grandparents are also present at home.

Mother as Primary Support Source: Findings from several prior studies of social support for pregnant women and new mothers in the western context suggested that women consider their partners as the main source of support [51, 52]. However, contrary to this finding in the western context, a consistent theme emerged from our interviews. For Indian pregnant women and new mothers, their own mothers are the quintessential source of support. They felt confident to face pregnancy and motherhood related stressors because of their trust and certainty in support from their own mothers or mother figures. In many cases, mothers-in-law were reported as an equally important supporter. Every participant in the study moved back to her parents' house at least a few weeks before delivery and stayed there for weeks after delivery. After that period, in some cases mothers moved in with the daughters or daughters-in-law to take care of them and the infant. Their mother figures' physical presence provided emotional and physical support during the stressful transition stages to new motherhood. P15, an IT professional, described how her mother provided continuous care for her.

"(P15) After delivery, I was at my home for 4 months, and my mother was taking care of me completely doing everything. I just be with the baby, breastfeed every one and a half hours."

P10 shared how her mother-in-law and her mother supported her for a long period after childbirth.

"(P10) I was at my home after delivery. When I came back [to her city of work], my mother-in-law came to stay with me to help with the child. She was with us for three months, and thereafter, my mother came for 4 months."

Participants in our study have trusted and heavily relied on their offline strong-tie connections, especially for emotional support during all phases of transition to motherhood. This reduced their need for reliance on social media for emotional support. In some cases, their strong-tie connections advised them against online advice and resources. For example, P6 shared that she used to read social media posts, Google search results, and YouTube Videos regarding labor and delivery, which made her scared and anxious. Her mother advised her to quit doing that.

"(P6) My mother used to tell me not to use Google or social media because it will increase my tension, like this or that [bad experiences] will happen in childbirth."

Instrumental Support from Maids There are three main categories of social support; emotional support, informational support, and instrumental support [13]. Emotional support is acting as a confidant for someone, informational support is providing useful information, and instrumental support is offering physical assistance in a tangible way, such as helping to do laundry, cook dinner, or clean. Previous studies in western culture have shown that pregnant and new mothers benefit from emotional and instrumental support provided by partners and significant others [41, 49, 53]. The gap in expected and received support from their partner is a source

of unhappiness in new mothers who expect their partners to be the primary sources of emotional and instrumental support [47, 53]. Even though every participant in our study was married, they did not expect their husband as the primary source of instrumental support. The breadth and depth of the support available to Indian middle class mothers reduced the expectations of support from their husbands.

In addition to mother figures who helped them during pregnancy and for months after delivery, all our participant mothers have employed maids mostly full-time and in some cases part-time. Some had multiple part-time maids for specific tasks such as cleaning, cooking, and taking children to school and activities. P15 explained that before the delivery she had a maid mainly for cleaning but after delivery, she employed a cook also.

"(P15)... for other things, like cleaning utensils, sweeping, we have a maid. But [for] cooking I didn't keep, but after delivery, I kept a cook."

Our results indicate that in such middle class Indian households, husbands are not expected to help with household chores or infant care as much it is expected of from partners and significant others in western cultures.

Easy access and trust in healthcare providers: The mothers we interviewed showed tremendous trust and satisfaction with their healthcare providers. In some cases, they mentioned that they could call the healthcare providers directly to ask questions. They told us that they do not trust health information from social media, especially when it comes to matters of their children's health. Some participants shared that they sometimes looked up information on children's health conditions on social media, but they often won't trust the information. They will usually verify it with their doctors.

"(P7) Just for ideas, I just Google or read posts, but I don't trust everything. I will directly go to the hospital, to the pediatrician, because I won't take the risk."

The availability of paid maternity leave, mandated by the Indian government helped the middle class Indian women we interviewed to take full advantage of care and support offered by their strong-tie network, contributing to low dependence on social media. We found that **offline strong-tie relationships of the middle class mothers in India influenced their social media engagement for health and parenting information and support.**

4.2 Social Media Preferences and Engagement Patterns

The participants in our study, the middle class mothers in India, used different social media platforms to enact their strong vs weak tie interactions during the transition to motherhood. In addition, their reliance on social media for support evolved as they transitioned from pregnancy to labor, delivery, post-delivery, new motherhood, and beyond. This aligns with previous research conducted in the United States, where researchers found that mothers' support needs, support sources, and technology preferences evolve as they transition from pregnancy to motherhood [52].

4.2.1 Strong-tie Networks. Greenwood et al. report extremely high use of social media sites among American Mothers, with Facebook

leading the pack at a usage rate of 81% [16]. Bartholomew et al. suggest that American mothers' Facebook use is not only maintained through the transition to parenthood, but in many cases, is even increased [6]. Influenced by these and other studies conducted in the Western context [2, 21, 27, 45], and two of our authors' lived experiences as mothers living in the western culture, going into this study, we assumed that Facebook and Facebook Groups would be the main social media engagement platforms for Indian mothers also. However, coming in, we realized that our assumption was wrong, and WhatsApp emerged as the preferred social networking platform for our participants. Even though participants accessed novel information via Facebook during pregnancy, they used WhatsApp to enact strong-tie networks to share personal information and seek and receive support on personal matters. In fact, Indian news media recently (after our studies were concluded) published results from a survey that identified WhatsApp as the preferred social media platform for Indian Mothers, with Instagram as the second².

We found that WhatsApp groups served as an important extension of our participants' offline strong-tie networks. For example, participant P13, who has a 4-year-old son, said,

"If I have a parenting question, I will post it [in WhatsApp groups of close parent friends] or ask friends and family."

P17 said she belongs to a WhatsApp group of mothers in their apartment complex and explained why she felt comfortable asking questions and sharing information there, rather than posting them on Facebook groups.

"(P17) I know most of them personally. So I prefer that one [WhatsApp group] because on Facebook groups, most of them we don't know right? I don't know them personally. So I prefer WhatsApp group where we have a friends circle."

4.2.2 Weak-tie Networks. In the 1970s, Granovetter highlighted the value and importance of weak-ties [26]. Weak-tie networks are formed with people outside one's close circle. Historically, middle class Indian mothers have enjoyed most pre- and postnatal support from their strong-tie network of close family members. However, we observed that during pregnancy and early months of new motherhood, with the help of social media, women in our study formed weak-tie networks with diverse groups outside of their strong-tie connections and gained access to novel information they otherwise could not have accessed during pregnancy.

The ubiquity of social networking sites enabled them to establish weak-tie connections to access novel resources that are not typically present in their strong-tie networks. Of particular interest to these mothers were online forums and websites that individually tailored fetal development information based on the due date. Participant 5 explained the process as follows:

"(P5) We have to give the due date, then they will give you what to expect each week, baby's growth and updates."

Based on previous research, Facebook is generally considered a weak tie network [15]. This was true for the middle class mothers in India who participated in our study also. **They used Facebook to build weak-tie networks and access novel information on**

²<https://timesofindia.indiatimes.com/life-style/parenting/moments/study-reveals-indian-moms-spend-most-of-their-time-on-whatsapp-and-instagram/articleshow/75731151.cms>

pregnancy and parenting. Some participants shared that they get assurance from Facebook.

"(P2) There are many things you think you might be doing wrong. But when you see that other people are facing the same thing or going through the same things you will feel better."

Some participants shared that they look for generic care and parenting tips. P10 said,

"I read information about how to discipline and how to say no to your kid and stuff like that. They have lots of tips like in which month you can give what food and what skin creams are good."

P6 shared how she found solidarity with people on social media about parenting practices that may not be in line with the prevailing norms and advice of their strong-ties.

"(P6) As a mother, you are always trying to figure out what's right or wrong. If you are trying to discipline your kid and your kid is throwing a tantrum, they are crying out loud, you might not get support from your family, then when you see other people saying let your kid cry it out or stuff like that, you tend to feel better about yourself."

Concepts such as "crying it out" are not prevalent in Indian culture.

Participants P6 & P11 discussed how they relied on social media to seek information regarding the baby's growth, but they never posted or commented.

"(P6) Usually I don't post anything there [Facebook groups], I read though, that's what mostly happens, but I have not posted anything actually."

P17 said she would never ask personal questions on Facebook groups; still, she is very comfortable asking questions in WhatsApp groups. The middle class mothers in India we interviewed were **active users on their preferred online strong-tie network (WhatsApp) and lurkers on their online weak-tie network (Facebook).**

4.2.3 Privacy Concerns and Social Media Sharing. Our conversations with middle class mothers in India pointed to an overall wariness about their privacy on social media. They were also concerned about data collection and its use by companies and the government. As P10 explained, the customized marketing messages generated by popular social media sites contributed to that wariness.

"(P10) I feel it's (Facebook) not safe because if I search for something in Google, immediately on Facebook, advertisements related to my search seems to come. So I feel it's not very secure."

Middle class Indian mothers in our study trusted WhatsApp groups. They sought and gave advice on personal matters and felt supported by WhatsApp group members.

"(P13) If at all I am having some small issues with my kid, I will just ask in there [WhatsApp Group], they will have some home remedies, people would have tested it already. Suddenly some stomach pain or something like that, somebody will suggest some home remedies, they will share those, and so that is helpful."

A previous study, conducted in Western culture discussed how the Internet could act as a powerful form of support by providing a safe place to ask even embarrassing questions [21]. However, the participants in this study shared grave concern and dislike for posting personal information about their children on public social media like Facebook. They also shared that their posting patterns

have changed after marriage as their new offline connections, in-laws, and the extended circle of new relatives became Facebook friends, contributing to further context collapse online. They preferred to keep sensitive or controversial personal information from members in their new marital context, and members of other contexts of their lives, such as neighbors, and co-workers. They used the social media platform that they perceived to be more private and safe, as their preferred engagement platform to mitigate the context collapse. P12 shared her thoughts on privacy in Facebook vs WhatsApp, pointing to the context collapse on Facebook.

"(P12) You know the people in WhatsApp groups better than on Facebook. On Facebook, friends and their friends can see what we write and may not necessarily appreciate your thoughts, people have different backgrounds, different cultures."

The perceived lack of privacy affordance of Facebook, aggravated through context collapse, was one reason for their reduced engagement and reliance on Facebook. However, according to our participants, WhatsApp provided better privacy affordance, which enabled them to control who has access to the information they share, and the platform provided easy access to trusted sources of information.

5 LIMITATIONS

In this study, we interviewed only middle class mothers who reside in the Southern part of India. Given that India has 28 states with different cultural practices and traditions, varying levels of Internet access, and socio-economic strata, these findings may not be generalizable for the whole country or across regions. Given the country's large population and cultural diversity, a larger study with participants drawn from more states in different regions is warranted. Despite this limitation, we hope that this study will contribute to a more nuanced understanding of how cultural contexts influence social media use. Even though WhatsApp is owned by Facebook, we did not explicitly ask our participants about their thoughts on that with respect to privacy concerns. We hope that future studies will try to incorporate such nuances.

6 CONCLUSION AND IMPLICATIONS

Our investigation has shown that socio-cultural factors influence the social media interactions of middle class mothers in India who participated in our study. Their choice of social media platforms, patterns of interactions, and information sharing and seeking are culturally dependent. Our study shows that a one-size-fits-all approach to studying social media engagement behaviors and their influence on information seeking and sharing may distort the ground reality across cultures. Our findings suggest that networking platforms with better privacy affordance may have a higher adoption rate in collectivist cultures. Most of the popular social networking platforms are designed and developed in the United States, an individualistic country, where sharing of personal information, achievements, failures, or illness is celebrated and encouraged as opposed to more collectivist countries where such sharing can be met with disapproval and condemnation. We hope that our work will inspire HCI researchers to further investigate the cultural influence of social media use in different cultural contexts and thus develop

culturally informed insights to guide the design and development of more culturally inclusive social network platforms of the future.

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