

Persisting Taboos: A Community-Based Study and transmission of Menstrual Myths in Tricity (North India)

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ABSTRACT

A community-based cross-sectional study, conducted from April 2024 to March 2025 across urban, rural, and slum areas of Mohali, Chandigarh, examined the persistence and intergenerational transmission of menstrual myths among 702 respondents (542 females). Findings revealed widespread awareness of myths, with 96.3% of overall respondents knowing about religious restrictions (94.5% female believing them) and 97.1% endorsing the toxicity myth, while only 17.2% supported keeping menstruation taboo. There was a clear generational divide: middle-aged adults (31–45 years old) showed the strongest support (89 vs. 38), while youth (12–18 years old) rejected myth transmission by an overwhelming margin (144 vs. 34). According to a geographic analysis, slum communities maintained the highest level of traditional adherence (66 for vs. 49 against), while urban areas led opposition (179 against myths). Family members accounted for the majority of information sources (52.8%), while formal education channels contributed very little (5.9% from schools). According to projections based on a cohort replacement model, urban areas might attain a negligible myth prevalence (<5%) by 2050, whereas rural/slum areas might need to wait until 2070–2080 to receive any kind of intervention. The study offers evidence for menstrual health interventions in North Indian communities that are location- and age-specific, highlighting the potential for cultural change to be accelerated by demographic forces and focused education.

INTRODUCTION

In today's modern society, everywhere you look, they talk about equality and diversity, but even in today's time, people shy away from talking about a few things and one of them is menstruation. Even today this society looks at this biological process through the eyes of shame, hatred, myth and misunderstanding. But in today's youth, few people accept it wholeheartedly and raise their voice to give it respect and support in the social space. Through the varied

perspectives of girls, women, men, and transgender people, we set out on a trip through the complex terrain of menstruation life in these pages. We explore the physical, psychological, cultural, and social facets of menstruation in an effort to improve awareness of this essential facet of life for all people. Menstruation is a very private experience for the girls and women whose bodies fluctuate in time with the moon; it's a monthly trip filled with both successes and setbacks. Through the early stages of adolescence and the later stages of menopause, they bravely, tenaciously, and gracefully ride the waves of femininity. However, menstruation life transcends gender and includes the experiences of transgender people as well as males who see this biological occurrence from many perspectives. Men's menstruation is often a mystery to them, a cause of intrigue, unease, or even terror. However, their comprehension and assistance are crucial in dismantling the barriers of stigma and shame since they are partners and allies. Menstruation may also be a complicated and subtle part of identity for transgender people, serving as a reminder of the discrepancies between their lived reality and social expectations, as well as between their body and self. Their stories push us to embrace the entire range of human uniqueness and broaden our perspective on menstruation beyond the boundaries of binary gender conventions. Let us put the shadows of shame and secrecy aside as we read these pages and embrace the enlightening force of acceptance, empathy, and knowledge instead. Let us honor the tenacity of the human spirit—the power, grace, and innate worth of every person, irrespective of their gender or biological makeup. For a girl, menstruation is a highly personal experience - menstruation is a unique process that introduces her to her strength, courage, and endurance. It is a struggle every month and a unique music that teaches her to respect, understand.

MATERIALS AND METHODS

The study employed a mixed-methods approach combining quantitative surveys and qualitative interviews conducted from April 2024 to March 2025 across urban, rural, and slum areas of Mohali, Chandigarh, using a stratified random sampling technique to ensure representation from four age groups (12-18, 19-30, 31-45, and 46+ years) with a final sample of 702 participants (542 females, 160 males). Data was collected using structured questionnaires that were administered online (Google Forms) and offline (face-to-face interviews using tablet devices). The questionnaires were translated into Hindi and Punjabi with back-translation verification and validated through pilot testing (Cronbach's $\alpha=0.82$). The projection model modified Preston's demographic replacement framework by including cohort retention rates (85% per 15-year generation) and annual belief attrition (2%). Descriptive statistics (frequency distributions for myth prevalence), chi-square tests for age/area comparisons, and logistic regression to identify belief predictors were used in the statistical analysis.

Ethical Consideration

This study adhered to strict ethical guidelines, obtaining prior approval and securing written permissions from school principals and heads across all participating institutions in Mohali and Chandigarh. For minor participants (12–18 years), informed consent was obtained from parents/guardians, confidentiality measures, and voluntary participation rights, while adult participants provided direct consent. All respondents were assured of anonymity (no names/identifiers recorded), data security (encrypted digital storage), and the right to withdraw without consequences. Sensitive questions about menstrual practices were framed neutrally by female investigators to avoid discomfort.

RESULTS AND DISCUSSION

Demographic Profile of Survey Respondents (TABLE 1) : The study gathered responses from 702 participants, recording important demographic details like age, gender, occupation, level of education, and place of residence. Understanding the demographics of the surveyed population is crucial for placing the research findings in context. Of those surveyed, 77.21% identified as female, 21.94% as male, and 0.85% as other-identifying. This disparity in gender may be a result of the sampling strategy or the intended audience, indicating that the majority of survey respondents were female.

A wide range of age groups comprised the respondents, with the largest group being 12–18 years old (33.76%), followed by 19–30 years old (30.20%). The percentage of adults aged 31–45 years was 23.08%, and the percentage of adults aged 46 and older was 12.96%.

This suggests that younger populations were the majority of those surveyed, which could have affected the results based on generational viewpoints.

The majority of participants (36.04%) had completed graduate or higher education, followed by secondary (22.22%) and higher secondary (19.09%) education. 5.84% said they had no formal education, while 16.81% had only completed primary school. The high proportion of respondents with formal education raises the possibility that those with formal education could have found the survey easier to access. Of those surveyed, 55.27% were students, 32.19% were working, and 12.54% were either unemployed or only partially employed. This distribution emphasizes how the survey primarily reflects the opinions of students, which could have an impact on how broadly the findings can be applied to working populations. The majority of respondents (55.84%) lived in cities, while 23.50% lived in rural areas and 20.66% in slums. The survey's urban preponderance may indicate that digital or infrastructure factors influenced access, which could have limited the representation of rural and slum areas.

According to the demographic analysis, the survey participants were primarily urban, educated, young, female, and a sizable percentage of students. These traits should be taken into account when interpreting the study's results because they could affect how broadly the findings can be applied to other population segments. More balanced representation across demographics could improve the robustness of findings in future studies.

A subset of 542 participants (those who had heard of the myths) were asked if they believed them. The results of this section show the awareness and belief in common menstrual myths among 702 respondents. The information exposes long-standing myths about menstruation, which are a reflection of societal taboos that endure in spite of modernity.

TABLE 1

Category	Option	Number of Respondents
Gender	Male	154
	Female	542
	Other	6
Age Group	12-18 years	237
	19-30 years	212
	31-45 years	162
	46+ years	91
Education Level	No formal education	41
	Primary	118
	Secondary	156
	Higher Secondary	134
	Graduate and above	253
Occupation	Student	388
	Employed	226
	Unemployed OR PARTIALLY EMPLOYED	88
AREA OF LIVING	URBAN	392
	RURAL	165
	SLUM	145

Almost every respondent knew about common menstrual restrictions: 94.5% of those who were aware of the myth thought it was true, and 96.3% had heard that women who are menstruating shouldn't go into places of worship. Menstruating women are "impure or unclean," according to

93.7% of respondents, and 82.5% of them agreed with this statement. Of those who were aware of the myth, 97.1% believed it to be true, and 96.7% were aware that menstrual blood is toxic or harmful.

These results demonstrate how institutionalized menstrual stigma persists, especially in contexts pertaining to religion and purity. Some myths demonstrated a high level of awareness but a lower level of belief consensus: Only 62.9% of those who heard the advice believed that women who are menstruating should not cook or handle certain foods. Only 17.2% of respondents personally agreed that menstruation should not be openly discussed, despite 95.3% knowing it is frequently regarded as a taboo subject. This indicates that even though the taboo around menstruation is still widely acknowledged, there is growing opposition to it. Fewer respondents knew about more uncommon limitations: Only 32.5% of respondents thought that women who are menstruating shouldn't take a shower or wash their hair, and only 36.2% had heard this. Perhaps as a result of hygiene education, this myth seems to be much less prevalent.

High Awareness but Persistent Misconceptions (TABLE 2)

TABLE 2

Myth	Heard of It (Yes) N=702	Heard of It (No) N=702	Believe It (Yes) N=542	Believe It (No) N= 542
Menstruating women are impure or unclean.	658	44	447	95
Menstruating women should not enter religious places.	676	26	512	30
Menstruating women should not cook or touch certain foods.	543	159	341	201
Menstruating women should not bathe or wash their hair.	254	448	176	366
Menstrual blood is harmful or toxic.	679	23	526	16
Menstruation is a taboo topic and should not be discussed openly.	669	33	93	449

Important Implications

Cultural and Religious Sanctions Predominate: Systemic stigma is evident in the near-universal awareness and high belief rates of restrictions related to religion (e.g., temple entry) and purity norms (e.g., impurity, toxic blood). Openness Shift by Generation? Few people personally believe that menstruation should be kept secret, despite the fact that most people agree that it is a taboo subject. This suggests that attitudes may be changing among younger or better-educated groups. Targeted Interventions Needed: While religiously connected beliefs necessitate

community-engaged approaches, myths about food, bathing, and toxicity may be simpler to debunk through education.

Restrictions

The sample may underrepresent male viewpoints on menstrual myths due to its 77.2% female skew. Compared to rural/slum populations, urban respondents (55.7%) might have been exposed to myths differently. Although menstrual myths are widely known, opinions on them vary, ranging from a strong opposition to keeping quiet about the subject to a nearly universal acceptance of religious prohibitions. The information emphasizes the necessity of myth-busting campaigns that tackle ingrained cultural norms, especially those related to faith and purity, as well as false information. The reasons behind the persistence of some myths and their connections to gender, education, and urbanization could be investigated in more qualitative research.

TABLE 3

Source of Information	Number of Respondents N=702	Percentage
Family (mother, sister, etc.)	371	52.84900285
Friends	127	18.09116809
School/Teachers	42	5.982905983
Healthcare Workers	56	7.977207977
Media (TV, radio, internet)	29	4.131054131
Religious or Community Leaders	54	7.692307692
Other (please specify):	23	3.276353276

Primary Sources of Menstrual Health Information Among Respondents (N=702) (TABLE 3)

This survey, which had 702 participants, provides important information about how women are taught about menstruation. The information reveals that, as opposed to official educational or medical channels, menstrual health information mainly circulates through informal, personal networks. According to 52.85% of respondents, family members—especially mothers and sisters—are the most common source of information. Almost 71% of menstruation-related information sharing occurs through personal relationships, with friends making up the second most common source (18.09%). Interestingly, formal institutions have a negligible impact. Merely 5.98% of those surveyed received their primary education from teachers or schools, and 7.98% did so from healthcare professionals. This implies that there are large gaps in institutional menstrual education, as many women turn to possibly less reliable personal networks.

Traditional community sources (religious or community leaders at 7.69%) actually outpace modern media channels (TV, radio, internet at 4.13%), indicating the enduring influence of local authority figures in some communities.

These results have significant ramifications:

Reliance on family and friends may cause cultural taboos and myths to be passed down through the generations. Critical opportunities to deliver accurate information are being lost by healthcare and educational institutions. The lack of media influence raises the possibility that the current awareness campaigns are ineffectual. Religious leaders have a role that offers opportunities for collaboration as well as challenges.

In order to guarantee that women receive accurate information through the most reliable channels, the data emphasizes the necessity of bolstering formal menstrual education programs and collaborating with families and community leaders. In order to effectively combat menstrual stigma and misinformation, future interventions should address this ecosystem of information sharing.

Attitudes Toward Passing On Menstrual Myths by Age Group and Residence Area (TABLE 4)

TABLE 4

Age Group	Believe Myths (Yes)N=542	Believe Myths (No)	Open to Discuss Menstruation (Yes) N=702	Open to Discuss Menstruation (No)
12-18 years	99	79	209	28
19-30 years	113	54	193	19
31-45 years	109	18	138	24
46+ years	66	4	32	59

Among 702 respondents, the survey data shows notable generational differences in attitudes toward menstruation. The results show a distinct shift in viewpoints between age groups, with younger participants exhibiting patterns that differ significantly from those of their older counterparts.

Age-Related Myth Belief: Younger respondents are more skeptical of myths surrounding menstruation. Of those aged 12 to 18, 55.6% believed myths; however, among those aged 46 and

up, this percentage jumps to 94.3%. A transitional phase in attitudes is suggested by the moderate belief levels (67.7%) of the 19–30 age group. Most remarkably, 85.8% of those in the 31–45 age range continued to hold myth beliefs, suggesting that these misconceptions are most prevalent in middle adulthood. The patterns are completely reversed here. Amazingly, 88.2% of 12 to 18-year-olds are willing to talk about their periods, and 91% of those in the 19 to 30 age range are similarly receptive. The openness rate among those aged 46 and over drops to just 35.2%. The intermediate levels (85.2%) of the 31–45 cohort reflect their transitional status in myth belief. A Generational Divide: The data shows a distinct cohort effect, with younger generations welcoming open discourse and rejecting myths more forcefully. The Middle-Aged Paradox: People between the ages of 31 and 45 exhibit a high level of myth belief but a startling amount of receptivity to debate, indicating nuanced, changing attitudes.

The stark contrast between the youngest and oldest responders suggests that menstrual attitudes are changing quickly in society. The patterns of transition in the 19–30 and 31–45 age groups might indicate important phases of life for educational interventions. Young people are ideal candidates for menstrual education and stigma reduction. Adults in their middle years may be open to new information even though they have some traditional beliefs. Intergenerational dialogue techniques may be especially advantageous for older generations. Although school-based programs seem to be successful, they require support in the years following education. These statistics demonstrate the need for age-appropriate methods of menstrual health advocacy and education while also presenting a positive picture of generational change. According to the findings, there may be a major cultural shift in menstrual attitudes currently taking place, with younger generations setting the standard for increased transparency and scientific knowledge.

Projected Timeline for Menstrual Myth Eradication: A Mathematical Mode (TABLE 5)

TABLE 5

TYPE OF AREA	AGE (12-18)	AGE (19-30)	AGE (31-45)	AGE (46 ABOVE)	TOTAL
SAYS MYTH SHOULD PASS ON					236
URBAN	17	21	38	24	100
RURAL	6	23	29	12	70
SLUM	11	18	22	15	66
TOTAL	34	62	89	51	236
SAYS MYTH SHOULD NOT PASS ON					306

URBAN	78	68	20	13	179
RURAL	38	25	11	4	78
SLUM	28	12	7	2	49
TOTAL	144	105	38	19	306

Based on survey data from 542 FEMALE respondents, this study uses a demographic transition model to predict that, given current trends, menstrual myths will become insignificant (less than 5% adherence) by 2070. The mathematical model takes into account generational turnover (15-year cohorts with 85% retention), age-stratified belief rates (e.g., 19% support in youth vs. 73% in elderly), and annual 2% belief attrition from education/media effects. Similar cohort replacement models used in public health research are cited, specifically Rogers' Diffusion of Innovations theory (Rogers, 2003) for belief erosion rates and the Bongaarts-Feeney demographic framework for cultural attitude shifts (Bongaarts & Feeney, 2002). According to the analysis, focusing on middle-aged populations (31–45 years old), who currently exhibit 70% myth adherence but are crucial for intergenerational change, could speed up eradication until 2050. This model highlights the enduring impact of rural and slum communities, where myths may persist for 10–20 years longer than in urban areas, while offering policymakers evidence-based timelines for menstrual health programs. In contrast to older and slum communities, which continue to hold onto traditional beliefs, urban youth are driving change against menstrual stigma. These findings point to the need for age- and location-specific interventions that empower younger generations as change agents while tactfully involving older demographics through community-tailored approaches to menstrual health education.

Using a demographic cohort replacement model, this study builds on existing frameworks of demographic change (Preston et al., 2000) and cultural transmission (Cavalli-Sforza & Feldman, 1981) to project the timeline for menstrual myth eradication in India. Using survey data from 542 women and the model $S_t = S_0 \times \alpha^{(t/15)} \times (1-\beta)^t$, where α is the cohort retention rate of 85% per 15-year generation and β is the 2% annual belief attrition, shows different phase-out patterns across populations. While rural and slum communities may need until 2070–2080 due to stronger traditional adherence, urban areas, which currently exhibit 81% myth rejection among youth, are predicted to drop below 5% prevalence by 2050 through natural generational replacement.

The critical bottleneck, according to the model, is the age group of 31–45 years old (70% current belief retention), showing how a 10% increase in their belief attrition could hasten overall eradication by 12 years. According to Rogers' (2003) diffusion of innovation theory, these results imply that specific interventions that interrupt intergenerational transmission—specifically, school-based initiatives and community health worker involvement—may shorten the timeframe to 2050. The study makes a methodological contribution by adjusting demographic replacement mathematics to cultural belief systems; however, network diffusion dynamics and policy shock

variables should be included in future studies (Centola, 2018). Policymakers can accelerate the cultural shift toward evidence-based menstrual health understanding by using the predictive timeline and strategic leverage points (youth education, middle-aged engagement, and geographic targeting) provided by this analysis.

CONCLUSION

This study reveals that menstrual myths remain deeply rooted in Mohali and Chandigarh, particularly among older and slum populations, despite high awareness. While urban youth show progressive attitudes, intergenerational transmission persists, especially through family networks. The findings highlight an urgent need for targeted education programs focusing on middle-aged adults and rural/slum communities to accelerate cultural change. With strategic interventions, these harmful taboos could be eradicated within a generation, paving the way for scientific menstrual health understanding. Targeted education programs, community engagement, and policy interventions could accelerate myth eradication by 20-30 years.

This study provides evidence-based insights for policymakers to design age-specific and location-specific menstrual health programs in Punjab and Chandigarh and similar regions.

Dedication : Dedicated to everybody who have shared their experiences navigating the complexities of menstrual life, including their stories, struggles, and victories. To the girls and women who dared to speak up, shattering taboos and silences.

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