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Exploring the “Chilly Climate” at an Indian Liberal Arts College: Is There a Thaw?

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Abstract

The existence of gendered environments within college classrooms is often referred to as the “chilly climate.” Historically, classrooms and campus climates in many universities have reinforced gender bias against female students. However, higher education institutions that embrace critical pedagogies and liberal arts learning may be able to improve campus climates because these educational practices often emphasize dismantling existing inequities and oppressive structures. Thus, it is meaningful to ask if the transformative learning experiences fostered by critical pedagogies and the liberal arts might help thaw the chilly climate. To explore this possibility, we use student experiences from an Indian higher education institution as a case study. More specifically, we interviewed students who were attending a college in western India that has a long-standing commitment to critical pedagogies and the liberal arts. Findings illustrate that students continue to experience gender bias in their classrooms, even though campus policies and practices explicitly promote social equality and transformative learning spaces. This suggests that embedding critical pedagogies into university vision statements and classroom experiences may not be sufficient to thaw the chilly climate; institutional-level actions that explicitly and concretely target the chilly climate will also be necessary. Implications for higher education policies are discussed.

Keywords: Chilly climate; Higher education institutions; Critical pedagogies; Liberal arts; Qualitative research; India.

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INTRODUCTION

In 1982, Hall and Sandler coined the term “chilly climate” [1, p. 3] to represent subtle forms of gender bias that are prevalent in college classrooms. Serex and Townsend further defined the chilly climate as a “psychological climate in which students of one sex¹ are valued differently and therefore treated differently than are students of the opposite sex” [2, p. 528], [3]. Although this definition is ostensibly gender neutral, examples of gender-based educational bias tend to target women and can lead to lowered performance expectations for female students, reliance on gender stereotypes in classroom interactions, the exclusion or reduction of female students’ participation in discussions, and comments that treat female students as incompetent or as objects of sexual humor and sexual allusions [1], [4], [5], [6]. Because these outcomes can have negative consequences for female students [6], [7], [8], [9], [10], it is important to explore collegiate-level practices that may be able to lessen the chilly climate.

For instance, although research documenting the chilly climate experienced by female students is plentiful [11], [5], [12], [13], [14], critical pedagogies [15], [16]—especially those grounded in feminism [17], [18] and social justice [19], [20]—move away from forms of education that support existing inequities, including gender-oppressive structures. It may therefore be possible for the liberal arts to help thaw the chilly climate; however, existing research has not yet examined this possibility. This constitutes an important gap in existing scholarship. Consequently, this research asks whether schools that adopt critical pedagogies are able to create environments that lessen gender bias in classrooms. To explore this research question, we use in-depth interview data from students at an Indian university known for its commitment to critical pedagogies and transformative learning spaces. Using these data as a case study, we are able to offer preliminary insights on the relationship between critical pedagogies and the chilly climate.

Research on chilly climates within educational spaces has often focused on college classrooms in Global Minority countries [11], [12], [13], [21], [22]. Studies have shown that women in the United States and Canada experience emotional exhaustion and cynicism [7], negative cognitive outcomes [8], and ongoing discrimination and harassment [9] due to the chilly climate experienced in the classroom. Recent research has also suggested that similar experiences are shared by female college students throughout Asia. For instance, researchers in South Korea reported that female engineering students often experience sexual objectification, harassment, and/or molestation by male students, and they must contend with gender insensitivity, blatant hostility toward feminism, and a tendency for males to characterize them as weak [21]. Similarly, researchers in Pakistan found that male students—and sometimes male faculty—embrace cultural beliefs that uphold discriminatory practices toward female students [23].

With respect to studies about India, researchers have routinely suggested that female Indian students grapple with harassment, safety concerns, and limited access to supportive services [5], [6], [10], [24], all of which contribute to higher drop out rates among women.

¹The terms gender and sex were used interchangeably in early attempts to define the chilly climate. Today, the World Health Organization [3] suggests the term “woman” denotes gender, while the term “female” denotes biological sex. Although a meaningful distinction, in this article, we continue to use the terms interchangeably.

Additional studies have found that 40% of female students in India are subjected to sexist comments and misogynistic remarks, as well as classroom practices that silence them by encouraging male, but not female students, to speak in class [14], [25]. Importantly, these negative effects cut across academic disciplines [26], [27], employment status [28], and caste [29]. In short, similar to Western universities, the chilly climate has been documented to exist within Indian and other Asian universities and shown to marginalize women and their intersectional identities.

As noted previously, one potential way to address the chilly climate is through a commitment to critical pedagogies and the liberal arts. Unlike most educational models that tend to reproduce social divisions and inequalities while upholding existing socio-cultural structures [15], [30], [31], critical pedagogies embrace transformative educational models that focus on dismantling existing inequities and oppressive structures [16], [17], [19], [30], [32]. Rather than promoting “the status quo of education” [18, p. 181], critical pedagogies “[transform] problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change” [20, p. 58].

Crucial, then, to critical pedagogies are opportunities to challenge frames of reference through “*critical reflections on the assumptions*” of a student’s beliefs, values, and interpretations of their world [20, p. 7, *emphasis in original*]. These transformative learning spaces also create structures where students can engage in autonomous and responsible thinking and reflect on existing foundational knowledge, while educators act as “*facilitators and provocateurs*” rather than as experts [20, p. 11, *emphasis in original*]. The aim is for these learning spaces to facilitate epistemic change in students by altering their worldview [33]. Relatedly, as students’ beliefs, values, and worldviews are altered, it is likely they also experience personal transformations as they come to see and understand themselves in radically different ways [32].

Notably, because critical pedagogies emphasize critical thinking, dialogue, and social change [18], [19], [20], [30], they are commonly associated with capstone classes, research projects, and formative (as opposed to summative) assessments [34], [35]. However, they are also strongly aligned with a particular learning philosophy—namely, the liberal arts [32], [36], [37], [38]. In the same way that critical pedagogies emphasize critical reflection and agency, a liberal arts education nurtures curiosity and inquisitiveness, promotes active application of material, and asks students to grapple with socio-cultural issues [39]. As a result, liberal arts students frequently engage in critical debate and dialogue that can help align their thoughts, beliefs, and behaviors with a willingness to become agents of change [18], [39], [40], [41].

Relatedly, the liberal arts’ tendency to emphasize human belonging, affirm intersecting identities, and challenge gendered, socio-cultural, and normative hierarchies is also associated with reduced gender bias in classrooms [42], [43], [44], [45]. This suggests that pairing critical pedagogies with the liberal arts may be able to promote dialogue, expand students’ core belief systems, and provide spaces for critical voices that may also help lessen the chilly climate women frequently experience in college and university settings. In short, it is precisely the kinds of transformative learning experiences associated with critical pedagogies and the liberal arts that may be instrumental in thawing the chilly climate. It is the primary objective of this

study to explore that possibility by using student experiences at an Indian university as a case study.

India is a useful case study for exploring the link between critical pedagogies, the liberal arts, and the chilly climate because of its commitment to transformational learning models. Although Western educational practices dominated the Indian system following British colonization [46], in recent years the Indian government has proposed that higher education institutions (HEIs) emphasize both vocational learning and the liberal arts [39], [47], [48]. It has been further suggested that within liberal arts curricula, teachers should serve as “change agents” [47, p. 6] who help shape the future by fostering “sound thinkers and sensate players in democracy” [39, p. 6]. This push for critical pedagogies has been driven, in part, by the country’s intersecting sources of diversity in terms of gender, sexual orientation, caste, religion, tribes, region, language, and socio-economic status [41], [49], [50]. Moreover, it is argued that the liberal arts can promote the unique cultural flavors of India (as opposed to highlighting Western ways of thinking) by generating a dialogic “*jugalbandi*” [39, p. 7], or conversation, that is steeped in the Indian cultural context.

Importantly, not only do several Indian universities offer these kinds of liberal arts educational models to students, but a recent study also demonstrated that students attending those universities are better equipped to engage in debate, critically analyze information, and grapple with socio-cultural topics [46]. They are also better able to appreciate the interconnectedness of issues and concepts, apply their learning to real-life experiences, build their own understandings and viewpoints on issues, and expand their awareness of their own personal role in social issues as change agents. As such, students attending these HEIs say they see “... the liberal arts as a unique opportunity to be trusted in their own journey of discovery” [44, p. 132]. It appears, then, that by combining critical pedagogies and the liberal arts, students attending these universities experience transformational learning. It is not yet clear if these experiences also translate into more gender-equitable attitudes among students, but it stands to reason that they might. Thus, we use an Indian college as a case study to explore whether critical pedagogies and the liberal arts can help thaw the gender-oppressive chilly climate.

In summary, this research asks: Do critical pedagogies and the liberal arts help lessen the chilly climate in Indian higher education institutions? Below we offer a detailed discussion of the data and methodology we use to address this question. Consistent with the standards of qualitative research, we rely heavily on the voices of our participants in the results and discussion section. The depth and breadth of the included quotes provides deep insight into students’ experiences with gender inequity. We conclude by discussing the implications of our findings, noting the limitations of our data, and offering suggestions for future research.

METHODS

This case study was conducted at a small undergraduate liberal arts college in Western India, hereafter referred to as LAC. The case study research methodology involves the “study of a case within a real-life, contemporary context or setting” [51, p. 177]. It allows researchers to gain insight into larger issues through the in-depth study of an individual example [52]. Given that the researchers wanted to conduct a detailed, in-depth examination of the gender climate at a liberal arts, higher education institution, the case study approach was ideal. Moreover, LAC

was a particularly good site for this case study because it explicitly promotes critical pedagogies and social justice education (citation suppressed for blind review). In its vision statement they assert, “Through innovative teaching, research, community outreach activities, [and] experiential learning ... we foster thoughtful inquiry, insightful reflection, and robust discourse. At [LAC], we aim to nurture students into sensitive, ethical, and critically conscious citizens who will contribute responsibly to their communities and society” (citation suppressed for blind review). They go on to assert that by pushing their students to think critically and engage deeply with faculty and with each other, they produce students who “demonstrate civic-mindedness,” “act with sensitivity, awareness, and social concern on issues of equity and social justice,” and embrace a “diversity of ideas, free expression of opinions, [and a] critical and scientific temper” (citation suppressed for blind review). Given these emphases and the research goal of exploring if critical pedagogies and liberal education can help thaw the chilly climate against women in Indian HEIs, LAC was a meaningful and appropriate site for this case study.

Because LAC does not have an institutional review board, approval to collect data was obtained from LAC’s Director. At the time of data collection, the first author was a faculty member at the LAC and the second author was a fourth-year student at the university. The third author had no affiliation with the school.

Data Collection

This study is based on in-depth interviews with students. The interview data were collected in two phases. First, two small focus group discussions (FGDs; $n = 10$) led by the first author were conducted with students. The purpose of the FGDs was to learn about participants’ experiences of gender within the classroom so that an interview protocol could be developed for phase two of the study. Although the first author was a faculty member at LAC, care was taken to assure students that participation was voluntary and confidential.

The data from the FGDs were analyzed using content analysis to extrapolate observable behavior that was influenced by gender and gender communication in LAC. The first and second authors then created a semi-structured interview protocol that asked students to describe their perceptions of LAC’s gender climate; typical gendered dynamics between students, between faculty members, and between students and faculty members; the occurrence of sexist behaviors in classrooms; and whether and how the gender climate at LAC needed to be changed.

The second author utilized this interview guide with a new set of students ($n = 20$) who were recruited via emails sent by the first author to third- and fourth-year students at LAC. To alleviate pressure to participate, newly recruited students were assured participation was voluntary and confidential, interviews would be conducted by a student rather than a faculty member, and the faculty member would not have access to the interview data while classes were in session. Furthermore, data immersion and analysis did not take place until after both the first and second authors were no longer affiliated with LAC. Snowball sampling was also used, such that each participant was asked to recommend two other individuals in their third or fourth year of education to participate in the study. Beyond these year-of-study restrictions, students were not asked to limit their snowball suggestions in any way; however, of their own accord, students tended to recommend at least one student who they believed had pro-gender-

equity attitudes and one student who they believed did not have pro-gender-equity attitudes. Lastly, this research was open to students from all fields of study and participants were not compensated for their time.

Prior to beginning the interviews, participants reviewed and signed an informed consent form. The form indicated the aim of the study (exploring students' experiences with the gender climate at LAC), the voluntary and confidential nature of participation, the intent to audio record and transcribe the interviews, and the right to withdraw from the study at any point. All interviews were conducted in-person, in English, in LAC classrooms, lasted between 60 and 120 minutes, and were recorded and stored on a password-protected device. Transcription was completed by a team of seven undergraduate students, including the second author, all of whom were fluent in English, required to sign a data confidentiality statement, and required to review and complete a training manual prior to transcribing interviews. The first and second authors checked the transcriptions to ensure accuracy.

Participant Demographics

Nine female participants and 11 male participants were interviewed for the study, 16 of whom were fourth-year students and four of whom were third-year students. Their ages ranged from 20 to 23 years old, and their major specializations included Media Studies ($n = 6$), International Relations ($n = 5$), Political Science ($n = 3$), Anthropology ($n = 2$), English ($n = 2$), Economics ($n = 1$), and Psychology ($n = 1$). Because this study examines whether critical pedagogies and liberal arts frameworks can lessen the chilly climate by increasing students' critical thinking skills, social justice mindsets, and the like, both male and female students were invited to participate. The distribution of male to female participants was a function of the students who responded affirmatively to the study invitation and who were recruited via the snowball sampling process. Notably, no student recruited via snowball sampling declined to participate in the study.

Data Analysis and Coding

This analysis relied upon qualitative, interpretive research techniques, which are particularly useful for uncovering patterns of meaning within interview data [53], [54], [55], [56]. More specifically, all three authors read each transcript repeatedly in an effort to derive and refine a set of codes for the data. Although many codes were grounded in the literature on the chilly climate [1], [2], [4], codes were not limited to those that were expected based on existing literature. Instead, the voices of the participants were also allowed to shape the codes and themes that emerged from the data. In total, 12 individual codes grouped into three themes were created. For instance, the codes "Favoritism toward Males" and "Favoritism toward Females" were part of a theme entitled "Examples of Bias on Campus," while the codes "Reinforcing Gender Stereotypes/Bias" and "Challenging Gender Stereotypes/Bias" were part of a theme entitled "Consequences of Bias on Campus." The other theme that emerged was "Perceptions of Bias on Campus."

To accomplish coding and theming with as much consistency and accuracy as possible, the authors used techniques associated with grounded theory [57] and the constant comparative method [58]. To that end, the second and third authors read through a subset of the transcripts in order to create and refine a set of codes that could be applied to the data. The first and second

authors then applied those codes to the data. Finally, the third author compared applied codes for consistency. In the event that codes did not align between the first and second authors, all authors discussed differences and jointly decided on the most appropriate codes. When disagreements were not easily resolved, the data were coded with both sets of codes—this ensured that the greatest amount of nuance and the widest interpretation of the interviews were captured in the data. Lastly, the authors created coding tables to identify patterns in the data, wrote lengthy research memos in an effort to make sense of those patterns, and continuously referred to theory and prior research in order to contextualize the emerging patterns.

RESULTS AND DISCUSSION

Three overarching themes emerged from the interviews: (1) perceptions of gender bias on campus, (2) examples of gender bias on campus, and (3) consequences of gender bias on campus. As discussed below, the data on students' perceptions seem to suggest that LAC has broken free of the chilly climate. However, further analysis reveals that the reality is more complex. In this section, we have simultaneously discussed the results while presenting them, as is typical of qualitative manuscripts.

Perceptions of Gender Bias on Campus

The vast majority of the students (85%, $n = 17$) asserted that because LAC is “progressive,” “egalitarian,” and “such a liberal space,” gender bias is largely absent on campus. Students noted, instead, that “everyone gets a fair chance,” they have “never felt uncomfortable,” and “there is no blatant sexism” at LAC. As one female student noted: “When you told me about the study, I was like, ‘Gender bias at [LAC]?’ I mean, I have never really felt it. There are colleges saying that female [students] have curfews or they can’t wear certain clothes, [but] all that stuff is not at [LAC].” And a male student said that while gender bias “might be true for other contexts, I don’t think ... it applies in [LAC].”

Interestingly, the only place where students seemed to suggest the potential for gender bias was in relation to faculty-student interactions. To that end, nearly half of male students ($n = 5$) commented on “subtleties in terms of how faculty treat students” and claimed that some teachers “interact[ed] differently with female and male students.” These same students, however, also asserted that these dynamics “[varied] from class to class,” “don’t depend on a person’s gender,” and were likely “more about the [student-faculty] relationship,” especially “if the student and professor are tight” (i.e., they get along well). Overall, then, these results seem to suggest that Indian liberal arts institutions, such as LAC, are relatively free of gender bias. If true, we might assume that institutions utilizing critical pedagogies and focusing on transformative education are able to lessen, and perhaps even eradicate, the chilly climate on their campuses. However, further analysis of the data suggests that is not the case. Instead, it appears that students may subconsciously internalize institutional messages asserting that liberal arts universities promote “holistic conversations,” “understanding[s] of the nuances of things,” and “aware[ness] of the spectrum of relationship concepts in [people’s] lives,” even while their actual classroom experiences showcase gender inequality.

Examples of Gender Bias on Campus

Students highlighted numerous examples of gender bias at LAC, including favoritism toward male students and classroom environments that were hostile toward women.

Favoritism toward Male Students

Both male and female students said faculty were “very, very, very partial toward boys.” For instance, several female students said male students are “encouraged more,” “called upon to talk more,” and “given a lot of leeway” to speak in class, while men noted that “male students are more encouraged to speak” and “if there [are] two people who are equivalently smart, the guy gets chosen every time over the girl.” Relatedly, numerous students asserted that teachers were more inclined to “put female students down,” “be more dismissive of female [students],” and “be harsh verbally with women.” In contrast, they were willing to “take it easier with the boys” and “give preference to the men on all accounts.”

Students also felt these gender preferences extended to the enforcement of school policies. Both male and female students suggested that dress codes, submission deadlines, and attendance policies were applied more strictly to females than males. Thus, although two male students did assert that “women are given [better] marks because of the fact that they are women,” the overarching sentiment among most students was that many of the faculty were just “unnecessarily mean” and “damn rude with some women.”

Interestingly, students also discussed behaviors by particular male faculty members that were akin to “beat[ing] up guys” and “misplaced ... chivalry” directed at women. These examples are noteworthy because they seemingly contradict the narrative about faculty being especially hard on female students. For instance, students reported that two male faculty members tended to offer rides to female students or insist they be accompanied by male students if they wanted to “go out past a certain time.” In contrast, those faculty “never bother[ed]” offering rides to male students and were “rough with guys,” almost to the point of “hazing.” Thus, several students noted that these two male faculty members were “extremely nice to women” but would “reprimand” males “the minute [they acted] vulnerable.”

Although these examples seem to stand in sharp contrast to the assertion that men “have it easier” at LAC, they may be seen as further manifestations of the stereotypes that give rise to preferences for men over women, especially in the Indian socio-cultural context. Because societal stereotypes portray men as leaders, there is an assumption that male socialization must be “tough” and work toward hardening males [59]. This kind of treatment prepares them to take their place in classrooms, boardrooms, and government positions. In contrast, because stereotypes cast women as highly emotional and in need of protection, their socialization is marked by “softness” and caregiving—treatment that prepares them for their supportive roles as wives and mothers [60]. Thus, the “misplaced ... chivalry”—or benevolent sexism—female students at LAC experienced is consistent with the unwelcoming treatment they faced in the classroom.

Hostile Classroom Environments

Importantly, differential treatment by faculty was only one facet of gender bias at LAC. Students also spoke at length about male students dominating the classroom space, female students being silenced in class, “sounds of disdain” being consistently expressed by male students when gender topics were introduced, and the plethora of both “subtle” and “in your

face” sexist comments and jokes made “quite often” by male students and faculty. Taken together, these things created a hostile classroom environment for female students at LAC.

Specifically, several female students spoke often about the fact that “males tend to occupy more space” and “speak more often” in class. This was true despite the fact that at LAC “the gender ratio ... [was] skewed,” with most classes having significantly more female than male students. Moreover, women noted that men’s contributions were often made by “interrupting,” “butt[ing] in,” “counter[ing],” “mock[ing],” and “dismiss[ing]” their comments. One female student said “there [is] always a boy ready to counter me” and another said men “feel that they have to be on the offence ... or somehow this girl will take away all their masculinity.”

The consequence of male-dominated classrooms was that female students reported feeling comfortable talking “in non-academic spaces,” but the “fear of being ridiculed” and “put down” in classrooms meant they “very rarely raise[d] their hands” in class. Instead, many women were “timid,” “scared of judgment,” and unwilling to “engage in class because ... male voices [were] way too outspoken.” When women did participate in class, they often prefaced their remarks with an apology. According to one student, “Every time a girl speaks, I have heard her say, ‘I am sorry but this may be just off topic.’ ... [but] no boy ever apologizes like that for his talking.”

Both male and female students also noted that classroom discussions about gender were regularly dismissed by male students. For instance, students routinely said that women-initiated conversations about gender because they were “more aware of ... sexism [that was] happening,” but men tried to “circumvent” the topic because they were both “ignorant of the privilege they [had] living as a man in a country like India” and they felt “feminism [was] overrated.” To that end, numerous male students noted that they “groan,” “roll their eyes,” and mutter “oh shit, it’s gender again” when the topic comes up because “they don’t want to talk about something that they feel is pointless.” One male student even said, “Whenever there’s a discussion of gender, I walk out of the class. I can’t do it. I’m sick and tired of ... [discussing] gender issues.” And a female student noted that she and others are often called “feminazis,” told to “shut up,” and told to “take [their] feminism outside.”

Besides telling female students to “shut up” and to stop “being such an uptight feminist,” male students also tried to silence female students with sexist comments and jokes. According to one woman, a male student asked her, “If women are so great then why is it that men are the dominating gender? Isn’t there a reason for why that’s the case?” Another woman reported that if women challenged a male student’s arguments in class, they would often be met with sarcastic retorts, such as “Oh, am I mansplaining now? Is that a problem?” or “Look at me, I’m manspreading. Are you going to say something?” Men also frequently mocked female students by saying “go back to the kitchen,” “what are you doing here,” and “go make me a sandwich.”

Not surprisingly, female students felt that such comments were “messed up,” “inappropriate,” and “demeaning.” That was especially true when the comments were allowed by faculty. As one woman noted, the faculty are “supposed to be imparting knowledge to us” and when they “trivialize” sexist comments and jokes by allowing them to go unchallenged, “that teaches [students] to be freely sexist.” Male students, in contrast, generally excused such behavior, both by their male classmates and their male instructors. They were apt to dismiss

sexist remarks as an acceptable part of LAC's "joke culture." One male student even asserted that "it is *normal* for a [male] teacher to make sexist jokes" (emphasis added), because they are "just supposed to be funny" and "not a serious comment." And another said, "I find a lot of sexist jokes funny. I don't find them offensive.... I don't understand why people get offended." It was precisely this type of desensitization to the impact of sexist comments that suggests LAC remains a chilly climate for female students, despite the school's commitment to critical pedagogies and liberal education.

Consequences of Gender Bias on Campus

The discussion above alludes to the individual-level that LAC's chilly climate had on both male and female students. For instance, the "fear of being ridiculed" that limited women's classroom participation had an additional outcome: women "started believing that [they] shouldn't question ... a man's wishes." Moreover, they began "doubting their own intelligence and worthiness" and accepting that their "freedoms [were] going to be curtailed." This led to women feeling "isolated" and as if they had to "fight this thing alone." Thus, rather than challenging sexist behaviors or comments, they chose to "just ignore them" and/or "give up" because that's easier than "yelling at a brick wall" and "dealing with a person who doesn't want to learn."

In contrast, these classroom dynamics enabled men to feel "entitled" to their "privilege" and reinforced that their "opinions are always given first preference," "the world never puts many checks and balances on [male students'] behavior," and "this is the way it's supposed to be ... this is how you become a man." Moreover, male students recognized that their actions had an inhibiting effect on females. One man noted that he was "completely aware" of the fact that his tendency to "lash out" during gender discussions is one reason women do not "stand up" for themselves. And another said, "the girls might be consciously wanting to challenge [patriarchy], but deep down they just can't—not don't, but can't."

Importantly, to say that women "can't" challenge patriarchy is to recognize that individual-level effects also cumulatively reinforce gender inequalities at the *institutional* level. In other words, students repeatedly noted that bias becomes "internalized" and "normalized" to the point that people "don't even realize when it is happening." As a consequence, the climate itself "keeps reinforcing the idea that this is a man's world and that every relevant agent of change is a man." In fact, several students noted that if men are never told, "you know what, you are having a fuck ton of male privilege," then they will come to "think that [they are] right" and assume that "if [they were] wrong, someone would have said something." Students thus asserted that when male privilege goes unchallenged, everyone in the institution "subconsciously" ends up "creat[ing] conditions that make it easier for the oppressing to take place," and that ultimately means that despite the fact that LAC is "such a liberal space" and "standing up for what you believe in is part of the [LAC] culture," "prejudice based on gender ... is so deep-seated at this point [that] it comes out" in people's actions anyway. A female student perhaps articulated it best when she said, "I think if another woman were to see [LAC's gender] exchanges, she would learn that gender bias *is* an issue, [even] in a so-called liberal arts college" (emphasis in original).

Implications

One must ask, then, why critical pedagogies are able to precipitate change in so many contexts [19], [30], [32], [33] but appear less effective at thawing the chilly climate. System justification theory [61], [62] may provide an explanation. This theory posits that all individuals within a social system (e.g., LAC) tend to justify the existing social order or status quo (e.g., sexism). Individuals' actions toward maintaining the status quo typically occur at an implicit level of awareness, and the tendency to uphold the status quo may paradoxically be strongest among individuals oppressed by the social system (e.g., women experiencing sexism at LAC) [63]. This may explain why most students asserted that LAC was “progressive,” “egalitarian,” and largely free of gender bias, even while in-depth discussions of their classroom experiences revealed favoritism toward male students and the presence of hostile classroom environments for women. They consciously embraced the school's outward commitment to equality even as they unconsciously perpetuated the very inequalities they were trying to combat. In short, system justification theory suggests that the students, faculty, administrators, and staff at LAC all play a role in maintaining the chilly climate. Although their motivations for sustaining this sexist environment are likely implicit, the outcomes are harmful nonetheless.

All of this suggests that critical pedagogies, transformative learning spaces, and liberal arts institutions may be able to impact people on a conscious level but are less successful at dismantling unconscious and long-held implicit biases. Consequently, explicit and concerted efforts aimed at directly eradicating the chilly climate are likely needed. It will not be sufficient to assume that by promoting students' critical thinking skills and by providing them with spaces for critical dialogue, they will naturally experience the epistemic and personal changes we are hoping for. Instead, institutions must combat this issue explicitly and directly.

Doing so is likely at least a three-step process. First, HEIs in India, throughout Asia, and globally, must *acknowledge* that the chilly climate exists on their campuses. Institutions of any kind, including institutions of higher education, often struggle to confront and then address their own weaknesses, but that will be critical if we are to see any meaningful dismantling of the chilly climate on college campuses. Perhaps campuses could begin this task by conducting periodic climate surveys aimed at assessing students' experiences on campus.

Second, after acknowledging the existence of the chilly climate, HEIs should start the process of *promoting culture change* on their campuses. This will require exposing both faculty and students to a variety of social norming campaigns and training activities that seek to change their understandings of the chilly climate. Social norming campaigns and training activities are often used on college campuses in Global Minority countries (e.g., Canada, U.S.) to change beliefs and behaviors that support sexual violence [64]. Perhaps such efforts could be similarly effective at shifting people's attitudes about the chilly climate.

Lastly, HEIs must adopt policies and practices that *mitigate* sexist behaviors on campus. This means faculty members must be willing to tell students when their behaviors are inappropriate (e.g., calling women “feminazis” or students leaving the classroom when gender discussion is broached). It also means students must have mechanisms in place for reporting faculty who are themselves encouraging the chilly climate. Only by directly addressing behaviors that promote the chilly climate will we be able to eventually eradicate it.

CONCLUSION

We set out to explore whether the critical pedagogies and transformative learning spaces commonly associated with Indian liberal arts institutions could help thaw the chilly climate experienced by female college students. Although we had reason to believe, based on prior literature, that the pedagogical practices common to liberal arts institutions might help dismantle the chilly climate, our data preliminarily suggest that those practices are not always sufficient for achieving that goal. More specifically, both male and female students reported that everyone at LAC “gets a fair chance” and “there is no blatant sexism” at the school. At face value, that finding could be interpreted to suggest that transformative educational spaces can be effective at lessening the chilly climate. However, these generally expressed sentiments ended up being inconsistent with students’ very specific and detailed accounts of their school environment. Those accounts described classrooms where women were silenced and men were encouraged to speak, a campus where women were policed and men were given leeway with respect to school policies, and encounters where women were mocked and men were celebrated. Thus, it appears that students may have internalized institutional messages asserting that liberal arts universities promote inclusivity even while their actual classroom experiences showcased gender inequality. In other words, study findings suggest that the chilly climate toward women persists at LAC despite its commitment to critical pedagogies and the liberal arts. And while it is impossible to conclusively assert that the same is true at other liberal arts colleges, these case study results do cast doubt on the premise that institutional commitments to critical pedagogies are sufficient to thaw the chilly climate.

LIMITATIONS

This study is not without limitations. The first limitation pertains to the relationship between the participants and the first and second authors of this study. The first author was a faculty member at LAC and the participants may have been either current or former students of the first author. Although the first author did not conduct the interviews, it is possible that the participants’ responses were influenced by this potential conflict of interest. Additionally, the second author, who was a fourth-year student at the time of data collection, was a classmate of many of the participants. This dynamic also may have influenced the data collection process. Future studies should take deliberate steps to mitigate the impact of researcher-participant relationships on data collection and analysis. The second limitation concerns the sociocultural demographics of the participants. The primary demographic information collected included age, gender, and major specializations. However, other sociocultural aspects of participants’ identities—such as caste, socioeconomic status, language proficiency, and ability status—may have influenced their responses to the interview protocol. While the authors focused on exploring the presence of the chilly climate through the lens of participants’ gender identities, this analysis is insufficient for understanding how the chilly climate may be shaped by other sociocultural identities. Future research should adopt an intersectional approach that examines additional aspects of participants’ identities alongside gender.

Future research should also expand this analysis beyond this case study. A widespread examination of the effects of critical pedagogies and liberal arts models on the chilly climate is warranted. This could be accomplished via large-scale quantitative surveys as well as

through additional qualitative studies that triangulate data across multiple sources (e.g., interviews with staff, behavioral checklists), incorporate participant feedback on study findings (i.e., member checking), and employ structured methods of researcher reflexivity (e.g., maintaining reflexive journals during data collection and analysis). Despite these limitations, this study is important because it not only suggests that the chilly climate remains firmly entrenched within a particular Indian liberal arts institution, but it also implies that this entrenchment may be common in other HEIs as well. That warrants concern, but it also allows HEIs to acknowledge that additional change is needed and then work toward it. This research thus serves as an important springboard for future gender-equity efforts.

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AUTHOR CONTRIBUTION

J.S. conceptualized the study, developed the research design, facilitated the Focus Group Discussions, and led the overall research process. Additionally, J.S. participated as a coder in the qualitative analysis and worked with the other authors in drafting of the manuscript. A.B. co-developed the interview protocol, conducted the individual interviews, and participated as the second coder for the qualitative analysis. A.B. contributed to the theoretical framework and writing of the manuscript. M.H. provided theoretical and analytical guidance, data analysis and interpretation, writing of the results and discussion sections, external auditing of the codebooks, and critical comments, edits and revision of the manuscript. The authors are accountable for the accuracy and integrity of the submitted manuscript.

CONFLICT OF INTEREST

"The authors declare no conflict of interest."

DECLARATION OF USE OF AI IN SCIENTIFIC WRITING

The authors declare that AI was not used in any way during the preparation of this manuscript

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