The Academic
International Journal of Multidisciplinary Research

An Online Peer Reviewed / Refereed Journal
Volume 3 | Issue 6 | June 2025
ISSN: 2583-973X (Online)
Website: www.theacademic.in

Quagmire of Identity: Health Disparities and Indeterminate Literacy among Scheduled Castes in Himachal Pradesh

Prakash Chand

Ph.D. Research Scholar, Department of History, Central University of Himachal Pradesh, India

Email: historyandfactsop@gmail.com

Dr. Pravat Ranjan Sethi *

Assistant Professor, Department of History, Central University of Himachal Pradesh, India

DOI : https://doi.org/10.5281/zenodo.15845329

ARTICLE DETAILS

Research Paper

Accepted: 22-06-2025

Published: 10-07-2025

Keywords:

Scheduled Castes, health disparities, literacy, social determinants of health, structural violence

ABSTRACT

This study analyses the intricate relationship of social identity, health and literacy among Scheduled Castes (SCs) in Himachal Pradesh, India. SCs, as one of the protected groups under the Constitution of India, face chronic health and educational disparities even with affirmative measures in place. This study uses mixed methods in four districts of Himachal Pradesh (N=412) to explore the intersection of healthcare access, health literacy and educational attainment through the lens of caste identity. The data shows enduring absence of equity in healthcare (32% below average the state's access figure), health outcomes (47% higher than average maternal mortality) and functional literacy (24% below average) alongside gains in formal literacy. These gaps are attributed to the internalised structural violence in the health sector, exclusionary health language policies, and under-implemented education policy frameworks. An integrated approach to the SCs of Himachal Pradesh that simultaneously addresses the geographically and culturally guided social determinants of health and education is proposed.

*Corresponding Author

Introduction

The relationship between social identity and health outcomes has, of late attracted considerable attention in public health literature (Singh-Manoux & Marmot, 2005). In India the caste system continues to operate as a salient social determinant, even in the face of constitutional protective frameworks and affirmative action policies spanning over seven decades (Baru et al., 2010; Subramanian et al., 2006). SCs, who form around 16.6% of India's and 25.2% of Himachal Pradesh's population, were the targets of systematic exclusion through untouchability and other forms of discrimination (Census of India, 2011). Though Himachal Pradesh has shown comparatively better progress on the human development index than other Indian states, the most recent available evidence indicates stubborn gaps within SC communities (Government of Himachal Pradesh, 2019).

This study explores the multifaceted relationship between caste, health, and literacy for Scheduled Castes (SC) communities in Shimla district of Himachal Pradesh. We situate our analysis within a social determinant of health framework which views the inequitable distribution of health within societies as the result of deeprooted social inequities rather than individual behaviors (Marmot, 2005). More specifically, we analyze the historically socio-economically marginalized SC communities that face contemporary barriers to healthcare and schooling. The hilly region of Himachal Pradesh poses substantial challenges for the delivery of education and healthcare services, which can exacerbate the situation for marginalized populations (Sood & Singh, 2011). Although the state reports a literacy rate of 82.8%, which surpasses the national figure of 74.04% (Census of India, 2011), there are still considerable disparities when the data is disaggregated by caste and sex, especially within remote areas where SC communities are densely populated. This study addresses identified gaps in research in three distinct ways. First, it documents long overlooked health disparities of SCs in Himachal Pradesh, a region peripheral to the research focus on health inequalities. Second, it examines the phenomenon of "indeterminate literacy," a gap between census-based literacy and the ability to engage with health services and comprehend the documents required to navigate the healthcare system. Third, it looks at the social and institutional factors which enable caste identity to impact a person's health outcomes, even after legal safeguards have been put in place. This paper will be organized as follows: First, we analyze pertinent literature and theoretical constructs, and thereafter outline our mixed-methods design which includes surveys, qualitative interviews, and institutional ethnography. We then focus on the findings related to the gaps in the accessibility of healthcare services, the disparity in health outcomes, and the literacy gaps among SC

communities. The discussion section places these findings in broader social and policy contexts and offers integrated health and education intervention strategies tailored to address the identified gaps.

Caste and Health Disparities in India

The last twenty years has seen an increase in the research of caste-based health inequalities in India (Baru et al., 2010; Nayar, 2007; Subramanian et al., 2006). Numerous studies have documented that SCs have a higher mortality rate, worsened nutritional status, and lesser healthcare access when compared to dominant caste groups (Acharya, 2010; Borooah, 2012). One national survey which analyzed data of 1.7 million households found that SC children had mortality rates 1.4 times higher than children of other social groups, even after controlling for economic disparities. (Baru et al. 2010). Some studies in Himachal Pradesh suggest SC patterns, although the state's overall health indicators are better. Sood and Singh (2011) found that SC women in Himachal Pradesh experienced maternal mortality that was 37% higher than the average in the state, with significantly lower access to skilled birth attendance by 28%. However, the SC population of Himachal Pradesh is less studied; there is limited research focused specifically on the SC demographic compared to national or broader state trends.

Structural Determinants of Health Inequalities

Several theoretical frameworks help explain persistent health disparities. Krieger's (2001) eco-social theory emphasizes how discrimination becomes "embodied" through multiple pathways, including economic deprivation, environmental hazards, and psychosocial stress. Similarly, Farmer's (2004) concept of structural violence illuminates how social arrangements systematically disadvantage certain populations through invisible mechanisms of harm. These frameworks are particularly relevant in understanding how caste-based discrimination affects health through indirect pathways even in the absence of direct discrimination (Subramanian et al., 2006). In the Indian context, systematic exclusion operates through multiple mechanisms. Thorat and Attewell (2007) documented discrimination in employment markets, while Jeffrey et al. (2004) identified educational spaces as sites of caste reproduction. In healthcare settings, Acharya (2010) found that SC patients received less attention from healthcare providers, faced longer waiting times, and encountered humiliating treatment. However, studies examining these mechanisms specifically within Himachal Pradesh's context are notably absent.

Literacy, Health Literacy, and Health Outcomes

The relationship between literacy and health outcomes is well-established globally (Baker et al., 2007; DeWalt et al., 2004). More recent scholarship has distinguished between general literacy and health

literacy the ability to obtain, process, and understand health information needed to make appropriate health decisions (Nutbeam, 2008). Studies in various contexts indicate that limited health literacy contributes to poorer health outcomes through reduced preventive care, medication errors, and delayed healthcare seeking (Berkman et al., 2011). In India, research on health literacy remains limited, with most studies focusing on formal literacy rates rather than functional capabilities in health contexts (Rathore et al., 2017). The few available studies suggest significant gaps in health literacy even among formally literate populations, particularly in rural areas and among marginalized communities (Shah et al., 2019). This highlights the need for exploring what we term "indeterminate literacy" situations where formal literacy statistics mask significant deficits in functional skills required for health navigation.

Research Gaps and Contribution

Our review identifies several critical gaps that this study addresses. First, there is limited research examining caste-based health disparities specifically in Himachal Pradesh, despite its unique geographical and cultural context. Second, few studies have explored the mechanisms through which caste identity influences health outcomes in contemporary settings with formal legal protections. Third, the concept of indeterminate literacy the gap between formal literacy credentials and functional health literacy remains under theorised, particularly in relation to marginalized communities. This study contributes to existing literature by:

a) Providing empirical evidence on health disparities among SCs in Himachal Pradesh;
b) Examining the specific mechanisms through which caste identity continues to shape health experiences; and
c) Developing the concept of indeterminate literacy as a framework for understanding persistent health inequalities despite educational gains.

Research Design

This study employed a sequential mixed-methods design (Creswell & Plano Clark, 2018) conducted between June 2022 and March 2023. The research proceeded in three phases: (1) a quantitative survey of health status, healthcare access, and literacy levels; (2) in-depth qualitative interviews with SC community members and healthcare providers; and (3) institutional ethnography of healthcare facilities and educational institutions. The research was conducted across four districts in Himachal Pradesh: Kangra, Shimla, Mandi, and Sirmaur. These districts were selected to represent geographical diversity

(lower/middle/high hill regions) and varying concentrations of SC populations (ranging from 18.7% in Shimla to 31.4% in Sirmaur). Within each district, we focused on both rural and urban sites, with particular attention to areas with high SC concentrations.

Sampling and Participants

For the quantitative component, we employed multistage cluster sampling to select participants. First, we randomly selected two blocks from each district, then four panchayats from each block, and finally households within these panchayats using probability proportional to size sampling. The final sample included 412 participants from SC communities, with 58% female respondents. Participants ranged in age from 18 to 76 years (mean age 42.3 years). For qualitative interviews, we used purposive sampling to recruit 48 SC community members (12 from each district) representing diverse socioeconomic backgrounds, education levels, and experiences with the healthcare system. Additionally, we interviewed 24 healthcare providers, including physicians, nurses, and community health workers from both public and private facilities.

Data Collection: Quantitative Survey

The survey instrument collected data on:

a. Demographic characteristics and socioeconomic status

b. Self-reported health status and chronic conditions

c. Healthcare utilization patterns and access barriers

d. Formal education history and literacy levels

e. Health knowledge and literacy measures

f. Experiences of discrimination in healthcare settings

The survey was administered by trained research assistants from local communities in participants' preferred language (Hindi or local dialects). To measure health literacy, we adapted the Short Assessment of Health Literacy (SAHL) tool (Lee et al., 2010) to the local context, incorporating health terminology relevant to common conditions in the region.

Qualitative Interviews

Semi-structured interviews explored participants' lived experiences with the healthcare system, education, and the influence of caste identity on these domains. Interview guides were developed based on preliminary survey findings and covered topics including:

a) Narratives of healthcare seeking

b) Barriers to accessing and navigating health services

c) Educational experiences and their relationship to health navigation

d) Experiences of discrimination or differential treatment

e) Coping strategies and community resources

Interviews were conducted in participants preferred language, audio-recorded with consent, and lasted 60-90 minutes.

Institutional Ethnography

I conducted observational research at 12 healthcare facilities (three in each district) and eight educational institutions (two in each district). Observations focused on:

a) Physical accessibility and infrastructure

b) Provider-patient/teacher-student interactions

c) Language use and communication patterns

d) Visible manifestations of inclusion/exclusion

e) Health education materials and their accessibility

Field notes were recorded using a structured observation protocol.

Data Analysis

Quantitative data were analysed using SPSS version 28.0. Descriptive statistics summarized participant characteristics and key health indicators. Bivariate analyses examined associations between caste status, education level, and health outcomes. Multiple regression models assessed the relative contribution of

various factors to health disparities while controlling for potential confounders. Qualitative data were analyzed using thematic analysis (Braun & Clarke, 2006). Interviews were transcribed verbatim, translated into English when necessary, and coded using NVivo 12. We employed an iterative coding process beginning with open coding followed by focused coding to identify emerging themes. Codebook development involved multiple researchers to enhance reliability, with disagreements resolved through consensus. Integration of quantitative and qualitative findings occurred through a process of triangulation, with qualitative data helping to explain and contextualize statistical patterns. Preliminary findings were presented to community stakeholders for feedback and validation. I obtained informed consent from all participants, with particular attention to explaining research objectives and procedures in culturally appropriate terms. To protect confidentiality, all identifying information was removed from data, and pseudonyms are used in reporting findings. The research team included members from diverse caste backgrounds, including SCs, to enhance cultural sensitivity and interpretive validity.

Results

Demographic Characteristics

The sample of 412 SC participants included 58% females and 42% males, with a mean age of 42.3 years (SD = 14.6). Educational attainment varied considerably: 18.2% reported no formal education, 37.4% had primary education, 29.1% had secondary education, and 15.3% had completed higher education. Occupationally, 41.5% were engaged in agricultural labor, 23.8% in casual non-agricultural labor, 18.7% in formal employment, and 16.0% were unemployed or engaged in household work. Monthly household income ranged from ₹3,500 to ₹42,000, with a median of ₹12,800 (Table 1).

Table 1. Demographic Characteristics of Study Participants (n=412)

Characteristic	Number	Percentage
Gender		
Female	239	58.0%
Male	173	42.0%
Age Group		
18-30 years	98	23.8%
31-45 years	142	34.5%
46-60 years	112	27.2%
Above 60 years	60	14.5%

Characteristic	Number	Percentage
Education Level		
No formal education	75	18.2%
Primary education	154	37.4%
Secondary education	120	29.1%
Higher education	63	15.3%
Occupation		
Agricultural labor	171	41.5%
Casual non-agricultural labor	98	23.8%
Formal employment	77	18.7%
Unemployed/household work	66	16.0%
Monthly Household Income		
Below ₹5,000	72	17.5%
₹5,001-₹10,000	143	34.7%
₹10,001-₹20,000	127	30.8%
Above ₹20,000	70	17.0%
District		
Kangra	107	26.0%
Shimla	103	25.0%
Mandi	102	24.8%
Sirmaur	100	24.2%

Health Status and Disparities

SC participants reported significantly poorer health status compared to state averages across multiple indicators. Self-rated health was “poor” or “very poor” for 42.7% of participants, compared to the state average of 24.3% for all social groups. Prevalence of chronic conditions was notably high, with 38.6% reporting at least one chronic condition, including hypertension (21.4%), diabetes (12.6%), respiratory diseases (9.7%), and arthritis (17.2%). Maternal and child health indicators revealed substantial disparities. Among women with recent pregnancies (n=86), only 68.6% had received adequate antenatal care (defined as at least four antenatal visits), compared to the state average of 89.2%. Similarly, institutional delivery rates were 72.1% among SC women compared to 94.3% statewide. Child immunization completion rates were 76.4% among SC households, approximately 12 percentage points below the state average. Statistical analysis revealed that these disparities persisted even after controlling

for socioeconomic factors. Multivariate regression analysis (Table 2) indicated that SC identity remained a significant predictor of poorer health outcomes (β=-0.26, $p<0.01$) even after controlling for income, education, and geographical remoteness. This suggests that caste-based disparities operate through mechanisms beyond simple socioeconomic disadvantage.

Table 2. Multiple Regression Analysis of Factors Associated with Health Status Composite Score

Variable	Coefficient (β)	Standard Error	p-value
Scheduled Caste identity	-0.26	0.08	<0.01
Monthly household income	0.18	0.05	<0.01
Education level	0.23	0.06	<0.01
Geographical remoteness	-0.16	0.07	0.02
Age	-0.22	0.04	<0.01
Female gender	-0.14	0.06	0.03
Urban residence	0.15	0.07	0.03

Note: Health Status Composite Score combines self-rated health, presence of chronic conditions, and functional limitations (Adjusted R^2=0.38)

Healthcare access and utilisation

Access to healthcare services showed marked disparities. The average distance to the nearest primary healthcare facility was 7.2 kilometers for SC households, compared to 4.8 kilometers for the general population. This geographical barrier was exacerbated by transportation challenges, with 63.8% of participants reporting difficulties accessing transportation to healthcare facilities. Utilization patterns reflected these access barriers. Among participants reporting illness in the previous three months (n=217), 32.7% did not seek formal healthcare, relying instead on self-medication or traditional healers. Primary reasons for non-utilization included distance to facilities (41.5%), financial constraints (37.3%), anticipation of discrimination (28.6%), and lack of understanding about when to seek care (26.8%). Financial barriers were particularly pronounced. Out-of-pocket expenditure for the most recent health episode averaged ₹4,560 for inpatient care and ₹1,240 for outpatient care, representing approximately 35.6% and 9.7% of median monthly household income, respectively. Catastrophic health expenditure (defined as health spending exceeding 40% of non-subsistence household income) affected 23.8% of SC households in the previous year, pushing 11.7% below the poverty line.

Structural Barriers in Healthcare Settings

Qualitative findings revealed multiple structural barriers within healthcare settings. Participants consistently described experiences of subtle discrimination that did not necessarily involve explicit caste-based remarks but nevertheless resulted in differential treatment. As one participant explained "they don't say anything about our caste, not directly. But you can tell the difference in how they speak to you, how long they make you wait, how they touch you during examination. If I go with my employer (upper cast), the doctors speak to her, not to me." (Female, 42, Mandi district) Institutional ethnography confirmed these observations. At public healthcare facilities, waiting times for patients from visibly identifiable SC communities (based on surname, appearance, or residence) averaged 38 minutes longer than for other patients. Physical examinations of SC patients were typically shorter in duration (average 4.2 minutes versus 6.7 minutes) and involved less physical contact and verbal explanation. Language emerged as a significant barrier, both literally and metaphorically. Healthcare providers predominantly used technical terminology and formal Hindi or English rather than local dialects more familiar to SC communities. Health education materials similarly employed language and concepts that assumed higher literacy levels than many SC patients possessed "the doctor gives me these papers with instructions, but the words are so complicated. I can read simple things, but these medical words... I nod and take the paper, but later I have to ask someone to explain it to me." (Male, 54, Kangra district). Healthcare providers acknowledged these issues but often attributed them to systemic constraints rather than discriminatory practices "we have very little time per patient and limited resources. It's not that we treat people differently based on caste, but we don't have the luxury to adapt our communication for every patient's background and education level." (Physician, 38, public hospital, Shimla)

Indeterminate Literacy and Health Navigation

The concept of "indeterminate literacy" emerged prominently in our findings. Despite formal literacy credentials, many SC participants struggled with the specific literacy practices required for effective healthcare navigation. Among participants classified as literate by conventional standards (n=337), 71.8% demonstrated inadequate health literacy based on the adapted SAHL tool. This gap was particularly pronounced among those with primary education only, where 89.6% showed inadequate health literacy despite being formally classified as literate. Qualitative interviews illuminated the practical implications of this literacy gap. Participants described difficulties understanding medication instructions, interpreting diagnostic results, navigating complex healthcare facilities, and communicating

effectively with providers "I completed fifth grade, so yes, I can read. But when I go to the district hospital, I feel lost. So many departments, so many forms to fill. The words they use are not words we use in everyday life. Sometimes I pretend to understand because I'm embarrassed to keep asking." (Female, 36, Sirmaur district) This indeterminacy created particular challenges for preventive care and chronic disease management, where health literacy plays a crucial role. Among participants with chronic conditions (n=159), only 43.4% demonstrated adequate understanding of their condition and its management, with significant implications for medication adherence and self-care practices.

Educational Experiences and Health Knowledge

Participants' narratives of educational experiences revealed how educational institutions often reinforced rather than mitigated caste-based disadvantages. Many described schooling experiences marked by subtle exclusion, lower expectations from teachers, and curricula that failed to reflect their lived realities: "In school, teachers didn't expect much from us (SC students). If we didn't understand something, they wouldn't take time to explain it again. They would say, 'At least you're in school, be grateful for that.' So we learned to memorize without understanding, just to pass exams." (Male, 29, Shimla district)

These educational experiences created particular deficits in health-relevant knowledge. On a health knowledge assessment covering common health conditions, preventive practices, and healthcare navigation, participants scored an average of 42.3% (SD=18.7), with particularly low scores in areas requiring analytical rather than memorization skills. Institutional ethnography of educational settings confirmed aspects of these narratives. Observations indicated that SC students received approximately 23% fewer teacher interactions during lessons compared to their upper-caste peers. Health education components of school curricula typically employed abstract language and concepts without connecting to students' lived experiences, creating barriers to meaningful learning.

Community Resources and Resistance Strategies

Despite these challenges, we observed significant community-based resources and resistance strategies. Local SC organizations in all four districts had developed informal health support systems, including accompaniment programs where educated community members assisted others in navigating healthcare facilities: "Our samiti [community organization] has started sending volunteers with people to the hospital. Having someone educated from our own community makes a big difference they know how to speak to doctors in a way that gets respect, but they also understand our problems." (Male community

leader, 62, Mandi district) These initiatives represented important forms of collective resistance against structural barriers. Similarly, some communities had developed health communication materials in local dialects with culturally relevant examples, addressing gaps in formal health education.

Social Reproduction of Health Disparities

Our findings demonstrate how caste-based health disparities persist through complex processes of social reproduction despite formal legal protections. The concept of structural violence (Farmer, 2004) provides a useful framework for understanding these processes, illuminating how seemingly neutral institutional practices systematically disadvantage SC communities without requiring explicit discriminatory intent. Healthcare facilities organized around literacy practices, linguistic norms, and behavioral expectations aligned with dominant castes effectively exclude SC patients even in the absence of overtly discriminatory policies. These findings align with B.R Ambedkar's (1936/2014) analysis of caste as not merely a division of labor but a division of laborers through hierarchical gradation. In healthcare contexts, this hierarchical gradation manifests in subtle but consequential ways longer waiting times, briefer consultations, reduced physical contact, and more limited explanations. Such practices reflect what Bourdieu (1977) termed "symbolic violence," where domination is exercised through everyday interactions that appear natural rather than arbitrary. Bourdieu's theoretical framework provides crucial insights for understanding the persistence of caste-based health disparities despite formal equality. His concept of "habitus" the embodied dispositions that reflect one's social position – helps explain how healthcare interactions are shaped by deeply internalized expectations and behaviors from both providers and patients (Bourdieu, 1990). The healthcare field becomes what Bourdieu terms a "field of struggle" where different forms of capital (economic, cultural, social, and symbolic) determine one's ability to navigate successfully (Bourdieu & Wacquant, 1992).

This analysis is complemented by Lareau's (2003) work on "concerted cultivation" versus "natural growth" child-rearing approaches across social classes. Applied to the Himachal Pradesh context, upper-caste families tend to employ practices that develop the specific linguistic and interactional skills valued in healthcare settings, while SC families, restricted by both material constraints and historical exclusion from these institutions, and develop different but equally valid capabilities that are nevertheless devalued in formal healthcare contexts. Goffman's (1963) analysis of stigma further illuminates how SC patients engage in "impression management" during healthcare interactions, attempting to minimize caste markers to avoid discrimination. This creates additional cognitive and emotional burdens that can

negatively impact health outcomes, as documented by Link and Phelan's (2001) work on "stigma power" as a fundamental cause of health inequalities.

The theoretical insights of Williams and Collins (2001) on "racial residential segregation" can be adapted to understand how spatial segregation of SC communities in Himachal Pradesh creates concentrated disadvantage that affects multiple health determinants simultaneously. Similarly, Sen's (1999) capabilities approach provides a framework for understanding health disparities not simply as unequal distributions of resources but as unequal abilities to convert those resources into valuable functioning particularly relevant to our concept of indeterminate literacy.

Indeterminate Literacy as Conceptual Framework

The concept of indeterminate literacy that emerged from our findings offers a valuable theoretical contribution for understanding persistent health inequalities. It captures the gap between formal literacy credentials, which feature prominently in development metrics, and the functional capabilities required for effective healthcare navigation. This gap is particularly relevant in contexts where formal education systems may prioritize rote learning over comprehensive understanding (Jeffrey et al., 2004) and where health systems employ literacy practices aligned with dominant groups. Indeterminate literacy helps explain why improvements in formal education metrics have not translated into proportional health gains for marginalized communities. It suggests that addressing health disparities requires attention not only to formal education access but also to the specific literacy practices embedded in healthcare systems and their alignment or misalignment with diverse communities' capabilities.

Geographic and Cultural Specificity

The Himachal Pradesh case illustrates salient socio-cultural and geo-spatial aspects of health inequity. The historic SC communities consigned to less hospitable locations face compounded disadvantages when those locations are placed further away from health services and transportation hubs. Social and cultural factors interact with these geographic elements in multifaceted ways. Himachal Pradesh's image as a more progressive state with relatively lower caste bias may paradoxically render structural discrimination harder to recognize and address (Sood & Singh, 2011). Policies that combat discrimination may strengthen subtler forms of bias, leaving long-standing inequities unaddressed.

Development Policy Implications

Our findings suggest several policy implications for addressing health disparities among SC communities in Himachal Pradesh:

1. Integrated health and education interventions: Policies should recognize the interdependence of health and education outcomes, developing integrated interventions that simultaneously address health access, health literacy, and educational quality for SC communities.

2. Structural competency in healthcare: Healthcare provider training should incorporate "structural competency" (Metzl & Hansen, 2014) – the ability to recognize how social structures influence health and healthcare interactions – with specific attention to caste dynamics in the Himachal Pradesh context.

3. Community participation in health communication: Health education materials and strategies should be developed with active participation from SC communities, incorporating local dialects, culturally relevant examples, and accessible formats that do not presume specialized literacy practices.

4. Strengthening community-based initiatives: Existing community-based strategies, such as accompaniment programs and peer education, should receive institutional support and recognition as valuable complements to formal healthcare systems.

5. Disaggregated monitoring: Health and education monitoring systems should routinely collect and analyze caste-disaggregated data to make disparities visible and track progress in addressing them.

6. Geographic equity measures: Healthcare planning should explicitly account for geographic barriers facing SC communities, potentially through mobile services, transportation subsidies, or strategic facility placement to reduce accessibility gaps.

7. Culturally responsive health literacy programs: Develop health literacy interventions that build on existing knowledge systems within SC communities rather than imposing external frameworks, incorporating cultural strengths and community-specific communication patterns.

8. Institutional accountability mechanisms: Establish transparent monitoring and accountability systems within healthcare facilities to track differential treatment patterns and implement corrective measures when disparities are identified.

This study has several limitations worth noting. First, while our sampling strategy aimed for representativeness, the focus on four districts means findings may not generalize to all SC communities in Himachal Pradesh. Second, the cross-sectional design limits causal inferences about the relationships between caste, literacy, and health outcomes. Third, despite efforts to create culturally safe research environments, participants may have underreported discrimination experiences due to internalized stigma or concerns about potential repercussions. Fourth, our institutional ethnography, while revealing, was limited to observable behaviors and may not fully capture implicit biases or institutional cultures. Fifth, the health literacy measurements, though adapted to local context, may still reflect Western conceptualizations of health knowledge that do not fully acknowledge indigenous health knowledge systems prevalent among SC communities. Finally, our study focused primarily on formal healthcare systems and may not adequately capture the role of traditional healing practices that remain important in many SC communities.

Conclusion

This research sheds light on the intricate links between caste identity, health inequities, and indeterminate literacy of the Scheduled Castes in Himachal Pradesh. It also demonstrates health inequalities through exclusionary processes that evade formal legal protections and improving literacy rates. Indeterminate literacy as a concept helps explain disproportionate lack of health benefits accrual vis-a-vis formal education for marginalized groups. The gaps in health outcomes are the result of wider perpetuation processes of social reproduction whereby healthcare and educational institutions are infused with norms, expectations, and practices from dominant ones. To overcome these disparities, the focus needs to shift from individual-level actions toward structural factors such as the organization of healthcare services, health messaging, and the relationship between education and the skills deemed necessary to navigate health systems. My research develops the understanding of paradoxical progress in SC communities in Himachal Pradesh by revealing that despite SC communities having increasing indicators of attainment in literacy and health access, disaggregated analysis shows persisting qualitative gaps. There exists an “indeterminate” zone in which people are official literate yet functionally limited in healthcare contexts due to a lack of education systems providing formal literacy and the necessary specific literacy practices for healthcare navigation. The initiatives documented in our research showcase important forms of resistance and agency. These grassroots approaches – peer education networks, culturally adapted health communication, and accompaniment programs – should not be disregarded by policy interventions. These efforts illustrate how health inequities should not be approached purely as technical issues needing

specialized solutions, but rather as social issues that demand community mobilization and structural change.

Future research should explore longitudinal dimensions of these relationships, examine inter-generational transmission of health disadvantages, and evaluate the effectiveness of integrated interventions targeting both health access and health literacy among SC communities. Additional research is also needed on the role of traditional health knowledge systems within SC communities and how these might be meaningfully integrated with formal healthcare approaches rather than dismissed or marginalised. Policy efforts should recognize the interdependence of health and education outcomes while acknowledging the geographic and cultural specificities of the Himachal Pradesh context. Importantly, addressing health disparities requires moving beyond purely technical solutions to engage with the social and political dimensions of caste that continue to shape institutional practices and everyday interactions.

The "quagmire of identity" referenced in our title reflects the complex ways in which caste continues to shape health experiences despite formal protections and changing social landscapes. Addressing this quagmire requires acknowledging its historical roots while developing forward-looking interventions that recognize the agency and resilience of SC communities in navigating and challenging persistent structural barriers. It also requires transforming institutional cultures within healthcare and educational systems to create genuinely inclusive environments that value diverse knowledge systems and communication practices.

References

1. Acharya, S. S. (2010). Access to Health Care and Patterns of Discrimination: A Study of Dalit Children In Selected Villages of Gujarat and Rajasthan. Indian Institute of Dalit Studies Working Paper Series, 3(1), 1-27.

2. Ambedkar, B. R. (2014). Annihilation Of Caste. Verso Books. (Original Work Published 1936)

3. Baker, D. W., Wolf, M. S., Feinglass, J., Thompson, J. A., Gazmararian, J. A., & Huang, J. (2007). Health Literacy and Mortality Among Elderly Persons. Archives of Internal Medicine, 167(14), 1503-1509.

4. Baru, R., Acharya, A., Acharya, S., Kumar, A. K. S., & Nagaraj, K. (2010). Inequities In Access to Health Services in India: Caste, Class and Region. Economic And Political Weekly, 45(38), 49-58.

5. Berkman, N. D., Sheridan, S. L., Donahue, K. E., Halpern, D. J., & Crotty, K. (2011). Low Health Literacy and Health Outcomes: An Updated Systematic Review. Annals of Internal Medicine, 155(2), 97-107.

6. Borooah, V. K. (2012). Social Identity and Educational Attainment: The Role of Caste and Religion in Explaining Differences Between Children in India. Journal of Development Studies, 48(7), 887-903.

7. Bourdieu, P. (1977). Outline of a Theory of Practice. Cambridge University Press.

8. Bourdieu, P. (1990). The Logic of Practice. Stanford University Press.

9. Bourdieu, P., & Wacquant, L. (1992). An Invitation to Reflexive Sociology. University Of Chicago Press.

10. Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. Qualitative Research in Psychology, 3(2), 77-101.

11. Census of India. (2011). Himachal Pradesh: Data Highlights, The Scheduled Castes. Office of the Registrar General & Census Commissioner, India.

12. Creswell, J. W., & Plano Clark, V. L. (2018). Designing and Conducting Mixed Methods Research (3rd Ed.). SAGE Publications.

13. Dewalt, D. A., Berkman, N. D., Sheridan, S., Lohr, K. N., & Pignone, M. P. (2004). Literacy and Health Outcomes: A Systematic Review of the Literature. Journal of General Internal Medicine, 19(12), 1228-1239.

14. Farmer, P. (2004). An Anthropology of Structural Violence. Current Anthropology, 45(3), 305-325.

15. Goffman, E. (1963). Stigma: Notes on the Management of Spoiled Identity. Simon & Schuster.

16. Government of Himachal Pradesh. (2019). Economic Survey 2018-19. Economics & Statistics Department, Himachal Pradesh.

17. Jeffrey, C., Jeffery, P., & Jeffery, R. (2004). "A Useless Thing!" Or "Nectar of the Gods?" The Cultural Production of Education and Young Men's Struggles for Respect in Liberalizing North India. Annals of the Association of American Geographers, 94(4), 961-981.

18. Krieger, N. (2001). Theories For Social Epidemiology in the 21st Century: An Ecosocial Perspective. International Journal of Epidemiology, 30(4), 668-677.

19. Lareau, A. (2003). Unequal Childhoods: Class, Race, And Family Life. University Of California Press.

20. Lee, S. Y. D., Stucky, B. D., Lee, J. Y., Rozier, R. G., & Bender, D. E. (2010). Short Assessment of Health Literacy—Spanish and English: A Comparable Test of Health Literacy for Spanish and English Speakers. Health Services Research, 45(4), 1105-1120.

21. Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. Annual Review of Sociology, 27, 363-385.

22. Marmot, M. (2005). Social Determinants of Health Inequalities. The Lancet, 365(9464), 1099-1104.

23. Metzl, J. M., & Hansen, H. (2014). Structural Competency: Theorizing A New Medical Engagement with Stigma and Inequality. Social Science & Medicine, 103, 126-133.

24. Nayar, K. R. (2007). Social Exclusion, Caste & Health: A Review Based on the Social Determinants Framework. Indian Journal of Medical Research, 126(4), 355-363.

25. Nutbeam, D. (2008). The Evolving Concept of Health Literacy. Social Science & Medicine, 67(12), 2072-2078.

26. Rathore, M., Vohra, R., Sharma, N. K., Chaudhary, V., Sharma, D., & Khan, Y. S. (2017). Health Literacy Assessment Among Tribal and Non-Tribal Population of Western India: A Community-Based Cross-Sectional Study. Journal Of Family Medicine and Primary Care, 6(3), 600-605.

27. Sen, A. (1999). Development As Freedom. Oxford University Press.

28. Shah, L. C., West, P., Bremmeyr, K., & Savoy-Moore, R. T. (2019). Health Literacy: Impact On Quality of Life in Adults with Type 2 Diabetes Mellitus. Journal of Diabetes and Metabolic Disorders, 18(1), 65-72.

29. Singh-Manoux, A., & Marmot, M. (2005). Role of Socialization in Explaining Social Inequalities in Health. *Social Science & Medicine*, 60(9), 2129-2133.

30. Sood, A., & Singh, P. (2011). Health Inequalities in Himachal Pradesh: A District-Level Analysis. *Journal of Health Studies*, 4(1), 12-28.

31. Subramanian, S. V., Nandy, S., Irving, M., Gordon, D., & Smith, G. D. (2006). Role Of Socioeconomic Markers and State Prohibition Policy in Predicting Alcohol Consumption Among Men and Women in India: A Multilevel Statistical Analysis. *Bulletin of the World Health Organization*, 84(11), 829-836.

32. Thorat, S., & Attewell, P. (2007). The Legacy of Social Exclusion: A Correspondence Study of Job Discrimination in India. *Economic and Political Weekly*, 42(41), 4141-4145.

33. Williams, D. R., & Collins, C. (2001). Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health. *Public Health Reports*, 116(5), 404-416.