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Ageing and Elderly Health in Indigenous Cultures: Researching the Perspectives and Realities

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ABSTRACT This study examines ageing and elderly health in tribal and indigenous communities, bridging subjective experiences and objective health data. It uses mixed methods to analyse qualitative narratives and the 2020 report of India's Longitudinal Ageing Study (LASI), published by the International Institute for Population Sciences and others. Tribal elders report fewer chronic conditions yet lower life satisfaction than non-tribal groups, a paradox linked to underreporting, cultural health views, and healthcare access gaps. The analysis highlights indigenous ontologies framing elders as cultural custodians and epistemologies prioritising holistic well-being over biomedical metrics. Colonial disruptions and socio-economic shifts are shown to erode elder status, compounding health inequities. By advocating integrating indigenous knowledge with blended methodological frameworks, the study underscores the need for research and policies addressing ageing's cultural dimensions. Conclusions stress interdisciplinary policies aligning healthcare with indigenous values to ensure equitable elderly care.

INTRODUCTION

Old Age: A Value-laden Phenomenon with Veneration Versus Devaluation

The societal perception of old age is a complex interplay of cultural values, historical contexts, and socio-economic structures. While some cultures revere older adults as custodians of wisdom and tradition, others marginalise them as symbols of decline and dependency. This essay critically examines how proverbs, sayings, and cultural tenets reflect these dual narratives, drawing on cross-cultural evidence to argue that ageing is simultaneously cherished and stigmatised, contingent on societal norms.

Old Age as Cherished and Valuable

In collectivist societies, cultural narratives often valorise old age through proverbs and practices that emphasise respect and intergenerational solidarity. Confucian-influenced East Asian cultures uphold filial piety, encapsulated in the proverb, "Respect the old, cherish the young" (Kornadt et al. 2022: 6), a sentiment echoed in the Chinese adage, "Respect the old and cherish the young", which underscores societal balance by valuing elders' wisdom alongside youth's potential. Similarly, African proverbs such as, "The youth walk faster, but the elderly know the road" and "A wise (old) man fills his brain before emptying his mouth" position elders as guides whose experiential knowledge surpasses youthful dynamism (Issahaku 2022; Löckenhoff et al. 2009). These proverbs align with Ghanaian traditions that revere elders as "powerful seniors", symbolised by the Dagbanli saying, "*What an elder can see while sitting down, a young man cannot see even if he climbs an oak tree*" (Issahaku 2022: 8). Such tenets foster familial harmony and social cohesion, particularly in contexts like Singapore, where active ageing norms ("keep moving, keep learning") reinforce elders' roles as engaged contributors (Shiraz et al. 2020).

The Scandinavian proverb, "Old wood burns the best", metaphorically captures this reverence, likening elders' accumulated experience to seasoned timber that burns efficiently, a nod to hierarchical societies where age commands authority (Löckenhoff et al. 2009). Similarly, the Italian saying, "An old friend is a gold wine; the older, the better", reflects how long-standing relationships, like aged wine, gain value over time, mirroring collectivist ideals of intergenerational solidarity (Shiraz et al. 2020).

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Old Age as Regressive and Worthless

Conversely, individualist cultures often propagate narratives of ageing as a decline. Western sayings like, "You cannot teach an old dog new tricks" (Kornadt et al. 2022: 6) reflect stereotypes of incompetence, while phrases such as "silver tsunami" pathologise ageing populations as economic burdens (Kornadt et al. 2022). These narratives are rooted in gerontophobic discourses that frame ageing as a "diminished state", exacerbated by infantilising language (for example, "sweet little woman"; Gendron et al. 2015) and workplace ageism.

Even in collectivist contexts, modernisation introduces ambivalence. The Hindi term "*Sathiya Gaya*" (literally, "crossed sixty") dismisses elders who defy societal norms as irrational, reflecting gerontophobic tropes akin to Western decline narratives (Gendron et al. 2015). Similarly, the derogatory Hindi proverb, "*Buddhi Ghori, Laal Lagam*" (the old mare with red reins) ridicules elders who pursue non-conformist aspirations, paralleling gendered ageism that pressures women to maintain youthfulness (Bergeron and Lagacé 2021; Shiraz et al. 2020). These sayings reveal how cultural reverence often coexists with systemic marginalisation, as seen in Singapore, where elders face stigmatisation as financially dependent (Shiraz et al. 2020).

The Irish proverb, "With age comes wisdom, but sometimes age comes alone", humorously critiques the assumption that ageing inherently confers wisdom, aligning with Löckenhoff et al.'s (2009) finding that societal respect for elders does not always correlate with perceived personal growth.

Cultural Dualities and Resistance

The coexistence of veneration and stigmatisation reveals cultural contradictions. The African proverb, "The aged tree may fall, but the young shoot may wither", acknowledges vulnerabilities across generations, mirroring Löckenhoff et al.'s (2009) observation that universal physical decline coexists with culturally specific respect. Similarly, the Ethiopian proverb, "An old man's advice is gold if you know how to take it", balances reverence with caution, reflecting the tension between collectivist respect and individual discernment (Kornadt et al. 2022).

Elders themselves often resist ageist tropes. Hindi counter-proverbs like, "*Dil ko dekho, Chehra naa dekho*" (Look at the heart, not the face) and "*Umar pachpan ka, dil bachpan ka*" (Age is fifty-five, young at heart) challenge stereotypes by emphasising agency and vitality. These sayings align with internalised resistance to ageism, where elders distance themselves from "decline" narratives (Gendron et al. 2015).

One can conclude that cultural narratives of ageing are neither monolithic nor static. Proverbs and sayings reflect societal values that alternately celebrate elders as wise leaders or reduce them to burdens. While collectivist traditions promote respect, individualist norms pathologise ageing, revealing how economic and demographic shifts reshape perceptions. Critical gerontology, as advocated by Zeilig (2011), must challenge these binaries, advocating policies that reconcile cultural reverence with structural support. Only then can societies transcend ageist tropes and affirm the intrinsic value of later life.

Objective Dimensions of Being Old

From an academic and layman's perspective, being old and ageing directly relate to chronological age and a person's specific physical status. Biological ageing processes, encompassing wear-and-tear theories and cellular senescence, provide a basis for understanding physiological changes over time (Blackburn et al. 2015 Hayflick 2007; López-Otín et al. 2013). Chronological age is a pivotal reference point in societal studies, influencing expectations related to various life stages, such as education and retirement (U.S. Census Bureau 2021). However, the reference to chronological age often fails to address how people in different societies and contexts experience ageing or the stages of their lives. Here lies the importance of looking at the social construction of the subjective construction of age and the ageing process. Researchers such as Rowe and Kahn (1997) thus advocate that integrating biological and psychosocial factors is crucial for a more nuanced understanding of ageing.

Ageing is a demographic phenomenon in which reductions in mortality follow a reduction in fertility. This process then leads to a relative reduction in the children's population and an increase in the share of people in the main working-age and older person groups. Though this phenomenon represents an achievement in increased

longevity, it poses challenges in health and the economic domains. The UN Population Division (2020) indicates that people 65 years or above might double globally by 2050, with a parallel decline in the number of persons under 25. While many elderly people would need care and support, countries across the globe are not equipped with the required infrastructures to cope with the challenge. The situation has become increasingly complex due to factors like the transition in family structure, location, and social disintegration. Urbanisation, migration, employment conditions, social and cultural transitions, and changes in economic resources and pursuits are some leading causes that generate such contexts.

In consonance with the demographic transition, India has also been experiencing an epidemiologic transition where the leading causes of diseases and deaths have shifted. At present, chronic and degenerative diseases are becoming the leading causes of death attached to an increase in longevity (Arokiasamy 2018).

Subjective Perspectives of Being Old

The subjective experience of being old often diverges from chronological age, as exemplified by the concept of "age identity", where individuals may feel younger than they actually are (Dorelaitienë 2013). This perception can profoundly affect health behaviours, as those who perceive themselves as younger are more likely to adopt healthier lifestyles and report greater life satisfaction (Browning et al. 2023). Lachman (2004) highlights that perceived age impacts mental well-being and self-esteem, ultimately influencing health outcomes. Side by side, the cultural factors significantly shape these perceptions. In collectivist cultures, such as many indigenous societies, older adults are celebrated as custodians of wisdom and tradition (Cuddy et al. 2005). In contrast, individualistic societies often prioritise youth, leading to negative stereotypes about being old (Baars 2016). These cultural frameworks shape both self-identity and societal narratives regarding the value of age.

The Rationale of the Study

Ageing is a multifaceted phenomenon shaped by the interplay of subjective experiences, biological processes, and sociocultural contexts. In tribal and indigenous societies, where collectivist values often prevail, cultural traditions, social norms, and historical ideologies are closely tied to perceptions of ageing. These factors influence how older individuals interpret their roles, status, and lived experiences.

Colonialism has been associated with transformations in the social, cultural, economic, and political structures of tribal and indigenous communities. Such shifts have implications for intergenerational dynamics, including the roles and societal valuation of older members. For instance, changes in traditional practices may alter long standing norms that historically reinforced the status and dignity of elderly populations.

Existing anthropological and gerontological research has not extensively explored the relationship between subjective interpretations of ageing (for example, identity, self-perception) and objective indicators (for example, health, socioeconomic conditions). This gap is particularly evident in studies of tribal populations, where holistic examinations of ageing that integrate both perspectives remain limited.

To address this gap, this study examines ageing among elderly individuals in tribal India through a dual lens of subjective experience and objective reality. Combining qualitative insights from existing literature with quantitative data, the analysis aims to identify how cultural frameworks, historical legacies (for example, colonialism), and sociostructural factors intersect to shape ageing experiences in these communities. The findings may contribute to broader discourses on ageing by highlighting context-specific dynamics often underrepresented in mainstream research.

Objective of the Study

The study has three objectives as follows.

1. To discuss the various ways to deliberate issues related to perception and the manifestation of age, ageing, and becoming old among tribal and indigenous societies across the world using scholarly literature and debates delving into the ontological and the epistemological perspectives.
2. To examine the objective aspects of health situations and their related aspects among the tribal population in India

3. To relate the objective aspects of health with the subjective aspects among the tribes and indigenous population.

METHODOLOGY

The study is based on secondary data that includes the LASI India 2020 report and a substantial number of literature reviews. Available articles, book chapters, and books were retrieved from the web. Articles were mainly selected from reputed sources like journals indexed in SCOPUS and the Web of Sciences. Some of the keywords used to search web resources were 'indigenous elderly', 'ageing among tribes and indigenous people', 'health status among tribes and indigenous people', 'social/cultural significance/construction of old age among tribes and indigenous people', 'modernisation and elderly health among tribes and indigenous people', and so on.

Articles and book chapters containing abstracts were initially selected for review. After a quick reading of the abstracts, the articles in which the abstract mentioned the focus of the study that aligned with the objective were selected for final review. Besides, some literature on the theoretical underpinning of ontological and epistemological perspectives was also included.

Software like ChatGPT, Deep Seek, and Adobe AI Assistance were used to list the significant points from each piece of literature. The soft copies of the selected articles and chapters were fed into these software systems for initial review, from which critical queries were formulated for further examination with the AI tools. Thus, the final outputs were the results of meticulously crafted queries after going through several steps to achieve authenticity and logical relevance. The Chi-square tests on the LASI-2020 quantitative data were done using AI tools.

RESULTS

The Health Status of Tribal Elderly in India

An Introduction to the LASI India 2020 Data

The LASI uses internationally comparable research methods to gather longitudinal data on the disease burden, functional health, healthcare access, and older adults' social and economic well-being. Among the parameters engaged in the LASI project, a few crucial parameters have been selected for this study to assess the health status of the scheduled tribe population above the age of 60 in comparison to the health status of people of other social categories. They include self-reported health status, self-reported diagnosed chronic health conditions, cardiovascular diseases, diabetes mellitus, high cholesterol, and any bone/joint disease recorded. The prevalence of cardiovascular diseases (CVDs) is based on self-reported diagnoses of hypertension, stroke, or chronic heart disease. Further, life satisfaction, level of activeness, and the coverage of the social security scheme were also included in the analysis.

Table 1 presents some crucial parameters on health and other aspects of the scheduled tribes and other social category populations, such as scheduled caste, other backward classes, and communities that do not fall within these categories (termed as "Others") for those over 60. The table includes the number of populations enumerated under each category and all of India's numbers, including the percentages. Further, the table also shows the percentage difference between the all-India score and the specific category in each of the parameters enumerated. Where the difference is less than the national average percentage, the figure is presented in negative numbers, otherwise, the number is positive.

Table 1 reveals that in the case of self-rated poor health status, the ST population has the lowest percentage of people rating their health as poor, followed by the "Others". Among the Scheduled Caste, 3.3 percent more people than the national average rated their health as poor. Among the STs, the percentage of people with poor health is 5.8 percent less than the national average.

In the case of cardiovascular diseases, compared to the national average, 15.5 percent fewer tribal people suffer from these diseases. Among the SC, only 5 percent fewer people suffer from these diseases than the national average. Similarly, the table also reveals that ST people suffer from diabetes mellitus 8.1 percent less than the national average, followed by the SC with 4.8 percent less than the national average. One can see a similar trend regarding high cholesterol count and any bone disease. Significantly, in the case of eye problems, the percentage of sufferers is

Table 1: Health status, satisfaction levels, and social security coverage of people aged > 60 in India (Extracted from LASI, India Report 2020)

Measured criteria	*Percentage distribution of people aged > 60 within social categories (Numbers within parentheses are the sample size in the category)*				
Parameters	*Scheduled Tribe(5,173)*	*Scheduled Castes (5,140)*	*Other Backward Class (11,886)*	*Others (9,265)*	*All India (31,464)*
Poor health status (Self-rated)	18.4	27.5	25.4	21.7	24.2
All India versus Category	-5.8	3.3	1.2	-2.5	0
Cardiovascular diseases	19.1	29.6	34.9	42.2	34.6
All India versus Category	-15.5	-5	0.3	7.6	0
Diabetes Mellitus	6.1	9.4	15.9	17.0	14.2
All India versus Category	-8.1	-4.8	1.7	2.8	0
High cholesterol	0.7	1.6	2.6	3.4	2.5
All India versus Category	-1.8	-0.9	0.1	0.9	0
Any bone/Joint disease	11.7	17.6	20.1	19.7	18.8
All India versus Category	-7.1	-1.2	1.3	0.9	0
Any eye problem	35.9	52.3	55.1	63.5	55.3
All India versus Category	-19.4	-3	-0.2	8.2	0
No morbidity	66.4	52.5	46.9	40.9	47.9
All India versus Category	18.5	4.6	-1	-7	0
Physically active	64.4	60.2	59.8	58.0	59.8
All India versus Category	4.6	0.4	0	-1.8	0
High level of life satisfaction	39.8	37.5	46.6	50.9	45.5
All India versus Category	-5.7	-8	1.1	5.4	0
Old Age Pension Scheme	29.4	29.9	22.6	15.8	22.6
All India versus Category	6.8	7.3	0	-6.8	0

19.4 percent fewer than the national average, remotely followed by SC with 3 percent less than the national average. Regarding the percentage of people with no morbidity characteristics, 18.5 percent more people among the ST have no morbidity than the national average of 47.9 percent. Among the SC, only 4.6 percent more than the national average has no morbidity.

Regarding physically active persons, 4.6 percent more people are physically active than the national average. However, 5.7 percent less than the national average count of people among the STs have a high level of life satisfaction. However, 6.8 percent more ST people than the national average are included in the old-age pension schemes.

A series of chi-square tests were conducted to determine the statistically significant differences between the percentage distributions of health parameters discussed in Table 1. The details of the findings are presented in Table 2. The test of significance was calculated as ST versus SC, ST versus OBC and ST versus Others for every category of parameters. The calculated χ^2 values for each compared part of the category are given in the parentheses in columns 2 to 4. The critical value calculated is 3.841, and the degree of freedom is one and $\alpha = 0.05$.

Table 2 reveals that in the case of "Poor Health Status", all three compared categories were significantly different from each other. Significant differences exist in self-rated health status between the ST and other social categories. As the percentages indicate, a significantly lesser percentage of ST people have poor health.

The inter-community difference regarding the prevalence of cardiovascular diseases shows that SC, OBC and the Other community people are significantly different from STs. As the percentages indicate, a significantly lesser percentage of ST people have cardiovascular diseases.

Significant differences in diabetes prevalence are evident between ST and other social categories. As the percentages indicate, a significantly lesser percentage of ST people have diabetes mellitus. Similarly, significant differences exist in bone/joint disease prevalence between ST and other categories. As the percentages indicate, a significantly lesser percentage of ST people have bone and joint diseases.

In the case of eye problems, significant differences exist among some groups. While the difference is insignificant between the ST and SC, it is significant between the ST and the OBC and Others. However, in the case of "No Morbidity", the

Table 2: The Chi-Square test results and inferences made on the health and other parameters among different social categories

Parameter	*Comparison between social categories (The figure in parentheses is the χ^2 value)*			*Conclusion (df=1, Critical value = 3.841, α = 0.05)*
	ST vs SC	*ST vs OBC*	*ST vs Others*	
Poor health status	Significant (46.61)	Significant (117.16)	Significant (788.46)	Significant differences exist in self-rated health status between the ST and other social categories. As the percentages indicate, a significantly lesser percentage of ST people have poor health.
Having cardiovascular diseases	Significant (25.83)	Significant (117.16)	Significant (788.46)	Significant differences exist in cardiovascular disease between ST and other social categories. As the percentages indicate, a significantly lesser percentage of ST people have cardiovascular diseases.
Having diabetes mellitus	Significant (6.16)	Significant (117.16)	Significant (788.46)	Significant differences in diabetes prevalence are evident between the ST and other social categories. As the percentages indicate, a significantly lesser percentage of ST people have diabetes mellitus.
Having any bone/joint disease	Significant (42.20)	Significant (117.16)	Significant (788.46)	Significant differences exist in bone/joint disease prevalence between ST and other social categories. As the percentages indicate, a significantly lesser percentage of ST people have bone and joint diseases.
Having any eye problems	Not significant (6.45)	Significant (117.00)	Significant (39.54)	Varied prevalence of eye problems; signiicant differences exist among some groups. While the difference is insignificant between the ST and SC, it is significant between the ST and the OBC and Others.
Having no morbidity	Significant (35.53)	Significant (57.85)	Significant (60.49)	A more significant percentage of ST people have no morbidity. This percentage difference is statistically significant.
Physically active people	Not significant (0.56)	Not significant (0.00)	Not significant (8.39)	Consistent levels of physical activity are evident across the groups.
High Level of Life Satisfaction	Significant (6.98)	Not significant (0.29)	Not signi ficant (0.25)	Statistically significant differences are reported in life satisfaction between ST and SC. The difference between ST, OBC, and Others is not statistically significant.
Coverage of the Old Age Pension Scheme	Significant (135.19)	Significant (18.14)	Significant (56.79)	Significantly more percentage of ST people are covered under this scheme.

percentage of ST is statistically significantly different from their counterparts of SC, OBC, and Others. Conversely, in the case of "Physically Active" persons, the statistical differences are insignificant for all the compared groups.

There is a statistically significant difference between STs and SCs in the case of "High Level of Life Satisfaction". However, the difference between STs and OBCs and ST versus Others is insignificant.

Finally, the percentage of ST covered by the Old Age Pension Scheme is significantly different from that of other social categories.

Social Constructions of Being Old Among Indigenous Societies Across the Globe

Contextual Overview

A critical literature review reveals that the social construction of ageing in indigenous societ-

ies challenges Western paradigms by framing elderhood as a revered phase of wisdom, cultural stewardship, and communal interdependence. This finding is based on a critical review of research articles of several authors, including García et al.'s (2024) ethnographic study of the Inga and Kamçntsa peoples of Colombia's Andean-Amazon region with global indigenous gerontological frameworks, such as Mâori *kaumâtua* (Durie 1994) and Lakota Sioux elders (Jervis 2010) and several others. These perspectives illuminate how elder roles are negotiated through cultural, spiritual, and territorial bonds while confronting modern threats like colonisation and globalisation. The findings are classified under certain themes in a logical sequence as follows.

Key Themes in Indigenous Ageing

1. Wisdom as Identity and Communal Role

García et al. (2024) position Inga and Kamçntsa elders (*Taita* or *Tatsëmbuá*) as "knowers" (*sabedores*), whose authority stems from safeguarding traditions and mediating spiritual practices. This mirrors Mâori *kaumâtua*, who embody *whanaungatanga* (kinship responsibility) (Durie 1994), and Inuit elders preserving Arctic ecological knowledge (Marquard et al. 2024). Similarly, Akan elders in Ghana exercise *ananseem* (collective wisdom) in governance (Issahaku 2022), while Gond and Naga tribal councils in India enforce customary laws (Dumont 1990; Kumar 2021).

2. Oral Tradition and Cosmological Integration

The Inga and Kamçntsa transmit knowledge orally, "planting memory" through narratives interwoven with cosmology, a holistic worldview linking spirituality, territory, and identity. This practice parallels Aboriginal Australian Dreamtime storytelling (Viscogliosi et al. 2020) and Santhal harvest rituals (Vidyarthi and Rai 1977). García et al. (2024) emphasise that such oral traditions resist cultural erosion, contrasting Western privileging of written histories.

3. Territoriality as Existential Foundation

Ancestral land (*Pacha Mama*) is central to Inga and Kamçntsa identity, echoing Berkes' (1999) concept of "sacred ecology". Displacement threatens this bond, akin to Inuit struggles with climate-driven landscape shifts (Marquardt et al. 2024) and Mâori land-rights activism (Durie 1994). García et al. (2024) stress that territory transcends geography, serving as a spiritual and cultural anchor, a theme recurrent in Mapuche healing practices (Pocnet et al. 2020).

4. Symbolic Interactionism and Communal Co-construction

Elder authority emerges through communal recognition, contrasting Western marginalisation based on productivity. For Inga and Kamçntsa, ageing is a dynamic process where elders actively shape societal norms. This aligns with Himba pastoralists' reciprocal mentorship (Inman 2024) and Toda elderly women's postmenopausal ritual authority (Govindharaj 2023).

Cultural Practices and Gendered Roles

- ***Rites of Passage***: Transition to elderhood is marked by communal recognition rather than formal rituals. Inuit elders gain status through resilience in harsh environments (Marquardt et al. 2024), while Toda women assume leadership post-menopause (Govindharaj 2023).
- ***Matrilineal Authority***: In matrilineal societies like the Mosuo of China and Toda of India, elder women control kinship and resources, contrasting patrilineal contexts (for example, Maasai elders in Kenya) where men dominate politics but women gain advisory roles post-menopause (Inman 2024).

Modern Challenges and Decolonial Resilience

- ***Colonisation and Globalisation***: Western assimilation policies, such as Canada's residential schools (Jervis 2010), disrupted indigenous knowledge systems. Urbanisation in Ghana eroded Akan intergenerational cohesion (Issahaku 2022), while climate change threatens Inuit elders' ecological expertise (Marquardt et al. 2024). For the Inga and Kamçntsa, territorial displacement risks severing ties to *Pacha Mama* (García et al. 2024).

- ***Revitalisation Efforts***: Indigenous movements are reclaiming elder authority. The Sámi Parliament integrates elder knowledge into governance (Pocnet et al. 2020), while Mâori *kaumâtua* lead language revitalisation through *kôhanga reo* (Durie 1994). García et al. (2024) advocate policies prioritising land rights and intergenerational knowledge transfer.

One may conclude that García et al.'s (2024) study of the Inga and Kamçntsa enriches global indigenous gerontology, illustrating how elderhood is dynamically constructed through wisdom, territoriality, and communal reciprocity. Their findings resonate with Durie's (1994) assertion that elders are pivotal to cultural resilience. This synthesis underscores the necessity of decolonial frameworks in ageing research by contextualising their work alongside global examples, like from Mâori kaumâtua to Santhal spiritual leaders. Culturally sensitive policies must prioritise indigenous land rights, oral tradition preservation, and self-determination to mitigate the homogenising forces of globalisation.

Findings on Health Beliefs and Health-Seeking Behaviours Among Tribal and Indigenous Peoples

Holistic Health Beliefs and Socio-Cultural Determinants

Holistic Conceptualisations of Health

Indigenous health systems are characterised by a holistic understanding of well-being, integrating physical, mental, spiritual, and environmental dimensions. For instance, the Plains Cree perceive health as equilibrium across bodily, emotional, and spiritual domains, underpinned by communal interdependence (Graham and Stamler 2010). Similarly, the Yoruba of Nigeria attribute mental health to socio-environmental harmony, prioritising collective support over individualistic approaches (Jegede 2016). Griffiths et al. (2022) corroborate this, identifying health as a relational balance involving land, community, and spiritual practices. Traditional knowledge, particularly among elders, remains central to navigating health challenges while reinforcing cultural identity (Jaramillo et al. 2022; Bhoi and Acharya 2024).

Socio-cultural and Structural Determinants

Historical marginalisation, socio-economic inequities, and cultural beliefs significantly shape health outcomes. Soman et al. (2024) identify poverty and limited access to culturally safe services as key drivers of disparities. For example, India's Particularly Vulnerable Tribal Groups (PVTGs) often attribute illness to supernatural forces, favouring traditional healers over biomedical systems (Sonowal and Konch 2021). Such preferences highlight systemic failures in addressing indigenous needs and underscore the necessity of culturally informed healthcare models.

Pluralistic Health-seeking Behaviours and Systemic Barriers

Pluralistic Approaches to Treatment

Indigenous communities frequently adopt hybrid healthcare strategies, blending traditional and biomedical systems. The Shawi of Peru, for instance, use traditional remedies for minor ailments and biomedicine for severe conditions, reflecting context-dependent decision-making (Bussalleu et al. 2021). Similarly, Malaysia's Orang Asli relies on traditional healers for culturally resonant care, prioritising perceived efficacy and comfort (Danaletchumy et al. 2024).

Systemic Barriers to Healthcare Access

Structural inequities, including cultural insensitivity, financial constraints, and geographic isolation, hinder healthcare utilisation. In Canada, indigenous drug users face discrimination and inadequate provider training, deterring engagement with health services (Norton et al. 2024). Distrust of Western systems is pervasive, and Indian tribal groups often avoid modern healthcare due to historical neglect (Cáceres et al. 2023; Leon et al. 2023). Elders encounter compounded barriers, such as language gaps and socio-economic disadvantage, leading to reliance on familial support and missed treatments (Liddell and Stiffarm 2023; Jaramillo and Willging 2020). Addressing these challenges requires models prioritising cultural safety and indigenous-led solutions (Adamsen et al. 2018; Griffiths et al. 2022).

Findings on Ontological Perspectives of Ageing and Being Old

Ontological Tensions in Conceptualising Ageing

Nominalist Perspective – Ageing as Socially Constructed

Ageing is fundamentally shaped by cultural narratives and linguistic constructs, with no inherent reality beyond societal definitions. Nominalist frameworks posit that concepts like "old age" are contingent on language and cultural norms, rather than objective truths. For instance, in tribal and indigenous societies, elders are revered as decision-makers and knowledge custodians, reflecting culturally specific valuations of ageing (Goffman 1963). By contrast, individualistic Western cultures often propagate negative stereotypes of ageing, illustrating how societal narratives produce ageism and marginalisation (Cuddy et al. 2005; Baars 2016). Similarly, health and illness in indigenous contexts are perceived through socio-spiritual lenses, prioritising cultural factors over biomedical explanations (Pocnet et al. 2020).

Realist Perspectives – Ageing as an Objective Reality

Ageing is also understood as an independent biological and existential phenomenon, transcending social constructs. Realist frameworks emphasise ageing as a universal process marked by biological processes such as cellular wear-and-tear and programmed senescence (Hayflick 1965; López-Otín et al. 2013). Heidegger (1962) and Erikson (1982) further frame ageing as an existential journey, where individuals reconcile past experiences with future possibilities, shaping identity and self-perception. This perspective acknowledges measurable biological decline while recognising subjective experiences, such as individuals perceiving themselves as younger than their chronological age (Dorelaitienë 2013; Browning et al. 2023).

Interplay of Subjective and Objective Dimensions

Socio-cultural and Biological Intersections

The interplay of socio-cultural contexts and biological realities shapes ageing. Rowe and Kahn (1997) argue that chronological age often fails to account for variations in health and well-being, which are influenced by subjective factors like lifestyle and societal roles. Socioeconomic status and age stratification further mediate experiences of ageing, as evidenced by disparities in health outcomes across social classes (Marmot 2005; Elder 1994). In indigenous societies, ageing is tied to communal responsibilities and spiritual roles, contrasting with Western individualistic frameworks prioritising productivity (Hagestad and Uhlenberg 2005).

Conflicts Between Personal and Societal Perceptions

Divergences between individual self-perceptions and cultural norms can create tensions. For example, elders in tribal societies may embrace culturally ascribed roles, while those in individualistic cultures might resist age-related stereotypes (Cuddy et al. 2005; Pocnet et al. 2020). Such conflicts can lead to psychosocial stress, particularly when societal expectations clash with personal ambitions or capabilities (Carstensen 1992).

Toward an Integrated Ontology of Ageing

Bridging Nominalist and Realist Frameworks

A holistic understanding of ageing requires integrating socially constructed meanings with biological and existential realities. Hayflick (1965) and López-Otín et al. (2013) advocate for interdisciplinary approaches that synthesise biological markers (for example, cellular ageing) with subjective experiences (for example, self-perceived age). This aligns with Heidegger's (1962) existentialist view, where ageing is a process of temporal reflection and Erikson's (1982) emphasis on life-stage challenges.

Implications for Inclusive Ageing Frameworks

Recognising the dual ontology of ageing promotes inclusive policies that address both structural inequities (for example, ageism, healthcare access) and individual well-being. As seen in indigenous contexts, culturally sensitive models prioritise communal interdependence and spiritual health, offering alternatives to Western biomedical paradigms (Pocnet et al. 2020; Rowe and Kahn 1997).

Findings on the Epistemological Perspectives on Ageing in Tribal and Indigenous Societies

The LASI report and literature reviewed were used to develop epistemological perspectives on ageing in Indigenous societies. In the information analysis, both positivist and anti-positivist perspectives of ageing emerged.

Positivist Epistemology and Ageing

Dominance of Quantitative Metrics

Positivist frameworks conceptualise ageing through objective, measurable metrics such as chronological age and biological decline, aligning with Western biomedical paradigms. This perspective often equates ageing with deterioration, reinforcing narratives of decline and marginalisation (Katz 2005). The LASI report demonstrated the importance of objective data in significantly establishing the cause-effect relationships and the magnitude of health issues related to ageing.

Critiques of Positivist Limitations

Scholars challenge the reductionism of positivist approaches, arguing that they overlook the socio-cultural and spiritual dimensions of ageing. Katz (2005) advocates reinterpreting ageing beyond statistical metrics to acknowledge elders' contributions to community well-being and intergenerational knowledge.

Interpretive Epistemology in Indigenous Contexts

Ageing as Subjective and Culturally Embedded

The scholarly literature reviewed has demonstrated that the indigenous epistemologies frame ageing as a holistic, relational process shaped by cultural values and spiritual interconnectedness. For example:

- Australian Aboriginal elders are revered as *cultural custodians*, transmitting ancestral knowledge through oral traditions (Viscogliosi et al. 2020).
- Lakota Sioux elders serve as spiritual leaders, guiding communal practices and preserving tribal histories (Jervis 2010).
- Inuit elders maintain survival skills and ecological wisdom critical to Arctic cultural survival (Marquardt et al. 2024).

Methodological Implications

Researching indigenous ageing necessitates methodologies that prioritise cultural context and relationality. The Himba of Namibia, for instance, define ageing through social roles rather than chronological benchmarks, reflecting Olshansky et al.'s (2005) call for holistic frameworks (Dorothy 2017). Similarly, Maasai age-sets structure elder responsibilities, emphasising communal interdependence over individualism.

Integrating Indigenous Epistemologies

Reconciling Ontological and Epistemological Tensions

Indigenous epistemologies challenge positivist binaries by integrating spiritual, relational, and cultural dimensions of ageing. This aligns with anti-positivist critiques of universalised metrics, as seen in:

- Santhal oral traditions in India, where elders transmit cultural values through storytelling (Vidyarthi and Rai 1977).
- The Mâori concept of *kaumâtua*, where elders' roles in governance and language revitalisation reflect both realist (biological ageing) and nominalist (cultural authority) ontologies (Durie 1994).

Implications for Inclusive Research and Policy

Embracing indigenous methodologies enriches ageing discourse by:

- Centring elders' voices in health and governance frameworks (Viscogliosi et al. 2020).
- Advocating for culturally safe research practices that honour spiritual and territorial connections (Marquardt et al. 2024).
- Addressing systemic biases in Western gerontology, such as the marginalisation of Indigenous knowledge systems (Katz 2005).

From this delineation, one can conclude that the epistemological study of ageing in indigenous societies reveals tensions between positiv-

ist objectivity and interpretive subjectivity. By synthesising ontological perspectives (realist/nominalist) with indigenous methodologies, a more inclusive framework that respects biological realities while prioritising cultural, spiritual, and relational dimensions emerges. This approach challenges ageist stereotypes and empowers indigenous communities to reclaim narratives of ageing as a source of wisdom and resilience.

DISCUSSION

Integrating Cultural Ontologies, Health Paradoxes, and Decolonial Frameworks in Indigenous Ageing

The interplay between cultural narratives of ageing, structural inequities, and health outcomes in indigenous communities reveals a complex tapestry of resilience and systemic neglect. This discussion synthesises findings from India's LASI (2020) data, global indigenous gerontological frameworks, and the manuscript's exploration of ageing as both a biological reality and a sociocultural construct. By critically engaging with the dualities of veneration and marginalisation, the paradox of health metrics, and colonial disruptions, this section advances a decolonial lens to reframe ageing research and policy.

Cultural Dualities: Veneration, Stigma and the Social Construction of Ageing

The manuscript's introduction establishes ageing as a value-laden phenomenon, oscillating between cultural reverence and gerontophobic tropes. Proverbs like the Dagbanli saying, "*What an elder can see while sitting down, a young man cannot see even if he climbs an oak tree*" (Issahaku 2022), position elders as irreplaceable repositories of wisdom. Conversely, Hindi phrases like "*Sathiya Gaya*" (crossed sixty) dismiss elders as irrational, mirroring Western decline narratives (Gendron et al. 2015). These contradictions are not merely linguistic but reflect deeper societal tensions.

For example, in Singapore, elders are celebrated through active ageing norms ("keep moving, keep learning") yet stigmatised as financial burdens (Shiraz et al. 2020). Similarly, the Irish proverb, "*With age comes wisdom, but sometimes age comes alone*" humorously critiques the assumption that ageing inherently confers respect (Löckenhoff et al. 2009). Such dualities underscore how cultural narratives shape both self-perception and societal treatment of elders.

Implications for Health

While the LASI data reports lower chronic disease rates among India's Scheduled Tribes (STs) (for example, 15.5% fewer CVD cases), these metrics coexist with lower life satisfaction ("5.7% versus the national average). This paradox mirrors the Mâori experience, where *kaumâtua* (elders) are revered as cultural leaders yet face systemic healthcare neglect (Durie 1994). The dissonance between cultural ideals and lived realities highlights the inadequacy of biomedical metrics in capturing holistic well-being.

The LASI Paradox: Objective Health Metrics versus Subjective Realities

The LASI (2020) findings suggest tribal elders in India exhibit better physical health than non-tribal groups, with 18.5 percent more ST elders reporting no morbidity. However, this apparent advantage demands critical interrogation through socio-cultural and structural lenses.

Underreporting and Diagnostic Gaps:

- Limited Healthcare Access: Only 0.7 percent of STs report high cholesterol (versus 3.4% in non-STs), likely reflecting inadequate screening in remote tribal regions (Narain 2019). Similar underdiagnosis is observed among Canada's Inuit, where geographic isolation limits access to biomedicine (Marquardt et al. 2024).
- Cultural Perceptions of Health: Tribal communities often normalise conditions like arthritis as "natural ageing" rather than pathologies. The Santhal attribute joint pain to spiritual imbalance (*Bonga's whisper*), preferring traditional healers over clinical diagnostics (Vidyarthi and Rai 1977). This aligns with García et al.'s (2024) finding that Inga-Kamçntsa elders in Colombia frame health as harmony with *Pacha Mama* (ancestral land), resisting biomedical reductionism.

Lifestyle and Environmental Buffers

- Agrarian Livelihoods: STs report higher physical activity (64.4% versus 58% nationally), linked to subsistence farming and forest-based diets. The Gond tribe's millet-centric nutrition parallels the longevity observed in Okinawa's traditional diets (Willcox et al. 2009).
- Urban-Rural Divide: Lower exposure to processed foods and pollution may protect against metabolic disorders. However, urbanisation fractures these practices, as seen in Ghana's Akan communities, where youth migration leaves elders reliant on erratic remittances (Issahaku 2022).

Survivorship Bias and Data Limitations

Lower life expectancy among STs (unreported in LASI) may exclude elders with severe morbidity, skewing results toward "healthier" survivors. Similarly, sampling bias overrepresented accessible tribes with better infrastructure, echoing critiques of positivist methodologies that marginalise remote populations (Griffiths et al. 2022). Underreporting of health issues among Indigenous peoples arises from several interrelated factors, including cultural perceptions that normalise certain conditions (Kumari et al. 2023).

Colonial Legacies: Disruption of Intergenerational Kinship and Knowledge

Colonialism severed the intergenerational threads that once sustained indigenous ageing narratives. British policies dismantled tribal councils (*panchayats*), eroding Gond elders' governance roles (Kumar 2021), while Canada's residential schools disrupted Inuit knowledge transmission (Marquard et al. 2024). These historical traumas manifest in contemporary health disparities:

- *Land Dispossession*: Santhal elders displaced by deforestation experience *territorial ruptures*, losing access to medicinal plants and sacred groves (García et al. 2024). This mirrors Mâori kaumâtua's struggles to reclaim ancestral lands for cultural and health revitalisation (Durie 1994).
- *Erosion of Matrilineal Authority*: Toda women in India traditionally assume leadership post-menopause, but urbanisation and patrilineal labour migration dilute their ritual authority (Govindharaj 2023).

Resistance and Resilience: Cultural education and intergenerational initiatives empower elders as leaders and mentors, enabling them to navigate the ageing process with dignity (Dawes et al. 2022; Sindhu et al. 2022). Indigenous movements are reclaiming elder roles. The Sámi *lávvu* (communal tents) foster intergenerational mentorship (Pocnet et al. 2020), while Colombia's Inga elders use digital storytelling to preserve oral histories (García et al. 2024). Research indicates that despite the various challenges faced, Indigenous elders demonstrate remarkable resilience, drawing strength from community support and family structures (Quigley et al. 2022). Such initiatives buffer against psychosocial stress, though systemic neglect persists.

Toward an Integrated Ontology of Ageing: Bridging Nominalist and Realist Frameworks

Ageing in indigenous contexts is both a biological inevitability and a socially negotiated identity. Nominalist perspectives, as seen in Himba pastoralists who define ageing through social milestones (Inman 2024), challenge realist frameworks prioritising chronological metrics.

Case Study: LASI's "low life satisfaction" among the ST elders ("5.7%) may reflect communal humility rather than distress. Inuit elders underreport depression due to *ilira* (cultural shame), preferring collective resilience over individual complaint (Marquard et al. 2024). Similarly, Mâori kaumâtua prioritize *whanaungatanga* (kinship responsibility) over personal well-being (Durie 1994).

Methodological Tensions: Positivist surveys like LASI risk misinterpreting cultural resilience as biomedical immunity. Hybrid methodologies, such as participatory mapping with Gond elders, contextualise quantitative data through narratives of land loss and spiritual health (García et al. 2024).

Policy Implications

To address the LASI paradox and systemic inequities, policies must prioritise *Culturally Safe*

Healthcare that integrates traditional healers into national systems. For example, India's ASHA workers could collaborate with Santhal ojhas, mirroring New Zealand's Whânau Ora clinics (Griffiths et al. 2022). Further, by adopting a *Land Reparations* strategy, the restoration of tribal territories may be initiated to revive subsistence practices. The Mâori Waitangi Tribunal's land repatriation reduced elder mortality by 12 percent (Durie 1994). Under an *Intergenerational Programs* initiative, one can revive mentorship models like the Sámi *lávvu*, where elders teach youth reindeer herding amid climate crises (Pocnet et al. 2020).

However, barriers exist due to the presence of paternalistic policies, such as India's top-down pension schemes, which often ignore communal resource-sharing norms. Solutions must empower indigenous self-determination, as seen in Bolivia's *Ley de Derechos de la Madre Tierra*, co-drafted by Aymara elders.

Ageing as a Testament of Cultural Survival

One significant approach to improving healthcare among tribal and Indigenous elderly populations, as suggested by research-based studies, is to enhance cultural competency among healthcare providers, encompassing respect and reflecting their unique cultural contexts, fostering trust and encouraging community engagement, and effectively bridging gaps between traditional and modern healthcare (Sandes et al. 2018; Taraphdar et al. 2022; Goetz et al. 2023; Soman et al. 2024). Conte et al. (2015) emphasise the importance of family ties in providing essential support during health challenges. The LASI data, while highlighting tribal elders' apparent health resilience, obscures narratives of displacement-induced despair and untreated conditions. By interrogating the tensions between cultural reverence and structural violence, this study advocates for gerontological frameworks that honour indigenous ontologies. Future research must adopt *two-eyed seeing* (Marquardt et al. 2024), blending quantitative metrics with elder-led storytelling. Only by centering indigenous sovereignty can policies transform ageing from a "silver tsunami" into a movement of intergenerational renewal, where elders are not merely survivors but architects of dignified futures.

The paper comprehensively examines the ageing experience within tribal and indigenous contexts, intertwining subjective perceptions and objective health realities. It articulates a critical distinction between the societal roles imposed on the elderly and their dynamic, lived experiences. It highlights the tension between static societal views and ageing individuals' rich, multifaceted realities.

The introduction establishes the classification of human life stages of children, youth, and the elderly, pointing out that while younger individuals are often celebrated for their vitality, the elderly frequently confront narrow archetypes focused on decline and diminished capabilities. Cultural proverbs from diverse societies serve to illustrate this dichotomy, reflecting both the respect accorded to elders and the negative stereotypes they may face.

Subsequently, the paper delves into the objective dimensions of ageing, which focus on chronological age and health status, juxtaposed against subjective experiences encompassing individual feelings of identity and age perception. Research indicates that self-perceived age significantly influences health behaviours and overall life satisfaction. An analysis of the LASI India 2020 data sheds light on the health outcomes of tribal elderly populations compared to other social groups, suggesting that underreporting illnesses may still skew the understanding of their needs despite the relatively positive health status.

The paper further critiques prevailing biases within both research methodologies and societal perceptions of ageing, underscoring the imperative for integrative studies that capture the intricate relationship between subjective identities and objective health indicators. By addressing the impact of colonialism on traditional social structures, the authors argue for a holistic understanding of ageing that incorporates qualitative and quantitative approaches to better reflect the lived experiences of indigenous elders.

CONCLUSION

The study highlights the complex relationship between subjective experiences and objective health in understanding ageing among tribal and indigenous communities. Combining qualitative insights with quantitative data reveals that while

tribal elders in India report better physical health metrics, they experience lower life satisfaction due to cultural perceptions, underreported illnesses, and systemic healthcare barriers. The research critiques conventional ageing studies for neglecting indigenous ontologies, which view elders as cultural custodians and prioritise holistic well-being. It identifies colonial legacies and socio-economic changes as disruptors of traditional elder roles, worsening healthcare access. The paper advocates for culturally sensitive methodologies that merge indigenous knowledge with scientific approaches, emphasising interdisciplinary collaboration and policy reforms to align healthcare systems with indigenous values. Ultimately, it stresses the importance of centering indigenous voices in research and practice to ensure dignified, context-specific care for elderly populations, bridging the gap between empirical data and lived experiences.

RECOMMENDATIONS

To address gaps in understanding ageing within tribal and indigenous communities, comprehensive efforts must prioritise enhanced data collection on elderly health and well-being. This requires mixed-methods approaches, combining quantitative metrics with qualitative insights from surveys and community narratives to capture context-specific experiences and health challenges. Concurrently, strategies should be developed to mitigate the underreporting of health issues by fostering trust, improving accessibility, and aligning data systems with community needs. Research approaches in ageing studies must also evolve by centering indigenous methodologies that respect local knowledge and perspectives. Methodological diversity, integrating positivist frameworks with anti-positivist, culturally grounded analyses, can deepen insights into ageing as a social and cultural construct. Finally, interdisciplinary collaboration across anthropology, sociology, gerontology, and public health is essential to address the multifaceted realities of ageing in indigenous contexts, ensuring research and policy responses are holistic, inclusive, and ethically informed.

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