WHOSE REALITY COUNTS? VALUING *DALITBAHUJAN* KNOWLEDGE IN A TECHNOCRATIC INDIA

by

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Dedicated to *Mom, Dad* and youth of my village.

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ABSTRACT

Indian society is being reconfigured by the mobilization of people who had historically been marginalized in economic, social and cultural life. These people are referred to the constitution as Scheduled Tribes (ST), Scheduled Castes (SC) and Other Backward Classes (OBC) and combined, constitute the majority in India. In recent years, in Andhra Pradesh South India, there has been impetus to collectively refer to them as *Dalitbahujans* as acknowledgement of their salient productive role, recognition of their historical marginalization and their recent awakening. Some among them wish to see power turned on its head, but more prevalent has been their thirst for equality, dignity and a recognition of their many significant contributions to Indian society. This dissertation explores *Dalitbahujan* knowledge and experience through health and education. Central to this discussion is the question of *whose reality counts*?

LIST OF ABBREVIATIONS USED

AP	Andhra Pradesh
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
CCM	Cultural Consensus Modelling
EIC	East India Company
GMO	Genetically Modified Crops
IMF	International Monetary Fund
ISM	Indian Systems of Medicine
IT	Information Technology
JNU	Jawaherlal Nehru University
JNUTA	Jawaherlal University Teachers Association
NRHM	National Rural Health Mission
OBC	Other Backward Classes
PVTGs	Particulaty Vulnerable Tribal Groups
SC	Scheduled Caste
SEZs	Special Economic Zones
ST	Scheduled Tribe
WB	World Bank
WHO	World Health Organization

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CHAPTER 1 INTRODUCTION

Indian society is being reconfigured by the mobilization of people who had historically been marginalized in the economic, social and cultural life. These people are referred in the India's constitution as Scheduled Tribes (ST), Scheduled Castes (SC) and Other Backward Classes (OBC) and combined, constitute the majority in India. In recent years, in Andhra Pradesh, South India, there has been impetus to collectively refer to them as *Dalitbahujans* (Ilaiah, 2009) as acknowledgement of their salient productive role, recognition of their historical marginalization and their recent awakening (Ilaiah, 2009; Mohanty, 2004, p. 37). Some among them wish to see power turned on its head, but more prevalent has been their thirst for equality, dignity and a recognition of their many significant contributions to Indian society (Ilaiah, 1989). Central to this discussion is the question of *whose reality counts*?

This dissertation involves an exploration of *Dalitbahujan* experience and knowledge. We traverse through time and space, forests, dry plains, farms and scholarly textual representations to uncover *Dalitbahujan* experiences, perceptions and concepts of health and wellness in Andhra Pradesh, India.

The thesis is divided into two parts. Section I explores the literature, methods and methodologies relevant to the research. Section II explores case studies of *Dalitbahujan* knowledge and experiences with biomedicine, education, representation, folk medicine and plants. This section also includes the ways that *Dalitbahujan* people experience the scholarly academy in India and abroad and how they have been represented. I call for a

de-stigmatization and renewed valuation of *Dalitbahujan* knowledge. In this chapter I outline the objectives and questions pursued in this dissertation.

The research objectives are:

a) To examine *Dalitbahujan* knowledge and experience;

b) To explore *Dalitbahujan* experiences with science and technology, health and medicine;

c) To develop a decolonizing approach to *Dalitbahujan* studies.

Some key questions I will ask to explore these objectives are:

a) How have *Dalitbahujans* experienced health and wellness through colonialism and post colonialism?;

b) How have *Dalitbahujans* experienced the public health and educational system in India?;

c) What kind of knowledge do *Dalitbahujan* peoples share about health, wellness, science and technology and what are some of the nuances of this knowledge?;

d) How have *Dalitbahujans* been represented in scholarly literature?;

e) Why is it important to take a decolonizing perspective in this project?;

f) Whose reality counts in contemporary and future India?;

These objectives and questions will be explored through a detailed literature review and selected case studies of *Dalitbahujan* experiences and knowledge through decolonizing lens (Debnath, 1999, p. 3110-12; Marsh et al., 2015; Smith, 2012). The study involved

interviewing people from *Dalitbahujan* communities in different parts of United Andhra Pradesh to develop extended case studies. I also use autoethnography method in the study. I am a *Dalitbahujan* person born and raised in a small farming community in rural Andhra Pradesh and I reflect on my own experiences. In a context with a long history of most studies on *Dalitbahujans* having been done by upper caste Indian or foreign scholars, this study is developed by a *Dalitbahujan* author. In the next section of the thesis I describe the region of South India and introduce Indian constitutional categories, along with a brief discussion of caste and class. In the final section I outline the chapters of the dissertation.

1.1. THE REGION

South India consists of Tamil Nadu, Andhra Pradesh, Telangana, Kerala , Karnataka and Pudicherry a former French enclave. Hindus constitute 80% of the national population and this is replicated in the South. People in these states speak an array of indigenous languages and the Dravidian family of languages such as Tamil in Tamil Nadu, Telugu in Andhra Pradesh and Telangana, Malayalam in Kerala and Kannada in Karnataka. Some people also speak Hindi, English and French as well as a number of other indigenous languages. Andhra Pradesh, Tamil Nadu and Karnataka were part of the Madras Presidency during British rule up until 1956 sharing in that colonial history (Bagchi, 2010; Dirks, 1997). This dissertation focuses mainly on United Andhra Pradesh state in South India which in June 2014 was bifurcated into two different provincial states Telangana and Andhra Pradesh.

Hindutva, a popular form of Hindu nationalism, is quite strong in the North, whereas in Southern India it has not been able to establish a stronghold to any significant extent. Adherents of these religions coexist side by side, attend each other schools, and eat each other foods, intermarry and interact throughout South India and there is a relative absence of marked religious conflict as per what is the norm between Hindus and Muslims in the North. Life throughout South India is rapidly transforming, however, and it is difficult to say how much longer the relative peaceful co-existence will continue. The changes are mainly due to economic factors such as intensified economic liberalization which is leading to a rapid displacement of rural populations from traditional forest lands or agricultural lands to peri-urban areas. Some are affected more dramatically than others (see Basu, 1994; Cook, Bhatta, & Dinker, 2013; Dutta, 2016; Kalla & Joshi, 2004; Pramukh & Palkumar, 2006). This is happening quite rapidly and often with the help of local social scientists who are hired as consultants by the state and private sector to track the development of free trade zones (Cross, 2010; Harding, 1987; Kjaerulff, 2015; Pfeffer & Behera, 1997), such SEZ industrial zones in Eastern Andhra Pradesh in which a number of villages agreed to give up their agricultural lands in exchange for the promise of employment in the industrial zone. This employment has not taken place to date for many who were promised jobs and the villagers, all *Dalitbahujans*, are stagnating in their villages, and watching the once fertile land grow yellow and barren while they themselves grow hungry. These zones, modelled after initiatives in China, have been unsuccessful by most accounts (Tantri, 2013) in India, the relationship between social science and state power is perhaps much more overt and obvious than has been described in detail for the West (Price, 2008, 2011). As with other places in the world were people

resisting power, India has long been the stronghold of militant forms of opposition nation (Priya et al., 2017; Waldman et al., 2017) and likewise the security forces have also long known the importance of understanding the 'enemy' in a nuanced manner. In a different but related vein, Gosh raised some helpful concerns about the tendency for social science researchers to fit their agendas to the research funds that are at their disposal and leaving theory behind while submitting to the NGO, state or private sector technocratic and profit oriented agendas (2008, p. 77; see for instance Ghosh, 2009; Srinivas, 2009; Sternberg, 2010; Thomas & Taverner, 2017).

The tension between the technocratic approach towards science and medicine, stressing profits and biotech solutions to health problems, and the subaltern scientific perspectives, tending to stress egalitarianism and low-tech solutions are constantly navigated by rural *Dalitbahujan* people. The United Andhra Pradesh (AP) is an important context for this examination because it has the most intensly targeted for profit-oriented bio-tech interventions for over a decade. Further, as an agrarian-based economy, the state has also been the focus of a number of capital-friendly interventions such as the SEZs, GMO crops, a wide plethora of biotech projects through Gates and Clinton Foundations, all of which tend to focus on high tech and capital intensive interventions (Anuradha, Goud & Rao, 2015). Poor, rural *Dalitbahujan* communities are typically first affected by these interventions.

A transforming economy, the agrarian livehood continues to be the main economic form in spite of India's industrial dreams. Within this context, *Dalitbahujan* farmers continue to subvert the technocratic agenda through their ongoing production of ancient crops, and common-sense approaches toward health and healing using plants and food. I

will explore how their concepts of science, medicine and "wellness" differ from those of the profit-based technocratic global health industry. In a way, their continuing reliance on low tech, egalitarian approaches to health and healthcare are counter to the high tech, profit-based approaches of the growing biotech industry and something that these lucrative industries also wish to root out.

But before turning to that, I survey literature to explore the foundations upon which these interventions have been constructed and sustained; the colonial creation of toxic social and economic contexts while simultaneously denying health services and using the *Dalitbahujan*s for testing of new biotechnologies such as vaccines. Today, as in the past, *Dalitbahujan* communities are targeted for clinical trials of vaccines as well as plans for gene therapy because some among them are viewed as "pure" gene pools who are relatively free of biomedicine. There are wide range of projects designed to test the genetic heritage of *Dalitbahujans* in a way that reifies their subordination scientifically but with an assumed upper moral hand. Rather than providing mosquito nets to communities where malaria is prevalent, private biotech firms are modifying the genes of the mosquitos and people, for example, all of which is tested out on *Dalitbahujan* peoples first because they are poor, vulnerable and have little power other than in numbers and even this is often compromised using divide and rule politics (Dasgupta, 2015; Ganti, 2014; Kipnis, 2007; Sujatha, 2011). But the glint of hope lies in unification and seeing that the contributions made by *Dalitbahjans* are significant and that in numbers there is power (Staggenberg & Ramos, 2016, p. 20-35).

While many progressive-minded social scientists in India view the health system as a failure (Hammar, 2007; Qadeer, 2011; Rao, 2004) given the growing strength of the

above social movements, it might be the case that India returns to the early post-colonial vision of *Health for All*, that was affirmed at the time of Independence and reaffirmed in the 1970s through the Alma Ata declaration. But the path toward this goal will likely be turbulent what with India's governing party joining hands with the rest of the industrialized world in the G20 and making more arrangements that weaken the state and strengthen corporations and the private sector. India has always been a dynamic social space and will continue to be in the coming years as the Indian state carves a place for itself in the global economy. The majority of people who constitute India, the rural peoples (including *Dalitbahujans*), likewise demand a dignified place in 21st Century Indian society. In the next section I explore the constitutional categories that play a significant role in shaping people's access to resources in India.

1.2. CONSTITUTIONAL CATEGORIES AND COLLECTIVES

The constitution classifies the Indian population and offers economic and legal protection to people who had been historically marginalized and are vulnerable today—at least in words. The four political groupings are Scheduled Tribes, Particularly Vulnerable Tribal Groups, Scheduled Castes, Other Backward Classes.

Scheduled Tribes (ST) who are understood as the autochthonous people of India. Article 342 of the Indian Constitution notes that: "...scheduled tribes as tribes or tribal communities which may be codified by the President and are 'entitled to have development provided by the state". Constituting approximately nine percent of the total population (Kanjamala, 2014; Kshatriya, 2004, p. 17; Sahu, 2001; Singh, 1994, p. 41), linguistic and cultural diversity is the norm within this nine percent, with more than 700

tribal groups who have been and still are rather geographically isolated (Guilmoto, 2011, p. 31; Subramanian, Nandy, Gordon & Lambert, 2006, p. 819). There is a "...bewildering variation in population size...from 31 Jarawas of Andaman and Nicobar Islands to no more than seven million Bhils of Rajasthan, Madhya Pradesh, Maharastra and Gujarath" (see Das, 1994, p. 197; Kshatriya, 2004, p. 18). As among Canadian indigenous peoples (Cannon, 2007), there are also some tribal peoples who have not yet been recognized by the state officially and many who are fighting for recognition. While ST is a common political and policy term, the term *Adivasi*, encapsulating Tribal peoples' egalitarian tendencies, minimal dependence upon money and markets, shared history of land loss and so on (Singh, 1994, p. 41-42; Subramanian et al., 2006, p. e421) have been adopted by some as a form of self-reference. In this dissertation I will use the constitutional term[1] when referring to ST peoples. In addition to this, in the 1970s the category of "Primitive Tribe" was introduced, and more recently, this term has been modified to Particularly Vulnerable Tribal Groups (PVTGs) and there are currently some 52 such groups and are located mainly in the forests and are the subject of a wide range of development efforts (Misra, 2016).

There are differing levels of disenfranchisement from forest and/or agricultural lands among PVTGs and ST groups, but peri-uban relocation is a growing phenomenon (Chatterjee, 2013; Nandini, 2016; Pati, 2006; Pramukh & Palkumar, 2006). The "Tribal belt" located in Chhattisgarh, Orissa and Northern Andhra Pradesh, are home to also

[1] In Telugu, the common word used is *Garijanalu* meaning "people who live in forests and hills".

among the most militant groups who have armed themselves to keep their lands and for a fair share of resources (Munshi, 2012).

Some ST and Primitive tribal groups continue to rely on the forest for subsistence, but more and more rapidly, ever since independence, deforestation has been a major problem (Singh, 1994, p. 45) and they are becoming incorporated into India's rapidly developing industrial economy (Pramukh & Palkumar, 2006, p. 3; Pati, 2006). Unfortunately, the state has been considerably weakened with the opening-up of the economy in the 1980s and consequently, local and foreign companies have been penetrating into primitive tribal areas and acquiring their lands. The majority of Primitive Tribal groups rely to a limited extent upon forest products, but agriculture and daily wage work constitutes a significant part of their livelihood (Chemmencheri, 2015; Ray & Bagchi, 2001; Yechury, 2011). These changes have negatively affected their health (Sahu, 2001). Systematic data on patterns of health deprivation are scantily available when it comes to aboriginal peoples in non-Western nations (Subramanian et al., 2006, p. e421). Relations within tribal groups have been characterized as communalistic with a high level of sharing of available resources although this tendency is being reported to be withering "...under the impact of the current individualistic capitalistic trends" (Singh, 1994, p. 44).

Key to this discussion is that ST and PVTG peoples form a core component of the *Dalitbahujan* political category in United Andhra Pradesh (in 2014 the United Andhra Pradesh divided into two states Andhra Pradesh and Telangana provincial states). They have joined hands with other constitutionally protected groups referred to in the

constitution as *Scheduled Castes* (SC) and *Other Backward Classes* (OBC) groups (Ilaiah, 2009) whom I will explore next.

1.3. SC and OBC

According to the Hindu Origin Myth, Scheduled Castes (SC) are not considered part of the caste system at all and are referred to as *Dalits*, formerly known as untouchables (Kumar, 2016). The term Dalit is "...not neutral, and tends to promote a more conscious, militant and aggressive view of society" (2011, p. 58; see Mullings, 2005). The largest caste grouping in India is the *Other Backward Classes* groups. They are positioned at the very bottom of the *varna* system[2], and formerly referred to as *Sudras*. This group of people have been statistically indistinct since the 1931 Census but since the late 1970s, the Mandal Commission led to the creation of a category: OBC, based largely on a socio-economic status based on poverty, education and occupations (Guilmoto, 2011, p. 31; Valk, 2010; Zene, 2013). This became further consolidated in the 1980s with an interest to work towards the upliftment of "backward classes" (Government of India, 1980) and also met with resistance from upper caste groups who protested it. Both SC and OBC peoples perform the backbreaking work that the higher castes do not do such as agricultural labour, stone cutting, pottery making, building, waste removal, slaughtering animals and so on but proportionately, OBC castes constitute 60% of the national population whereas ST and SC groups constitute 18% of the national population (Guilmoto, 2011, p.31). Many of them also engage in daily wage labour for higher castes who own land. Brahmins, at the top of the caste hierarchy tend to dominate

[2] Brahmins are at the top or head, Kshytrias, next, Vaishas, Sudras at the bottom. OBCs constitute *Sudras*.

in the intellectual and professional spheres and also own much property in cities but in the past several years there are more and more SC (Dalit) and OBC professors, editors, chairmen, engineers other types of professionals and so on (Alloco, 2009; Chinnaiah, 2016; Gupta, 2005). SC and OBC groups have also long been active in the anti-caste movement which commenced with Ambedkar's book *The Annihilation of Caste* (Zene, 2017) written in the 1930s and the anti-Brahmin Dravidian movement in Tamil Nadu. While there are many linguistic and cultural differences between ST, SC and OBC groups that must be understood in their own historical, social and economic context, they share much in common in terms of class background in that most are poor, either small land owning peasants, semi-peasants or migrant workers and there is also a growing class of upper caste people whose class position is equally poor but they have no state protections (Delige, 2011, p. 56-7; Ray & Bagchi, 2001).

A major challenge in relation to ethnographic research in South India is the way that India's population has been classified, then, and the reproduction of these categories by demography and the census. After all, demography is rooted in colonial India under the Portuguese who began with manual recordings of baptisms or funerals, and later, the British started the tradition of census, manuals about land revenue, caste, class, land areas, population figures as well as cattle in the nineteenth century. Guilmoto identifies the weakness of these and other statistical records such as how age was measured, that the records are unreliable in terms of survey errors, unreported births and deaths, and so on (2011, p. 25-27; Chatterjee, 2013; Simpson, 2011) and that dominant categories for gathering data have no strong sense of elaborating recent transformations of socio-cultural life in India and tend to reify their colonial categories such as caste for example.

(2011, p. 30-32). What is needed are new approaches to flesh out meanings and experiences of new realities, whether it be statistical (Guilmoto, 2011, p. 28; Somayji & Somayaji, 2000) or qualitative in nature. In this thesis I attempt to provide a glance at Dalitbahujan experiences using a mixed methods toolkit from a decolonizing perspective and informed by autoethnography as well.

1.4. OUTLINE OF THE THESIS

In Chapter Two I will explore methodologies and methods I selected and explore some of the challenges of research in South India as an insider/outsider. In Chapter Three, I will examine the ways that *Dalitbahujans* knowledge has been regulated up untill the present. Chapter Four details how some *Dalitbahujan* peoples experience the biomedical system and Chapter Five examines *Dalitbahujans* common knowledge of folk medicines with a sub-focus on plants. In Chapter Six, I explore Vaddera *Dalitbahujans* of Chittoor and Chapter Seven examines the toxic context experienced by *Dalitbahujans* in terms of education by exploring case studies of the academy and the way that *Dalitbahujans* have been depicted by foreign and caste-Hindu scholars. This chapter epitomizes my view that the context of life is essential to health or in creating illness (see Horden & Hsu, 2013), and that education is one of the dominant social spheres that has the ability to empower or marginalize. Here I also call for Critical Pedagodgy as a way of reconfiguring the education system. Chapter Eight is the concluding chapter where I rearticulate whose reality counts and why *Dalitbahujan* perspectives matter in 21st century Andhra Pradesh.

CHAPTER 2 METHODS AND METHODOLOGIES

"The voices of those who live outside the academic pale and on the margins of the Euro-American world are heard only occasionally.... they are like the ghosts that haunt a desolated landscape where some nameless catastrophe has rendered human existence superfluous." (Jackson & Piette, 2017, p. 5)

In this study I take a decolonizing perspective blended with mixed methods including autoethnography and grounded theory to explore *Dalitbahujan* experiences and knowledge through time and space in Andhra Pradesh. In the first section of the chapter I explore the need for a decolonizing methodology to guide the project and some of the challenges of conducting research in South India and the ways that some scholars have approached it. In the second section I outline the nuances of the specific methods I used.

2.1. DECOLONIZING APPROACH

The methodology that a researcher draws on determines the shape of the knowledge generated. Methodologies are distinguished from one another by such things as the questions they ask us about the world, their perspectives or, world view, the set of assumptions they employ, and the methods they use to build up a body of knowledge (facts, concepts, theories) around a certain subject matter (Newell & Green, 1982, p. 25). Specifically, "… research methodology is a theory and analysis of how research does or should proceed' while "A research method is a technique (or way of proceeding in) gathering evidence" (Smith, 2012, p. 44). Quoting Harding, Smith notes that (1987, p. 2-3) "…theory or method, or the approach or technique being taken, or the reasoning for selecting a set of methods" (Smith, 2012). Several decades ago, Smith articulated on decolonizing methodologies in her ground-breaking book of the same title published in

1999, during the United Nations First International Decade of the World's Indigenous peoples and new recognition of marginalized and racialised peoples' struggles against the yoke of colonialism (Hughes & Pennington, 2016). Smith notes that "as Fanon and later writers such as Nandy have claimed, "imperialism and colonialism brought complete disorder to colonized peoples, disconnecting them from their histories, their landscapes, their languages, their social relations and their own ways of thinking, feeling and interacting with the world...the Western academy which claims theory as thoroughly Western, which has constructed all the rules by which indigenous world has been theorized..." (1999, p. 28; Fanon 2005; e.g., Freire, 2000; Hernández-Wolfe, 2015). This has culminated and proliferated in the emergence of indigenous and subaltern scholars who have taken these processes and their effects, to task.

Scheper-Hughes (1995) further tackled issues that go beyond institutional interests in her writing about anthropology in South Africa and Brazil. Her argument and the response to it, exposes a range of views in the academy about political engagement and research agendas in South Africa. Scheper-Hughes asserts that the nature of long-term research of the sort that anthropologists do where they learn about the secrets of the field site(s) can often be an act of bearing witness to evil and that this requires a response (1995, p. 416). Calling for a politically engaged anthropology that speaks truth to power, or the ethics of opposing power (Graeber, 2004, p. 6). Scheper-Hughes asserted that we live in a context of the state of emergency created by global capitalism in "making the world and social science safe for 'low intensity democracy' backed by World Bank capital" (1995, p. 417) or, maybe what Graeber would call a majority democracy held together through coercive consensus making (2004, p. 89). She went even further to

address her critics such as Paul Riesman's assertion that in taking a political position, we are "leaving anthropology behind" (1995, p. 416) and charges that such "...non-involvement has its virtues". The responses to her article, written by classical names such as Marvin Harris and Adam Kuper are polemical and go to the heart of moral versus scientific social science, the former of which, seem to strike many anthropologists as "unsavoury, tainted and even frightening" (1995, p. 415). Her characterization of these intellectuals pin points the fact that the "old order that is hanging on till the bitter end" (Graeber, 2004, p. 79; Scheper-Hughes, 1995, p. 415), a western institution which has survived from the Middle Ages, as has the Catholic Church and the British monarchy (Graeber, 2004, p. 7; Plemmons & Barker, 2016) and which plays a significant role as "incubators of wealth creation" (Berglund, 2006, p. 187; ex. Gosh, 2008, p. 77-9).

But Scheper-Hughes does recognize that the latter view is not the status quo in places like Italy, France, Latin America and India, where "...the anthropological project is at once ethnographic, epistemologic, and polemical and where anthropologists do communicate broadly 'the police' and 'the public' (1995, p. 415-416). Writing about indigenous peoples and social science research, Smith also asserts the other layer of consciousness that seems absent or non-apparent to some anthropological circles (1999; see Kovach, 2010). All of these issues are salient in today's decolonizing Asia (Shigematsu & Camacho, 2010), India, *Dalitbahujan* and all indigenous peoples or racialised minorities (Byrd, 2011) and experiential narrative ethnographic materials are not frivolous in times of economic and political disruption (Farmer, 1996; Pelto & Pelto, 1996, p. 245-248). The "mountains of texts" (Bernard, 2011, p. 415) produced can be used by future generations in staking claims to resources as among indigenous peoples in

other post- colonial contexts (Mutua & Swadener, 2011; Smith, 2012; Wilson, 2008). In India, recent years has seen the slow rise of *Dalitbahujan* scholars such as anthropologists, some of them on their own communities and they come with a fresh set of tools and perspectives that had previously been hidden from the view (Baumgartner, 2004, p. 2011-2104; Chinnaiah, 2016; Visvanathan, 2006).

2.2. AUTOETHNOGRAPHY: INSIDER-OUTSIDER

Some time ago, social sciences turned away from the instrumental positivism that ”crushed out emotion… ethics and values…” (Bernard, 2011, p. 16) and humanism, existentialism and hermeneutics were a response to this (Bernard, 2011, p. 16-17; 2017; see Harding, 1995, p. 332). I come from the *Dalitbahujan* agrarian community and I am fluent in the languages spoken by the *Dalitbahujan* people, Telugu, not only as a native speaker, spent my childhood in state schools (what some of us refer to in English as “residential schools' due to the assimilating and brutal practices experienced there), but also studied it and its literary and grammatical conventions at the university level. I also spent several years as a graduate student in India doing small-scale studies, and made observations during my life in state boarding schools, hence through autoethnography I try to reflect on wider social, cultural, economic and political experiences (Loppie, 2007; Moreira, 2011). Anderson terms this “analytic autoethnography” in which the scholar is part of the society they are writing about and committed to developing broader social understandings of the groups being studied (2006). Bernard points out the salience of having a “…. deep involvement with culture, including an intimate familiarity with the language, so that the symbolic reflections emerge during the study of expressions. You can't see the connection among symbols if you don't know what the symbols are and

what they are supposed to mean" (Bernard, 2011, p. 415; e.g., Bernard, 2017). Hence, the strength of autoethnography that is equally important for "outsiders" as well as for "insiders" and presumably I am both a "cultural insider and outsider" (Narayan, 1997; Richards, 2008; Smith, 2012). Autoethnography can also decolonize Anthropology, as Narotzky notes that "...I can situate the knowledge in concrete practices and particular histories that help me understand what they are really saying, sometimes, under the latest conceptual jargon borrowed from abroad… My foreign friends and colleagues with political positions and biases similar to mine are incapable of reading between the lines until they become aware of the local histories and struggles" (2006, p. 149; e.g., Chawla & Atay, 2018; Dutta, 2018). Being an insider also might intensify the tendency for "conscious ethnographic work" to enact power relations (Alloco, 2009, p. 4; Ortner, 2006, p. 130-135). But even more than this, as Smith has stated in relation to non-Maori researchers "some non-indigenous researchers who have a genuine desire to support the cause of Maori ought to be included because they can be useful allies and colleagues in research" (1999, p.184; Tuck & Yang, 2012).Taking all this into consideration, I make every effort to be conscious and self critical about how my methods and methodology (Wilson, 2008) ought to contribute to *praxis* (see Bhadra, 1989, p. 340; Smith 2007).

But being an "insider" has its own limitations and studying one's own people means that the ethnographer might have some strong biases that make certain visible and other things invisible. Likewise, it is impossible to be omniscient even for the 'native' anthropologists (Narayan, 1997, p. 30). Alloco citing Geertz (1988, p. 14) notes that "culture is contested, temporal and emergent" (2009, p. 6), this cannot be more true of

South India (Nayaran, 1997) where even "natives" might miss important things and/or deliberately ignore them.

Given all the above, ethnographers could find it challenging to learn about the cultural nuances of the context they are researching. This requires being able to speak the local language(s) or dialect(s) and to be familiar with the culturally significant symbols of the people under study as well as the non-verbal forms of communities (Creswell, 2007, p. 72). This is important for "outsiders" as well as for "insiders". In running interviews as "conversations with a purpose (Burgess, 1994; Hardon et al., 1995, p. 166), one must intimately know the rules of the conversation in order for it to be effective.

Turn-taking and other informal rules and whether they are needed or broken reveal a lot about the culture (Bernard, 2011, p. 426) and knowing when to be silent in a conversation is equally salient. As Brodie characterized one of his respondents who "…paused and waited, paused and waited…the longest of these pauses might have lasts as much as five minutes…there is no need to escape from silence, no need to use words as a way to avoid one another, no need to obscure the real" (Basso & Hymes, 1979). Dravidian languages are gender specific with honorific terms of reference among younger and senior, friends, colleagues and close acquaintances. There is a rich vocabulary to choose from and the rules of conversation in an urban university campus are different from those in a rural village. It takes a lot of time to become familiar with these, and to be aware of how people break the rules, or how to talk during the awkward situations (Berglund, 2006). Appadurai emphasized the importance of learning to listen to silence in between the narratives of respondents when they are offering competing claims (1985, p.14; see Bernard, 2017). For example, in exploring the concept of 'gratitude'

among Tamil Brahmins, Appadurai has noted that the ultimate verbal insult is to *nanrikkettanaaye,* (an ungrateful dog) because reciprocity is a fundamental social principle and the local meanings of 'dog' as a bad omen or a demon (1985, p. 243; e.g., Delige, 2011, p. 51; Graeber, 2004, p. 24-5). When one is fluent in the symbols of a group, the layers of meaning become apparent and one can also tease out the nuances of speech and other behaviors (Battiste, 2008; Dilger, Huschke, & Mattes, 2015; Narotzky, 2006 , Pelto & Pelto, 1996, p. 113) yet without producing " ...prose overly bound with tedious detail" (Allocco, 2009, p. 5). In my research I needed to adapt to the norms of conversation based upon the context, or engage in code switching, in different dialects of Telugu, the status of the person being interviewed, their gender or age (Anderson, 2002, p. 1535; Dilger, Huschke, & Mattes, 2015; Ortner, 2006, p. 129-134). As a Telugu speaker whose people were once classified as a "Denotified Criminal Tribe" in Andhra Pradesh, and as *Dalits* in Karnataka, and other things in other states, I am both a "cultural insider and outsider" (Bishop, 2005; Narayan, 1997). Our people subsequently were classified as OBC, however, the classification offered no shelter from economic and social marginalization and people continued to be mistreated (Abraham, 1999). My father was a bonded laborer (Olsen & Neff, 2000), working from the age of nine till the age of 24 to work of the debt to a wealthy upper caste family in the region. My father is now elderly, and still eking out a living on subsistence agriculture and cash cropping, and daily wage labour on a seasonal basis. Hence accessing the "lived reality" of *Dalitbahujan* subalterns and overcoming the subject/object dichotomy (Jackson, 2012; Jackson & Piette, 2017, p. 2) is something I try to accomplish in this work, however modest it may be.

2.3. Interviews and Observation

I prepared interview questions in Telugu in advance of entry in the field and modified them as needed as a form of "conscious ethnographic work" (Alloco, 2009, p. 4). An interpretive design flowed from this whereby I attempted to analyze the complex realities that seemed salient to without producing "tedious detail" and toward capturing the indeterminacy of lived reality" (Jackson & Piette, 2017, p. 3-4).

The semi-structured and unstructured interview questions were informal and conversational (Creswell, 2007, p. 311) and I was vigilant that some questions might turn out to be more important than the others and exercised flexibility in the questioning sequence (Creswell, 2007, p. 72). This type of interviewing style is well suited for projects in which you have multiple contacts with informants (Bernard, 2011, p. 157; e.g., Scheper-Hughes, 1993; Singh, 2016) and is excellent for learning about lived experiences of fellow human beings (Bernard, 2011, p. 158) and can be applied with other methods such as when you want both narrative (textual) and numerical (statistical) data (Adams, 2010; Bernard, 2011, p. 158).

For example, as Bernard postulates, understanding social nuances such as how it feels to cross the border from Mexico to Texas to be deported a couple days later; what it's like to survive hand to hand combat; or how to get through each day with a dying relative (2011, p. 158). In this dissertation chapters Four, Five, Six, and Seven, I follow-up on Bernard by exploring the findings from my interviews and observations about such things as: How does it feels to be a sick *Dalitbahujan* in need of treatment from biomedical upper class and caste physicians?: How does it feel to read textbooks in which

some cultural practices are stigmatized by outsiders?: How to survive through an education system that sees you as inferior?; How does it feel when people have power over you due to concepts of caste and purity?: How does it feel to be a Dalitbahujan at this time in technocratic India?

2.4. Cultural Consensus Modelling

In this project I also drew on Cultural Consensus Modelling (CCM), the results of which are contained in Chapter Five where I explore some aspects of *Dalitbahujan* plant-based healing. Linda Garro's cultural consensus modelling was designed for health research as researching Mexican women healers and designed more than 300 yes/no questions to determine whether a set of beliefs was esoteric to particular group; in this case, middle aged female Mexican healers (Garro, 2000). Cultural consensus modelling serves multiple purposes in that it generates a great deal of quantitative data about the particular topics, and at the same time generates a body of qualitative data since the interviewer can follow up on the yes/no questions. Cultural consensus analysis provides a way to measure the extent to which people agree about the contents of the cultural domain (Bernard, 2011, p. 371; Pelto & Pelto, 1996, p. 233) and could be used to show lack of consensus as well if one were seeking that (Bernard, 2011, p. 371).

For this project, I thus developed and deployed a cultural consensus modelling interview schedule consisting of more than 300 yes/no questions exploring *Dalitbahujan* concepts of healing that I have come to understand from the literature and my own knowledge. I was able to use this method among people who self-identified as practicing healers AP through purposive sampling (Sleeboom-Faulkner, 2015). The interview took in between two and three hours and I gathered the data without the aid of field assistants.

The numbered data was entered into an excel spreadsheet at first, and then entered into SPSS to identify patterns and develop some visuals around plants and health in particular.

2.5. Content Analysis and the Extended Case Method

Content analysis is a simple but powerful qualitative method of coding textual information to reveal the manifest and latent content contained therein (Bernard, 2011, p. 441) and a method suitable for a decolonizing perspective. In critiquing the over-reliance on the western canon, Graeber rhetorically asks "who really has the means, in discussing, say, conceptions of desire, or imagination, or the self, of sovereignty, to consider everything Chinese or Indian or Islamic thinker had to say on the matter in addition to the Western canon, let alone folk conceptions prevalent in hundreds of Oceanic or Native American societies as well?" (2004, p. 97; e.g., Gosh, 2008, p. 78). Gosh has also noted an over reliance on English texts and western philosophies (2008, p. 78) and this has also been affirmed by Smith (1999), Pramukh and Palkumar (2006). For the dissertation, however, it was important to analyze English scholarly materials as that is the dominant language for scholarly writing and where representation of *Dalitbahujans* appear and or are absent. Petryna reminds us that an analysis of the public health classifications as the disappearance and emergence of certain diseases can reveal a great deal about the politics of knowledge on health data (2005, p. 32; Hollen, 2016) and this is true for *Dalitbahujan* representations as well.

In doing a form of deductive content analysis, I began with a hypothesis (Bernard, 2011, p. 428), and then I selected the textual corpus under investigation through a purposive sample, and then identified the units of analysis within the texts (Bernard, 2011, p. 444-446). The latter might be an idea, a word or set of words, themes or even

pictures and can examine texts to see the extent of a set of words, ideas and so on, or compare the incidence of ideas, themes across a number of texts (Bernard, 2011, p. 446). In this case, I was searching for studies that dealt with *Dalitbahujan* people and how their cultural beliefs and practices were depicted. As with most content analysis studies, I was interested to use the method "…as means to get to what the texts' users have in mind, what the texts are about, and what they mean and or do and to whom" (Krippendorf, 2013, p. 337). Content analysis generated additional data that could not normally be gleaned through any of the other above methods and can draw on a deductive or inductive approach or be informed by both (see Bernard, 2011, p. 428). When extending the analysis and observation through time and space, the extended case study method is a way of conveying the "texture" of social life that cannot be expressed by graphs or statistics (Farmer, 1996, p. 263) or as Strauss and Corbin note, a "nonmathematical analytic procedure that results in findings derived from data gathered by a variety of means" (1990, p. 18).. If done well, can produce a nuanced analysis that goes

> …beyond counting explicit words or phrases and focus on identifying and describing both implicit and explicit ideas within the data, that is, themes…As Bernard and Ryan (1998) note, the process is deceptively simple: (1) read verbatim transcripts, (2) identify possible themes, (3) compare and contrast themes, identifying structure among them, and (4) build theoretical models, constantly checking them against the data" (Bernard, 2011; Burowoy 1998; Burowoy et al, 2000, p. 16 and pp. 21-28; Creswell, 2007, p. 73; Holmes & Marcus, 2005, p. 1100).

Burowoy characterized the method that "…leaps across space and time, from singular to general, from the mundane to the grand historical themes" (1998, p. 5) and enables the researcher to connect the present with the past and to anticipate the future (1998, p. 14-15). It is commensurate with an autoethnographic approach as well since it

draws on the researchers' past knowledge, studies and reflexive experience (1998, p. 19). It may also involve

> Reconfiguring "historicity" to index the fuller qualities of this social and personal *relationship* to the past and future makes it a complex social and performative condition, rather than an objectively determinable aspect of historical descriptions. Historicity in this sense is the manner in which persons operating under the constraints of social ideologies make sense of the past, while anticipating the future. (Hirsch and Stewart 2006:262)

Likewise, Duneier, in his study of low income people in the US, (2001; see Creswell, 2007, p. 303) was able to expand the boundaries of the neighborhood study by focusing on various kinds of institutions affected the micro settings he was studying and a recognition that lived experience of "the sidewalk" extends to a number of other local institutions (2011, p. 1551-2; see Venkatesh, 2008). These approaches informed several chapters in the dissertation such as how the local health infrastructure is embrocated in institutions near and far from the community (ex. Smith, 2012, p. 127; Melhuus 2002) or how people experience education. By interviewing people and drawing on my own knowledge and experience as a *Dalitbahujan*, I was able to develop several extended case studies in the chapters that follow.

2.6. MIXED METHODS

Mixed methods integrates the insights of two or more methods to answer a question, solve a problem, or tackle a topic that is too broad or complex to be answered by a single method, offering a cognitive advantage unlikely through singular means (Bernard, 2017; Repko, 2008). Hence, my project draws upon existing knowledge to

tease out what is important and also seeks to produce new knowledge using a different process than the methodologies involved solely could do (Geertz, 1980). Russell Bernard (2011, p. 158) argues that mixed methods can fruitfully be applied to diverse methodologies, and perhaps most forcefully by Smith who sees methods as tools that can be deployed by the subaltern peoples to disrupt the archive of "western knowledge" (2012). Others argue that a decolonizing methodology can honor both indigenous and 'western' '…knowledge, knowledge translation, and program development…the possibility to empower, liberate and respect ourselves and others…healing journey that may involve grief, anger, rage, growth, empowerment, coupled with the realization that bondage still exists today" (Marsh et al., 2015, p. 3-5). Anthropology has long drawn from a wide toolkit (Biehl, 2013; Bernard, 2011, p. 222; Ortner, 2006). Petryna, in studying biological citizenship in Russia after Chernobyl, attended weekly meetings of Medical and Scientific Associations (2002. p. 56) and also 60-61interviewed scientific interviews and individual scientists and engineers (2002:65).

A "mixed methods" approach is helpful because it seeks to produce new knowledge using a different process than one method alone could solely do (Bernard, 2011; Creswell, 2007; Hardon et al., 1995). Using mixed methods also provides an opportunity to uncover phenomenon that one did not expect and generated more questions than one can answer, which, according to Anderson, is a compliment to ethnography (2002, p. 1541; see Bernard, 2017).

2.7. THE LOCATION: UNDIVIDED ANDHRA PRADESH (TELANGANA AND ANDHRA PRADESH)

United Andhra Pradesh is one of four states comprising South India along with Karnataka, Kerala and Tamil Nadu (see Figure1 and 2). In these states, Dravidian languages are the dominant languages rather than the Devanagiri script of the north. Andhra Pradesh has a population of more than 49 million people and Telugu is one of the largest languages spoken. The state economy is agriculture, and aquaculture with one of the most rapidly growing economies in India what with an expanding biotech industry and significant plans for more industrial sites or SEZs.

FIGURE 1 INDIA MAP

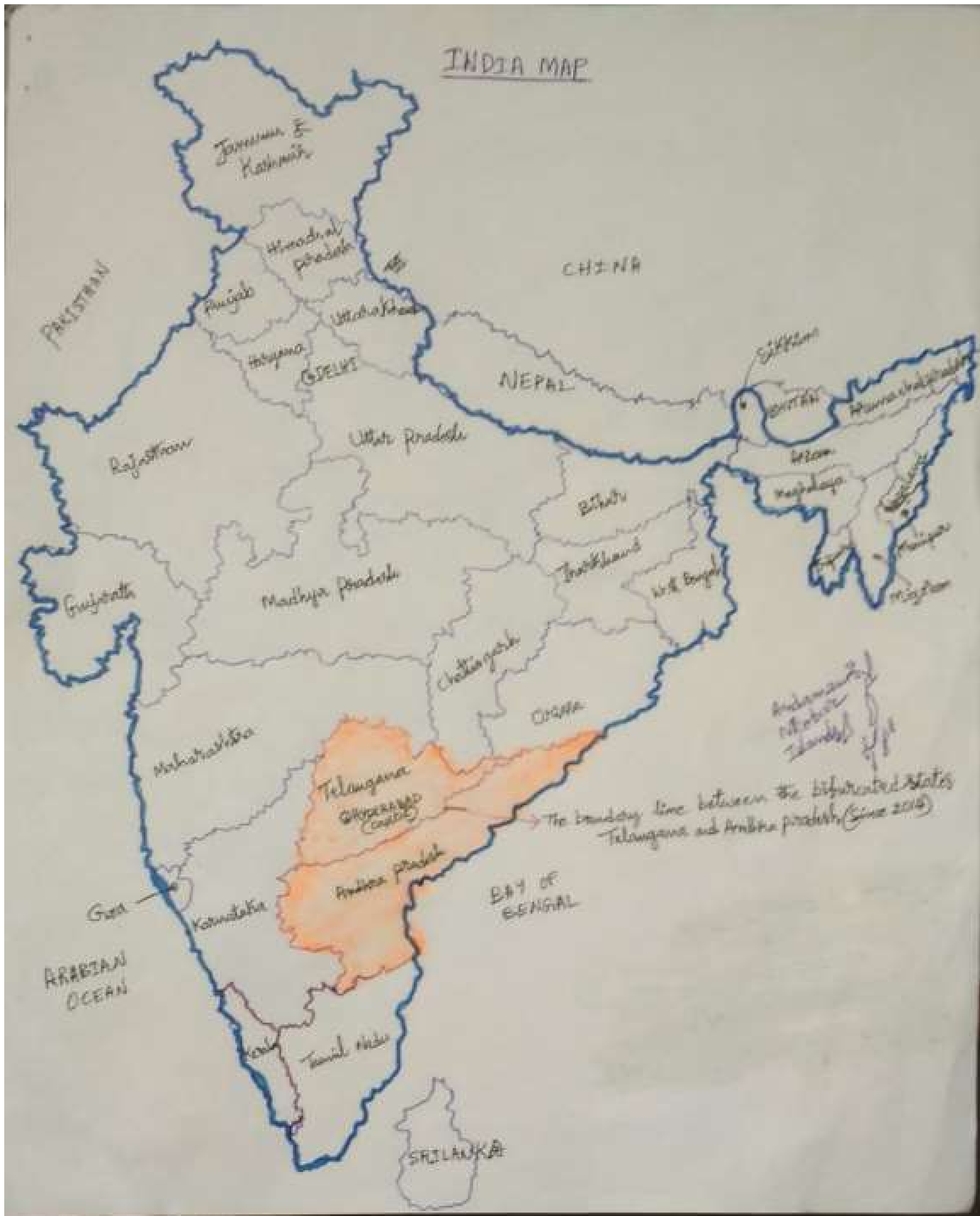
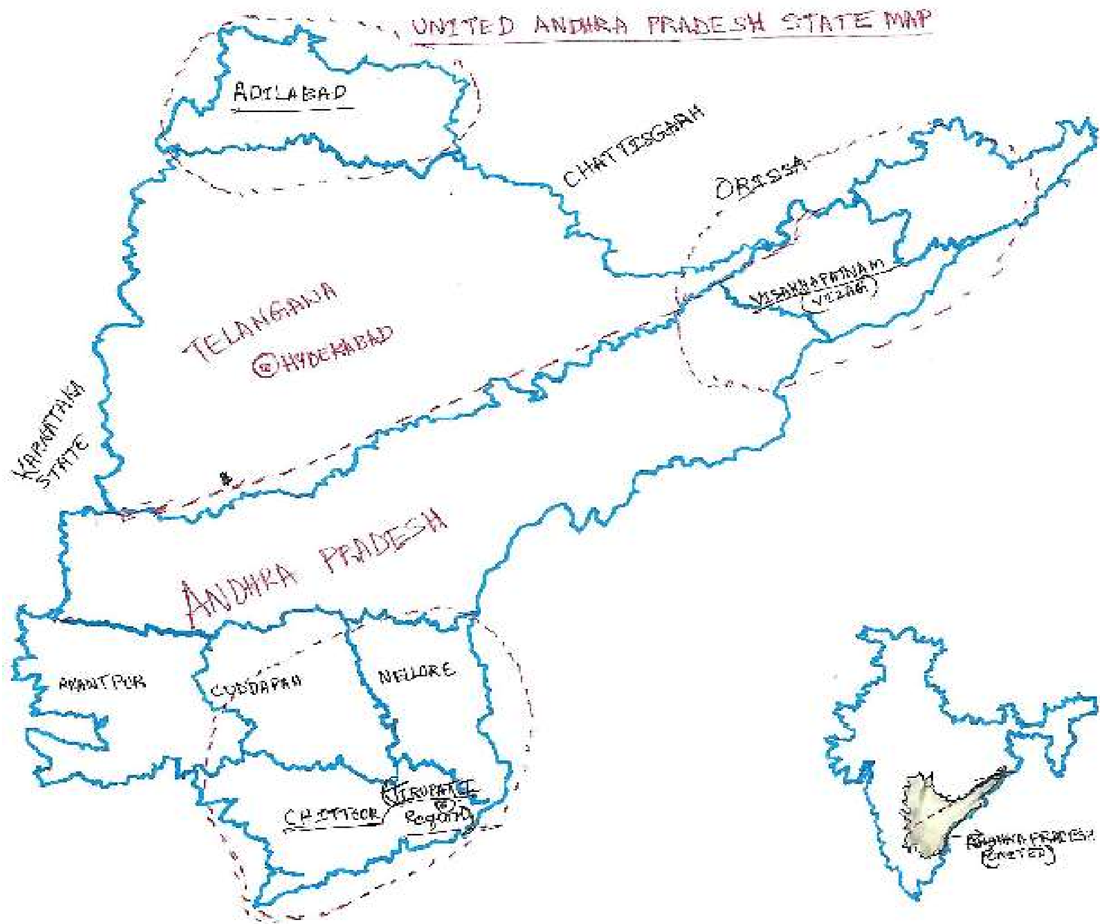


FIGURE 2 MAP OF UNITED ANDHRA PRADESH (UNDIVIDED STATE)



The regions explored in this dissertation are Adilabad[3], Visakhapatnam and Chittoor.

Adilabad is now part of Telengana state but was a part of the United Andhra Pradesh when I did the fieldwork. Chittoor and Visakhapatnam were part of the Madras

[3] I visited the region before Telengana became an independent state.

confederacy during British rule. I also interviewed people in Visakhapatnam along the East coast. While I have retained the consent forms or verbal consent recordings for all the structured or semi-structured interviews, in this dissertation I do not disclose the names of the villages that I visited to protect their identity, and I also do not include the names of individuals I interviewed, opting instead to note their relative age and general regional location.

Bernard suggests that qualitative studies should target no more than 100 respondents for the sample (2011). I interviewed over 100 people using the structured CCM interviews, because I wanted to ensure that I had at least a sample of 100 healers and my initial attempts at the CCM schedule were not successful in that I couldn't get through them all in three hours. Hence, I only used 100 of the fully completed interviews in the dissertation. As I also opted to include some open-ended questions to break up the monotony of the yes/no questions, in some cases the healers spoke at great length on these questions leaving no time to complete the remaining yes/no questions. All the informants were over the age of 30 and the oldest in their 70s and there were 30 women and 70 men. All of the women were "middle-aged" and known as experienced healers, and it may have been due to my own male gender than more self identified male healers came forward for interviews. Among the sample, were some, over 100 were self-ascribed folk healers who I administered the yes/no CCM schedule to and also had some open-ended unstructured interviews with them. I also spoke to many more people than can easily be quantified using unstructured interviews and drew on my own experience and autoethnography in the thesis. "Participant observation" is a strategic method that "puts you where the action is and lets you collect data" (Bernard, 2011, p. 257) allowing

you to see what people actually do as what they say they do (on structured interviews, questionnaires, census, surveys, and so on (2011, p. 265-67). It may be a truism that participant observation is the staple of ethnographic research (see Barnard 2011:256-7; Hardon et al., 1995: Pelto & Pelto, 1996, p. 68), however, in Indian state-based and some ethnographic health research, it is still relatively rare. Arguing that the research process always context specific and empirical, Appadurai contended that ethnographic fieldwork is best suited for revealing people's knowledge, "knowledge is always situated and positional" (1984, p. 14; see Burri & Dumit, 2007; Ortner, 2006). What this means is that the researcher should be privy to multiple contexts and views and to do that requires some fieldwork in a site to be there to see what people say they do and what they actually do, who are privy to information that is difficult to access (ex. Scheper-Hughes, 1995).

All of the interviews were conducted in Telugu and all the respondents were also fluent in it. There are dialect differences in each region that I had to replicate in my interviews by replacing words and phrases. I examine this aspect in Chapter Five when I explore plants and "folk" healing. Most of the interviews took place at people's homes, or where I stayed. I spent between four to six months in each region for the purpose of the formal interviews renting out a room and affording myself the opportunity to spend several weeks with individual healers and to participate in some festivals. As noted above, unstructured interviews were run as conversations with a purpose and took anywhere from 10 minutes to one hour, however, the Cultural Consensus Modelling (CCM) interviews were run formally during a set time and done all in one long session, taking between two to three hours each. I also took the opportunity to follow up with pieces of information in subsequent semi-structured interviews as needed and these

would take anywhere from 30 minutes to one hour at the most. Most people enjoyed talking about their experiences and expressed some satisfaction that someone was taking interest in *Dalitbahujan* peoples.

2.8. LIMITATIONS OF THE STUDY

Every study has its limitations (Anderson, 2006) and mine is no different. The first limitation is that I would have liked to be able to spend more time with the healers than what I was able to do. Secondly, I am aware that there is a lot of diversity among *Dalitbahujans*: class, religion, gender, age, and occupation and so on all play a significant role in the lives of *Dalitbahujan* peoples and these nuances are salient, but these nuances are not the main focus on this project. This project was first and foremost about the shared experiences of *Dalitbahujans* as historically marginalized people. Third, and this may seem a bit redundant, but although I am an “insider”, this does not mean I am privy to all meaning and nuances even among people in my own village and region. Fifth, I would like to do another version of the Cultural Consensus Modelling method that was less broad in focus and more targeted on nuances of particular health domains, such as a single disease category, or treatment path. Finally, although I take a decolonizing perspective, in shape and form I am, after all, writing documents in English here for a western university (see Cupples & Grosfoguel, 2018; Dei, 2012; Dillard, 2008; Lavia & Moore, 2012; Nyamnjoh, 2012) and there are many fields of decolonization that are not homogenous (e.g., Naha, 2017; Pieterse & Paresh, 1995). I intend to translate the work into Telugu in the near future and with that process, I expect that I may have to put a lot of efforts into making it understandable to *Dalitbahujan* readers. With this effort, a hope that my critique of the ways that *Dalitbahujan* peoples have experienced colonization,

neoliberalism, biomedicine and education will be a step toward freeing the mindset of stigma and shame that haunts many *Dalitbahujans* inside and outside India and that I myself have experienced at many points in my life. Indeed, "social science research, like any science, can be used to enhance our lives or degrade them" (Bernard, 2011, p. 12; ex. Scheper-Hughes, 1993). Like marginalized ethnicities in the western context (Yosso, 2005), I hope that my project will also help to build solidarity among *Dalitbahujans* and others as part of the decolonizing methodologies (Dei & Kempf, 2006; Fisher, 2012; Friedel, 2011; Fujikane, 2012; Tuck & Yang, 2012) that we can celebrate our differences and cherish our similarities and also have a share in the resources of Indian society that has been too long denied and consider how to proceed collectively in the future. In the next chapter I explore the context for health and ill health through time and space in India and Andhra Pradesh.

CHAPTER 3 KNOWLEDGE, REGULATION AND HEALTH IN A TECHNOCRATIC INDIA

In this chapter I explore literature on the matrix of biomedicine and how some forms of traditional healing in India and "Asian" systems differ from it. In the second section I explore specifically how this matrix has impacted *Dalitbahujan* peoples by making a toxic context during colonialism and into the post-colonial era. This chapter provides the literature review for the dissertation by paying particular attention to colonialism, capitalism (and its ideological twin, neoliberalism) and biomedicine, the duo that continues to shape their lives in the contemporary period.

3.1. MATRIX OF BIOMEDICINE

Cohen, writing about the boundaries between medicine and religion (2006), refers to biomedicine as a "delusionary matrix" built upon an epistemological foundation of empiricism, scientific principles and evidence-based efficacy (Pramukh & Palkumar, 2006, p. 2). Lock and Nguyen (2010) contend that biomedicine is not an autonomous entity with uniform and universal effects, but rather a set of beliefs and practices that are based upon culturally informed values, and constraints when put into operation in specific local and global contexts (e.g., Baronov, 2008; Corin, 1994; 2010). Biomedicine is embedded within its own cultural matrix, has cultural rules, meanings and values that are attached to particular activities and entities (Meyer, 2009, p. 67). Yet, this cultural matrix is presented as *a priori* rather than a set of unexamined assumptions about disease categories and although it was "morally neutral" (e.g., Corin, 1984, p. 94; Lock & Nguyen, 2010, p. 11).

3.2. CULTURE AND THE CULTURAL MATRIX

In order to think about biomedicine in terms of its cultural foundations, we need to begin by briefly examining the concept of culture. Some scholars have viewed culture in terms of a "...matrix of collective influences that shape the lives of groups and individuals" (Corin, 1994, p. 101; 2010; e.g., Rao, 2005, p. 291). Anthropologist Marilyn Strathern, for example, employs culture as a concept that draws attention to "...the way things are formulated and conceptualized as a matter of practices or technique. People's values are based on their ideas about the world; conversely ideas shape how people think and react...ideas always work in the context of other ideas, and contexts form semantic (cultural) domains that separate ideas as much as selves..." (2010; Burri & Dumit, 2007; 2010; Clarke, Shim, Mamo, Fosket, & Fishman, 2003; e.g., Corin, 1994, p. 101). One has to be careful, however, not to draw too narrowly upon culture only as a set of values as though these were divorced from material, political and/or religious interests and power (see Cohen, 2006; Feierman et al., 2010, p. 123; Harriss, 2009, p. 6). Political sociologist John Meyer identifies a tendency in the social sciences to sometimes bring culture "in through the back door as an unanalysed residual force of such plasticity that it can be stretched to fill the holes of the argument" (2009, p. 73).

India provides a good example of Meyer's concerns. The class background of the diverse cultural groups inhabiting rural India, peasant and/or semi peasant (Harriss, 2009), is very much linked to the extent to which health and illness are experienced and treated. Among very impoverished sections, whether or not illness will even be perceived, dealt with and treated varies as compared to the affluent middle class strata (Dilip, 2005). Indian Medical Sociologist Dilip explains, "the data reconfirms that

inequities in access amongst lower socio-economic groups plays a critical role in their perception of illness and health seeking behavior, especially so in a context where health has to be purchased from the market" (2005, p. 249). Lock and Ngyuen reinforce this by noting that "...the recognition, including the diagnosis and management of episodes of illness, is the product of culture and does not emerge spontaneously from nature...what will count as disease and illness comes about as the result of particular practices embedded in specific historical, political, social and technical relationships" (2010, p. 33; Bandyopādhyāẏa, 2009; Banerjee, 2014; Rose, 2006; Sargent, 2016). Thus, culture itself develops out of and is continually influenced by these other dimensions of economic and social life.

3.3. Dogmatism and objectivity

Anthropologist Ellen Corin (1994, p. 2010) postulated that biomedicine reflects something deep about North American society and human nature (1994, p. 98), the end result of which tends to confirm and reproduce "...conventional knowledge that is incapable of taking seriously alternative ways of thinking" (1994, p. 98; Banerjee, 2014; Bandyopādhyāẏa, 2009; Rose, 2006; Sargent, 2016). This truism sums up the dogmatism that is quite often part and parcel of biomedical beliefs and practices because one of the central tenants of biomedicine is of its assumed objectivity. The idea is that "...because it is grounded in 'science', it has a special technical status based on objectivity and standardization independent of society and culture" (Lock, 2013; Lock & Ngyuen, 2010, p. 53).

In India there was a post-colonial emphasis on reinforcing biomedicine up until the early 1980s while marginalizing the Indian Systems of Medicine were marginalized

(Abraham, 2005; p. 129-132; Attewell, 2013; Mukherjee, 2017; Purohit, 2017; Zimmermann, 2013). The privileging of biomedical explanations is also affirmed by Lock and Nguyen in their recollections of the prestigious journal, the Lancet, and when it refused to publish findings that contradicted the dominant explanation for the cause of cholera in the late 1800s (2010, p. 34; Bandyopādhyāẏa, 2009; Banerjee, 2014; Rose, 2006; Sargent, 2016). Corin reminds us that "the 'categorical' approach to sociocultural factors fits comfortably within the perceived scientific paradigms, which strips human realities of much of their social context. Other approaches to social and cultural realities tend to be disregarded or dismissed" (1994, p. 98; e.g., Abraham, 2005, p. 192). In the sections that follow, I will provide some examples of the sort of things that are often postulated as *a priori*, and objective, but are actually specific to the cultural matrix of biomedicine.

3.4. The individual

Along with dogmatism about its own objectivity and separation from culture, one of the central pillars of this cultural matrix, or "...perspective on reality..." (Corin, 1994, p. 101) involves conceptualizing health and disease as an individual matter. It is worth quoting from Corin who extrapolates on this point, "...epidemiological studies in Western industrialized societies generally assume that host response mechanisms-coping style, individual biology, social resources available to the individual-operate only at the level of the individual" (1994, p. 94; Banerjee, 2014; Corin, 2010; Rose, 2006; Sargent, 2016).

Corin likewise problematizes the "western" notion of the person which is premised on the assumption that ".People are independent beings whose bodies are fundamentally separated from each other and function autonomously. This in turn, according to Corin, presumes 'a highly differentiated mentalistic self which looks out on an objective, impersonal, and naturalistic world...such a conception of the person is far from being universal, either across cultures or over time within our own culture" (1994, p. 113). There would, of course, always be exceptions to this, but the vast majority of *Dalitbahujans* would not think of themselves in terms of an isolated "individual" in the way that it is assumed in the cultural matrix of biomedicine of the west. Meyer certainly seems to see more credence in "...taking collectivities seriously as actors..." to resolve "...some of the difficulties of individualistic models" (2009, p. 70) and forces researchers to examine the broader environment in which these collectivities operate.

What biomedicine misses is the fact that collective experiences, or the wider social environment (Horden & Hsu, 2013) powerfully impact people's health status (Corin, 1994, p. 94). For example, it is well known that subaltern peoples are deeply affected by factors well beyond "individual choice" (Waterworth et al., 2015) and that people with few or no social ties are found to die earlier than those who were more socially embedded (1994, p. 94), or who have better subjective well-being (Diener & Chan, 2011). Moreover, the cultural matrix of biomedicine is vested in removing health from "...levels of living, of conditions of work, of access to food, of striving for equality and justice; it has come to be equated with doctors, hospitals and technical interventions (see Biehl & Petryna, 2013; Gangolli, Duggal & Shukla, 2005, p. 4; Prasad, 2007; Rao, 2004, p. 14; Rao, 2009). Rao, an Indian physician and social scientist, observes that

during his training as a physician, he was never told or asked to "understand the problem historically...it seemed evident – oh woeful ignorance! - that history and politics had nothing to do with health problems...we were never taught that colonialism was accompanied by the depopulation of several peoples, indeed continents" (2004, p. 13; see Gangolli, Duggal & Shukla, 2005, p. 3).

Cuba is often invoked by researchers as an example of a nation that realized a long time back that medicine alone would not deliver good health and trying to broaden its approach to include culture and non-biomedical approaches (Feinsilver, 2009; Panitch & Leys, 2009; Stöckelová & Klepal, 2017). Cuba was also careful to ensure that medicine was not reduced to the narrow aims of the market. Significance was placed on the cultural continuity between the doctor and the patient and good health was understood to encompass a number of variables, including a strong link to a collective, all variables that were understood as being external to the individual body (Coburn, 2009, p. 42-43; Farmer & Arachu, 2004). Feinsilver reinforces this by noting that "health sector reform, therefore, was only one part of a larger societal transformation which included universal free education, a guaranteed minimum food ration, very low-cost housing and universal social security, among other things", all of which were enshrined in the constitution (Feinsilver, 2009, p. 217). Or as Rao pointed out "The problems of hunger and infection, and thus the diseases of poverty, had been fought not with magic wands, nor by doctors trained on western lines, but with food and employment" (2009, 264). While Cuba has obviously faced many challenges over the years, it does offer some insights into why biomedicine might fail in contexts that do not consider the above noted economic and social variables (Green, Carrillo, & Betancourt, 2002; Panitch & Leys, 2009).

Ethnographic studies have shown that the conception of the self as a neatly demarcated individual cannot be understood as universal and yet it is an "unquestioned assumption" of biomedicine (Lock & Ngyuen, 2010, p. 11). Yet there are other forms of "self" (Moore & McClean, 2010) and embodiment that defy biomedical explanations. Another example of misconstrued selves lies in epidemiological studies which identify "at-risk" populations and associated factors" or in terms of "variables" (Corin, 1994, p. 101; 2010; e.g., Lock & Nguyen, 2010, p. 25). Yet, this type of research has mainly been developed to explain differences in illnesses "...as medically perceived" (see Dilip, 2005, p. 249). Tied to this is the problem of agreeing about the parameters of disease criteria (Corin, 1994, p. 6). Most epidemiological research tends to imagine that the mind and body are separated in Cartesian fashion that is characteristic of biomedicine (Cohen, 2006, p. 36). In this conception, "...the individual is the basic unit of society and is conceived as the bearer of fixed psychological dispositions. Society is an epiphenomena the sum of the dispositions, beliefs, decisions, and actions of the individuals who 'belong' to it. The power of this conventional knowledge lies in the fact that people regard it as self-evident, but it also conditions the way that data are collected and interpreted" (Corin, 1994, p. 98). Cohen (2006) likens biomedicine to the "pill-blue reality" of the Hollywood film The Matrix, in which it perpetuates an imagined human being as though s/he were only material and induces fear and desperation in "a 'race for the cure' rather than focus on 'care of the soul'" (2006, p. 105). Biomedicine has long been faulted for some fundamental failures (Green, Carrillo, & Betancourt, 2002) such as fragmenting the mind from the body, for failing to adequately incorporate the "connections between a patient's

thoughts and feelings and physical symptoms and the physiological aspects of the disease" (Cohen, 2006, p. 10; Horden & Shu, 2013; Savage-Smith, 2013:89).

Stripping culture, history, economy and politics away from human beings allows biomedicine to then focus exclusively on the body from a seemingly objective point of view; as deceptive as this gaze is (Mol, 2002). Lock and Ngyugen problematize that "objectivity" reflects an "epistemic virtue" that is part and parcel of the moral economy of biomedicine and that favours standardization and rule-bound practices (2010, p. 36; Xu & Yang, 2009) . This idiosyncratic perspective emerged in the 19th century in Europe. One of the significant milestones in this history is the germ theory of disease which tended to internalize and miniaturize the "environment" and the beginnings of "...understanding bodies as essentially the same everywhere" (2010, p. 44). Lock and Nguyen postulate, however, that the body cannot be so easily standardized and universalized and it is even more difficult today to find populations whose biology has not already been modified by previous biomedical interventions (2010, p. 53; see King, 2013; Rajan, 2012).

3.5. UNQUESTIONED ASSUMPTIONS AND ASSUMED QUESTIONS

It is important to note that the above noted dogmatic assumptions strongly determine the kind of questions that are asked in biomedical research (Lock & Ngyuen, 2010, p. 35). As Corin poignantly notes "...the medical frame of reference combined with an excessive concern for instrumental reliability can severely limit the research questions posed and the methods used to gather and interpret evidence" (1994, p. 98; 2010). Corin cites an example of a cross cultural study sponsored by the WHO in which, oddly

enough, the variations in samples were discounted outright as anomalies. A closer look, however, revealed that the Indian researchers on the team were very skeptical about the applicability of the study instruments to the Indian context and refuted the assumed universality of the measures employed. This revealed a bias toward bodily universality (Corin, 1994, p. 100), something that Lock and Ngyugen (2010) devote the majority of their recent book to refuting by showing that "the illness experience is not a simple mirror of the disease process" (Corin, 1994, p. 113; 2010). This is affirmed by Pramukh and Palkumar's call for research projects that are "...based on local, indigenous perceptions, classifications, values, measures of environmental quality and change that reflects local observations and knowledge systems..." (2006, p. 3).

A final, yet significant aspect of the cultural matrix of biomedicine is that everything can be commoditized and this understanding has become "commonsensical" among most nations where biomedicine dominates (Adams, 2010, p. 40-45; Biehl & Petryna, 2013; Farmer, Kleinman, Kim, & Basilico, 2013; Packard, 2016; Panitch & Leys, 2009). Linked to this are the articulations of biomedical interventions with "productivity" and "efficiency", again, which further strengthen the commodification of healthcare (Panitch & Leys, 2009, p. 15). Biomedicine's major focus on the individual is certainly reified in capitalist economies for whom the individual is the main unit of production (Duggall, 2005, p. 23) not to mention that fact that "...the development of biomedicine also occurred at the moment in which the European capitalist system was establishing its foundations (Prasad, 2007, p. 3495) and which India was vitally important in contrast to other colonies that were not that important.

3.6. INDIAN MEDICAL PLURALISM AND CULTURE

Corin observes what might be a kind of truism in anthropology at least, that "cultural' influence is always easier to identify in unfamiliar societies. She states that "...as long as one remains within one's own cultural boundaries, the ways of thinking, living, and behaving, peculiar to that culture are transparent or invisible. They appear to constitute a natural order "...our own culture is transparent to us as the air we breathe" (1994, p. 11; 2010, p. 115-118). Biomedicine is also like this and takes on *a priori* appearance as discussed above.

This has also been characterized as "syncretism" referring to the borderland between "...medicine and religion, between the scientific and the mystical, between knowledge that is considered objective and publicly accessible and knowledge that is considered subjective and privately accessible and between outer and inner, material and spiritual overt and covert, and quantifiable and perhaps immeasurable" (Cohen, 2006, p. 16; Corin, 2010, p. 108-120). Cohen (2006) advocates for a kind of medical pluralism and humanism that to some extent at least, is realized in India (Nisula, 2006).

Medical pluralism: "humoral physicians, homeopaths, yoga experts, allopaths, exorcists, and spiritual gurus all claim their share of patients and clients, many of them pain-afflicted. The humoral traditions of Ayurveda and Unani have been revived over the last century, although they face tough competition with biomedicine, which has the lion's share of government funding and the prestige of science and modernity" (Pugh, 1991, p. 21). At a basic level: "the resort by people to more than one kind of medical assistance, often for the same condition" (Lock & Nguyen, 2010, p. 55), is not just evidenced in India but in other places around the world as well (Adams et al., 2010; Cohen, 2006;

Hickman, 2007) and given biomedicine's limitations, people all over the world continue to use various forms of "complimentary medicine" (Jin, 2010; Lock & Ngyuen, 2010, p. 54) and these are a dynamic aggregation of ideas and practices that are in constant flux and never really become "finalized" (Hickman, 2007, p. 305). Citing the pioneering works on medical pluralism by Charles Leslie, Shamshad Khan indicates that it is because of Leslie's life-long project that "makes us see Asian medical systems, unlike the conventional understanding in the West, as intellectually coherent, intrinsically dynamic, evolving, and culturally mediated traditions (Khan, 2006, p. 2788).

Writing for a "western" audience, Cohen postulated that a "new" global healthcare (Farmer, Kleinman, Kim, & Basilico, 2013) is in the making and that it "...will no longer rely exclusively on biomedical dominance of the late nineteenth and early twentieth centuries, but rather, is beginning to accommodate a broader pluralism that is capable of embracing-in whole or at least in part- some of the theory, epistemology, and practice of other traditions (2006, p. 156). Prior to European colonialism, India's longest standing medical systems, (ISM), Siddha, Ayruveda and Unnani, were in place. These forms of humoral medicine focus on body heat, blood and digestion and tend to have an "hydraulic" view of the body (Prasad, 2007, p. 3495). The Siddha system is the oldest and linked to the Dravidian language family, ancient texts and the Indus civilization that existed prior to the invasion of the Persians. Ayruveda is similar to the Siddha system but draws on the Vedic texts, whereas Unani flourished under the Mughals in India since the 16th Century and was subjected to scientific scrutiny (Bala, 2012, p. 125-130; Hardiman & Mukharji, 2013; Mukharji, 2016). As in other traditional "Asian" (Leslie & Young, 1992; Zhan, 2009) medical systems tended to focus on close training of the student in the

home of the practitioner and in many cases, the methods were transferred across generations and within particular families (Prasad, 2007, p. 3492). The origins, content and histories of these medicines are complex and hotly debated by Indian practitioners and scholars alike (Abraham, 2005; Khan, 2006, p. 2788), and most Indian citizens have some knowledge of these histories from their experience in schools, the popular media, or with through having used the medicines themselves (e.g., Gangolli, Duggall & Shukla, 2005; Nanda, 2003). One thing they all have in common, however, is the tendency for the practitioner to try and understand bodies in their social context (Lock & Ngyugen, 2010, p. 40) and to "externalize", that is, to "...locate the origins of disease largely outside the human body and include references to human social relations, the environment, and the spiritual or cosmic order" (see Cohen, 2006; Dash, 2006, p. 307; Lock & Ngyuen, 2010, p. 60).

In addition to this are the multitude of folk beliefs and practices in rural India that have not been codified in texts. These are transmitted orally by the practitioners, many of whom are women (Hardiman, 2007; Hardiman & Mukharji, 2013). It has been noted that these sorts of practices are "the most accessible and most used source of medical care in the country" (Abraham, 2005, p. 194).

With the arrival of the British, a number of locations for tropical medicine were developed, and confined to "colonial enclaves" such as prisons, army, hospitals and civil stations (Khan, 2006, p. 2789) mainly to treat the foreigners who were ill-adapted to live in a hot climate and lacked the immunity of the local people to a number of local ailments (Duggal, 2005, p. 23). The British found it convenient and cheaper to allow for the Indian systems of medicine to treating the local people and were not interested to extend their

imported forms of treatment to the local people (Bala, 2009; Hardiman & Mukharji, 2013; Mukharji, 2016) and the forms that were created were often insulting and unpalatable, transgressing local gender norms and cultural values (see, for example, Ramanna, 2012). Since the 1980s, there has been a "surge of interest in medical history in India under colonial rule" (Khan, 2006, p. 2787). By the end of 1900s, there were also national and state-wide associations for the preservation of ISM (Indian Systems of Medicine). Lock & Nguyen (2010), however, grossly overestimate the rejection of western biomedicine in India and focus too much on the idea that preservation of ISM was mainly an expression of nationalism (e.g., Hardiman & Mukharji, 2013). It is true often were expressions of nationalism in the assertion of ISM, and today in the "...hegemonic role and presence of multilateral organizations such as the World Bank and IMF in shaping national health policies..." (Bala, 2009; Khan, 2006, p. 2787; Mukharji, 2016), assertion of ISM was at times, and is a form of defiance yet, is also has to be emphasized that these systems have been preserved for so long because many people believe that they work and are superior to biomedicine.

At the turn of the 20th Century there were numerous local associations across India, as well as nationally, mainly interested in the preservation of Ayruveda and naturopathy (Abraham, 2005, p. 193; Duggal, 2005). After Independence, the above three Indian Systems of Medicine (ISM), with yoga and naturopathy, were encouraged and protected alongside biomedicine and a Department was established for them within the public health system soon after Independence (Abraham, 2005, p. 189; Banerjee, 2014; Mukharji, 2016). Mahatma Gandhi promoted Indian systems of medicine whereas the first Prime Minister Jawaharlal Nehru, promoted excellence in European style

biomedicine (Abraham, 2005, p. 190; Priya, 2005). According to Prasad, Gandhi's motto was "…self-reliance ('*swawalambana*) which is possible only where there is self-health reliance ('*swasthyawalambana*'). 'To deepen modern (English or western) medicine is to deepen our slavery' (2007, p. 3496). Gandhi strongly critiqued biomedical doctors on the basis that they only treat the body and "...practically ignored the importance of the soul or the spirit within" (Khan, 2006, p. 2793) and that hospitals focused too much on curing rather than preventing ill health in the first place. Since the 1950s, ISM and biomedicine have developed side by side, albeit, with the latter being provided more funding and stronger endorsement (Banerjee, 2014; Mukharji, 2016). In the 1950s Nehru clarified that "the science of medicine would not be divided up into compartments but would be built upon solid foundations of past and present experience tested by modern scientific methods...The proper approach, therefore, should be that any system of medicine to be followed or encouraged must be modern and up-to-date and should take advantage of all the accumulated knowledge we possess (Khan, 2006, p. 2790). In the 1970s the state began to pay more attention and put more funding toward these systems and developed a national AYUSH, which stands for Ayruveda, Yoga, Unani, Siddha, and all to be added, homeopathy (Abraham, 2005, p. 194; Bala, 2012, p. 29-35; Mukharji, 2016). There are a large number of state sponsored and private colleges and research centers specializing in these systems, however most tend to mirror allopathic training structurally and employing the scientific method as much as possible, are regulated by the state and produce drugs for sale on the market (Abraham, 2005, p. 194-6) with more than 60,000 allopathic formulations (Abraham, 2005, p. 201). The aim of these modern institutions of ISM and homeopathy is to conduct 'scientific research' and 'prove' the 'scientific value' of their

knowledge as has also happened at different time periods in India (Attewell, 2013; Bala, 2009; Hardiman & Mukharji, 2013; Mukharji, 2016; Zimmerman, 2013). This is not that surprising, given that any discussions about public healthcare in India, have always centered on allopathy, which is taken as the "gold standard" (Lock & Nguyen, 2010, p. 54). Abraham notes that less than 5% of the total amount provided for public healthcare is provided to these systems (2005, p. 187). From the point of view of the state, until the past decade or so at least, the systems of medicine that existed prior to colonial rule tended to be treated in Nehruvian fashion, which means as an afterthought by the state (Arnold, 2016; Bala, 2012, p. 40-55; Duggal, 2005, p. 15; Hardiman & Mukharji, 2013; Lock & Ngyugen, 2010, p. 23).

Codified in texts or not, these are living systems and many people practice one or more of these systems at various points in their lives and they continued to exist in India because large people fought to preserve them and continued to use them. Most of the research on this subject in India indicate that people tend to rely on traditional systems of healing for less severe ailments and turn to allopathy or biomedicine when the conditions worsens (Arnold, 2000; Gangolli & Duggal, 2005; Hardiman, 2007). Abraham notes that social science research in the 1960s and 70s revealed that "...allopathy was physically inaccessible to a large segment of the rural masses, and it was this vacuum that the other systems occupied" (2005, p. 191). But Abraham (2005, p. 190) also notes that there was a growing "disenchantment" with biomedicine and for the excessive overuse of medication (Bala, 2009, 2012; Hammer, Aiyar, & Samji, 2007, p. 4051) their side effects and what were perceived as invasive techniques.

India has had many sages and travelling wanderers who have also contributed to the Indian Systems of Medicine and/or to Yoga (Bala, 2012, p. 39-44; Cohen, 2006), meditation and other forms of health enhancing behaviors. The long list of people who contributed to this are enshrined within ancient palm leaf documents, thousands of which have not been interpreted since the time they had been written. There are too many to mention here (Bala, 2012; Prasad, 2007, p. 3493; Xaxa, 2014), but Cohen does note of one Yogi Vasistha who promoted the idea that human beings "...live within a matrix of delusion and seek ways to achieve freedom from its power..." (2006, p. 102) and this included seeking freedom from illness and aging (Cohen, 2006, p. 102). Healthy eating, long term consultation with ones practitioner to understand the external forces affecting the individual, proper rest when illness strikes, regular meditation and Yoga are ways of maintaining and restoring balance (Arnold, 2000, 2013; Bala, 2009; Cohen 2006; Horden & Hsu, 2013). Yet, the cultural matrix of biomedicine cannot accommodate these approaches. These externalizing beliefs and practices are incommensurate with biomedicine's focus on the internal, on germs, bodies and individuals.

3.7. PLURALISM AND ITS SCEPTICS

It should also be stated that medical pluralism in India fluxes between the tension of people who lack access to biomedicine and those who prefer to draw on the time-trusted traditional approaches first (Abraham, 2005; Bala, 2012; Gupta, 2005; Johannessen & Lazar, 2006; Priya, 2005; Rao, 2009). Abraham notes that there is unevenness in the availability of Indian Systems of Medicine (ISM) and that they tend to be concentrated in certain states such as Kerala, Tamil Nadu, Maharastra, Madya

Pradesh, UP, West Bengal and Karnataka where they are protected in the state constitutions (2005, p. 198).

But some do not think that India needs more medical pluralism or more ancient systems of healing but rather should be developing a stronger modern biomedical sector that is publically funded (Boomgaard, 1996; see Gangolli, Duggal & Shukla, 2005; Hardiman & Mukharji, 2013; Mukharji, 2016; Qadeer, 2011). The argument is that there have been many changes to the indigenous systems that are due to colonial rule and capitalism which have deleteriously affected the indigenous systems of medicine, their practitioners and their patients. Specifically, with the overwhelming bulk of India's healthcare system being private, and with the state all the while endorsing biomedicine, so too a desire to have access to biomedicine has increased. There are consequently many people who may be regarded as "quacks", or practitioners have no 'real' training and yet who sell their services to people who lack access to public healthcare on a credit basis with interest rates of up to 50% (Hardiman, 2007, p. 1406). Hardiman further indicates that the ones presenting themselves as doctors "...rely mainly on penicillin injections and saline bottles..." (2007, p. 1406) and *Dalitbahujan* rural peoples, often fall victim to this (Bala, 2012; Hardiman & Mukharji, 2013; Johannessen & Lazar, 2006). Rather than endorsing medical pluralism, Christian missionaries and faith healers have also wielded biomedicine to ST in order to get converts and have asked people to denounce their traditional healers prior to conversion (Hardiman, 2007). There are also numerous Pentecostals who share their "...miraculous cures through faith...." (Hardiman, 2007, p. 1406) through the internet.

Thus, while Hardiman generously acknowledges the role that subaltern medicine could play in medical pluralism, he criticizes the Indian state for only paying a lip service to pluralism, and in practice, profit-based biomedicine is promoted (2007; e.g., Hardiman & Mukharji, 2013). At the same time, India's most vulnerable lack access to qualified biomedical practitioners (Sharma, 2014; Singh & Badaya, 2014) and risk their lives by paying for the services of unqualified ones. With increasing land disenfranchisement, moreover, tribal peoples are also losing access to the important herbs that they need to heal in the central India (Hardiman, 2007, p. 1405; Bala, 2012; Johannessen & Lazar, 2006). Hardiman therefore calls for ST based medicine to be promoted noting that "...in all, ayurvedic texts speak of only about 650 plants, 250 of which cannot be properly identified....in India as a whole, tribal people use about 60,000 species in their healing ...a rich resource that is being underutilized, especially as there is evidence that some of these plants can treat conditions that are considered incurable in allopathic medicine (2007, p. 1405; Arnold, 2013; Hardiman & Mukharji, 2013). Thus, while India is often promoted as an example of the possibilities of medical pluralism, and indeed there are numerous living systems of medicine there, so too is the case that there is much more that could be realized if the state paid more than just lip service and a meagre amount of funding toward it.

One of the more vocal critics of the bold acceptance of all forms "traditional systems of medicine" and medical pluralism is Meera Nanda (2003). Nanda has been a central figure in a debate involving the supporters and naysayers of social studies of science network. Among other scholars, anthropologists form a strong body of supporters for the social studies of science and for the relativity or cultural concepts of health and

illness some of which has been pointed out above. Nanda, on the other hand entirely dismisses this network and their research on the basis that they are composed of mainly foreign (but also some key Indian expats) scholarly elites who want to keep India mired in superstitions and irrational practices. She charges that they are guilty of committing cultural hegemony (Arnold, 2013; Harriss, 2009, p. 7; Prasad, 2007, p. 3491; Pati & Harrison, 2008) and purports that they contribute to holding back India's progress as a world biotech leader, and to the promotion of science itself. Nanda strongly advocates for the biotechnology to be publically available and for science to be mobilized among the masses, an argument also posed by Fischer (2013). A strong advocate of rationalism, logic and the idea of the progress of science (Khan, 2006, p. 2787), Nanda explains her view as follows,

> ...the exclusion of the supernatural as an explanation of natural phenomena, is where today's scientists draw a line between science and other ways of knowing nature...while exclusion of the supernatural from the natural is necessary for demarcating science in modern times, it is neither necessary nor sufficient for understanding pre-modern of non-Western scientific traditions...what else is required for the enterprise to be distinctively scientific?...to repeat, science seeks to infer the principles of nature that best explain the observed phenomena. To explain the observed world is of course not foreign to religion, myths and plain old common sense. But science provides a distinctive mode of explanation which is capable of public, inter subjective testing, and attempts to hold beliefs tentatively in proportion to the empirical evidence available. Scientific explanations succeed because scientific method is devised, at least as an ideal, to control the intervening factors in a way that allows the causal structures of nature to push back against the conjectures of the scientific community, leading to a gradual approximation of our knowledge claims with the underlying structures in nature (2003, p. 69).

Nanda is part of a large network of scholars and scientists who have united in the *People's Science* Network (see Nanda, 2003, 2016) a group that advocates for public healthcare among other things such as promoting science among India's poor youth and encouraging them to partake in the biomedical excellence that India is becoming famous for.

It should also be pointed out that Nanda strongly advocates for the "reality" or efficacy of biotechnical interventions, the ability to cure diseases through biomedical technologies and interventions, which in spite of problematizing of the universal body, Lock and Ngyuen (2010, p. 157) also note that biomedicine has accomplished a great deal to alleviate human suffering (Nanda, 2016, 2012). While Hickman (2007) queries whether illness is a manifestation of the *mind or the body?* Nanda strongly reaffirms, *it is the body*. Strongly advocating the enlightenment goals of the potential for technology to improve human development, Nanda believes that biology is indeed subject to universal laws and in certainly in sharp contrast to what Lock and Nguyen argued (2010, p. 20). Nanda would further argue for the progress in the sciences and a recognition that "...application changes what it means to be human" (Lock & Ngyuen, 2010, p. 23) and with these changes so too must the scientific theories be revised (2003; e.g., Nanda, 2016).

It should, however, be noted that Nanda does not completely discard Indian Systems of Medicine and advocates the idea that human societies have always practiced science and alludes to the achievements of the Indus Valley hydraulic civilization (2003, p. 45). What she is opposed to is the way that the social studies of science practitioners advocate, an extreme relativity that lacks efficacy. Nanda is selective in the parts that

should and should not be included (Nanda, 2012, 2016) and wonders how many "quacks" anthropologists might have promoted instead of the true practitioners of ISM? She queries whether the social scientists who go too far with cultural relativism understand the ways that their research affirms a vicious and violent forms of Hindu Nationalism in India?

The latter consists mainly of a form of "Vedic science" that is clearly used to mystify people into old irrational superstitions and that are deployed as a form of "expert knowledge" by Hindu nationalists. She points out that when the British colonized India, the British Orientalists used the Indian Brahmins to interpret the Vedas along Victorian lines and entirely ignored the South Dravidian texts, some of which were much older and wide spread than the Vedic texts of the North in Sanskrit (Nanda, 2003, p. 89; 2016) and that much was lost in this translation.

Arguing that in the process of colonization, the British promoted irrational beliefs and practices among the Indian populous and some of that thinking manifests on Vedic science of today (2003, p. 214; 2012), Nanda explains,

> The Hindu right wing is, of course, unabashedly essentialist. What is only "strategically" essentialist for the left-wing post-colonial theorists become a part and parcel of the eternal "Hindu mind" in the right wing post colonialism. The left-wing postcolonial scholars in other words, have been doing the spadework for the right wing post colonialism...It is the cause of a "deeper" decolonization of the mind that they profess to fight for, when they rewrite science books to include astrology and *vastu*[4] as science, and when they find the Vedas to be the real source of all sciences" (2003, p. 156).

[4]The science of Hindu construction along Vedic metaphysical lines.

Nanda is characterizing what Cohen refers to as "toxic faith" (2006, p. 132) abusing religious authority for the purposes of conversion or financial gain (see Hardiman, 2007, p.1405-6; Hardiman & Mukharji, 2013) is a form of this, and certainly here we would include "political gain" (Nanda, 2003, p. 63). As Nanda notes, "my motivation for engagement is to reminding a simple truth; ideas have consequences. Those of us who trade in ideas have a responsibility to ensure that our idea should do no harm. In the face of the rising threat of reactionary populism in India and many other parts of the developing world, it is high time critics of reason and enlightenment asked themselves if they are fulfilling their responsibility" (2003, p. 159).

3.8. HEALTH AND ECONOMY IN POST-COLONIAL INDIA

In the above section I have discussed aspects of the cultural matrix of biomedicine. Drawing upon the available literature, I presented some of the key aspects of the cultural matrix such as dogmatic objectivity, the exclusive focus on the individual, the body and the idea that illness is an internal matter. Biomedicine does not focus on external causes of disease, social aspects of illness, nor does it allow for accounts based on misfortune, sorcery or other types of metaphysical explanations. Viewed as a whole, the history of health and medicine in India could be characterized as a system in which Indian people have been subjected to various forms of exploitation and abuse. It started with colonial and tropical medicine under the British who developed a healthcare system that only catered to British soldiers, administrators, clergy and the like, while ignoring the health of Indian people. After independence, lip service was paid to "health for all", but ultimately India opted for a private-based curative system, and a public preventative system. The latter tended to be dominated by international funders who put money

toward Neo-Malthusian population control measures or supported large horizontal vaccine programs. In the contemporary period, inequality is being promoted under the euphemism of "Global Health", a growing academic industry that promotes high-tech, for-profit health and medicine in non-Western contexts. Global Health projects range from vaccines, pharmaceutical development, clinical trials, and most prominently, utilizing the human genome. But not all people and organizations in India are convinced that good health can best be realized through these means and insist instead for a renewal of the Alma Ata Declaration, *Health for All*, a slogan that calls for the fulfilment of the social and economic dimensions of health such as acceptable and nutritious foods, decent shelter for all, and the means to get these, such as land, a job or state entitlements.

The colonial and post-colonial economic context made ideal conditions for poor health and compromised the sense of wellness among *Dalitbahujans*. In the next section, I argue that post-colonial health policy, nowadays referred to as "global health" has remained consistent with the principles of colonial tropical and international health, both of which neglected the toxic economic and social context, instead implementing a number of pseudo-solutions that served imperial market-based interests (see King, 2002; Rajan, 2017).

3.9. TOXIC CONTEXT OF HEALTH FOR *DALITBAHUJANS*

In conceptualizing the impact of British colonialism in India, Bagchi, one of India's foremost historians, posits that it was akin to two centuries of IMF-style structural adjustment policy (2010), this has been suggested by other scholars as well (see Choussudovsky, 2003; Joshi, 2007, p. 155; Qadeer, 2011, p. 381). But pro-imperialist

historians obscure this by portraying British rule as an unmixed blessing claiming that it was the British who introduced laws and civilization to India (Bagchi, 2010, xv; Joshi, 2007; Kumar, 2010, p. 566; Witsoe, 2011, p. 74-85). Pre-British India did, of course, have laws, for example heritability and transferability of land were legally protected whereas both the British made such property insecure for non-European people (Bagchi, 2010, p. xviii; Khaldun, 2007). They simultaneously created myths to sustain the ideology of continued occupation such as the idea that there was no private property in India prior to the British rule (Bagchi, 2010, p. xx; Saklani, 2010, p. 225). British administrators professed the virtues of "property" rights vested in the individual but regularly violated these tenants by professing Zamindari system (a type of landlord system) in Bengal presidency under Cornwallis Governor as result, he collected taxes from the tenants through the permanent settlement act of landlords (Bagchi, 2010, p. xxxiii; Behera & Basar, 2010, p. 265; Choussudovsky, 2003, p. 250; Joshi, 2007, p. 153; Qadeer, 2011, p. 52; Witsoe, 2011, p. 78-80). Displacement was always done in the name of "development" in the colonial era (Padel & Das, 2010, p. 62; Srivastava, 2004, p. 476) through a number of acts such as the 1793 Permanent Settlement Act which spread into the other EIC governing presidencies Madras presidency states, Bombay province and North- West Frontier Provinces (present-day UP, Gujarath, Pakisthan and Punjab territories); initially introduced by Charles Cornwallis and who also expanded the East India Company (EIC) profits -it is also called Fort Williams of Bengal, especially in Bihar, Assam Orissa and Bengal territories, and then reaffirmed through the 1894 Land Acquisition Act (Jena, 2008, p. 264; Padel & Das, 2010, p. 65; Witsoe, 2011). Moreover, if there was no documentation to prove "ownership", the British would usurp the land in

question (Bagchi, 2010, p. xx) especially where collective ownership was the norm among some *Dalitbahujan* peoples (Saklani, 2010, p. 224-26).

British rule in India was despotic (Joshi, 2007, p. 143) and the British tried to influence public opinion by appointing members of the “public”, indigenous elites and upper caste Hindus, who were friendly to commerce and private landownership (Bagchi, 2010, p. 258). Economic policies went hand in hand with knowledge regulation. There was a strong concern with collecting statistical information on local customs with particular interest in land tenure, marriage practices, caste, kinship, and a “whole array of social facts” which were codified into single set of essential practices then evaluated as the norm of the emergent colonial “social body” (Bagchi, 2010, p. xx-xxi; Dirks, 1997, p. 203; Ramanna, 2012) in India and other British colonies (e.g., Heaton, 2013).

During colonial rule, the British did everything possible to strengthen the landowners’ rights and maintained the Masters and Servants Acts long after these been “given a quietus” in Britain (Bagchi, 2010, p. xix; Qadeer, 2011, p. 52-3). In the mid 1870s, the three major quasi-state banks in the Madras Presidency, Bombay Presidency and the Bengal Presidency were merged into one state bank that controlled all the revenues in India but whose primary function was that of commerce (Bagchi, 2010, p. 136; Malsawmdawngliana & Lalrozami, 2010, p. 386). During the years 1870-1920, wages fell, food prices increased, the British converted many subsistence crops into cash crops such as cotton, jute and tea and the majority of taxes were used to continue British rule in India. Individual forms of ownership were encouraged and infrastructure that was useful for military or commercial purposes with little going back to the people who produced the wealth (Bagchi, 2010, p. xxix; Panda & Priyadarshini, 2010, p. 401). The

Indian army was financed by the Indian people as it defended the interests of the British Empire in Asia and beyond (Bagchi, 2010, p. xxxi; Joshi, 2007, p. 161-2). Tribal groups were displaced from forest lands through this method so that in Orissa for example, hundreds of communities actually ceased to exist (Khaldun, 2007, p.11; Padel & Das, 2010, p. 67). Tribal peoples inhabiting the forests were pushed deeper into the hills and mountains where they practiced shifting cultivation (Mili et al., 2010, p. 134; Mohapatra, 2010, p. 208) a method known to have less impact on the land.

Another among many instances involves the Punjab and Northwest, where the imperial administrators dreamed-up a village community where none had previously existed and made it responsible to collect land taxes (Bagchi, 2010, p. xxxii). People who were not used to their lives being built around the circulation of capital were forced to abandon their non-monetary practices and enter into market relations (Saklani, 2010, p. 223). De-industrialization of weaving had a deleterious effect on women who previously enjoyed economic and social empowerment as spinners.

Famine was the norm (Bagchi, 2010, p. iii) which the British dismissed as “seasons of scarcity” (Bagchi, 2010, p. xxxix) or as “so-called natural disasters…” (Qadeer, 2011, p. 37), yet these explanations defy the propensity for famines in the hundred years of despotic British rule after the 1857 The Rebellion (Joshi, 2007, p. 143). From 1894 -1947 for example, exportable crops proliferated, and food insecurity ensued and in 1943-4, there was a famine throughout India (Degaonkar, 2006, p. 395). Some ST groups who had long resisted the British military and economic attacks (Panda & Priyadarshini, 2004), for example, had no choice but to beg for food from their staunchest enemy, the British (Malsawmdawngliana & Lalrozami, 2010). Some tribes were made to

work for the food given; building the bungalows, military and trade headquarters for the British who used the famine as an opportunity to further consolidate their political apparatus among affected territories (Malsawmdawngliana & Lalrozami, 2010, p. 390).

The British had an obsession with tigers and killing them in their colonial hunting activities was a preoccupation (Bagchi, 2010). They symbolically staged defeat of Indian rulers (Sramek, 2006, p. 661) with a view that "only by successfully vanquishing tigers would Britons prove their manliness and their fitness to rule over Indians" (Sramek, 2006, p. 599) and Colonial officials equated 'recalcitrant wild animals' to 'disobedient human beings' (Sramek, 2006, p. 662).

Labor amounting to tens of thousands was extracted from Tamil Nadu to work in rubber plantations in Malaysia the result of large scale malaria, hookworm and other preventable infections (Birn et al., 2009, p. 28; Khaldun, 2007, p. 23; Packard, 2016). During this century, most of India experienced a zero population increase (Saklani, 2010, p. 225) and in South India, there was actually a decline in population (Bagchi, 2010, p. xxxix) due to the processes associated with displacement from their lands which basically meant inability to secure food, shelter and the means of livelihood (Joshi, 2007; Saklani, 2010, p. 236-7). Displacement is accompanied with severe health outcomes (Whiteford& Tobin, 2004, p. 194) and history has shown that liberalizing local food markets in a context of unequal competition is a recipe for destruction of livelihood (Degaonkar, 2006, p. 395). The British themselves recognized the brutal exploitation perpetrated, as summed up by one administrator:

> "…ruin, ruin, poverty…as though a leper had touched the land, it were hastening to decay…No one who has eyes and ears to use, can doubt for a moment that we

have almost totally neglected the resources of such a mighty country, while we have introduced the trash of our manufacturing towns into every cranny of the land" (Khaldun, 2007, p. 23).

Indian people responded through organizing themselves as well as through politicized knowledge forms such as literature and folk art (Joshi, 2007).Literature during the period of colonial rule saw great anti-colonial figures such as Rabindranath Tagore who sought to decolonize Indians (Bagchi, 2010, p. xxii) and who at age 17 openly wrote in admiration of the heroes of the Rebellion of 1857 (Haldar, 2007, p. 290). At the same time, folk songs and other forms of public discourse were equally political in orientation (Haldar, 2007; Husain, 2007). Prior to the Indian Rebellion of 1857, political folk songs were banned by the British and many people risked grave penalties by performing them, singing them, expressing them as it was a sign of the brewing rebellion (Joshi, 2007, p. 293). Knowledge regulation, and the suppression of various forms of expression, was a common method used to re-shape how people experienced health and wellness through embodiment.

3.10. REGULATED KNOWLEDGE AND COLONIAL CONCEPTIONS OF PUBLIC SPACE, THE BODY AND ILLNESS ETIOLOGY

There was a crowd of about 5,000 persons. Two hooks were passed through the muscles below the shoulder blades of 'Kallan'This was not done in public, but it is believed that the muscles were first kneaded and pounded to induce insensibility and prevent hemorrhage. The man himself says there was no pain. He was swung to a height of twenty feet by the hooks to a pole fixed in the centre of a car which was then dragged round the town. He was hung for an hour and a quarter. He was then lowered and given some arrack but says he had none previously. His voice was then full and his pulse strong. There was little or, no bleeding. The hooks were large enough to admit the little finger" (Dirks, 1997, p. 187)

The above account was written by a British officer in the late 1800s in Tamil Nadu. Hookswinging is a Hindu devotional practice designed to show divine love and it is considered an honor to participate in it. But the British conceptualized the body, bodily substances and also notions of the sacred and the public domain in ways that did not match diverse Indian notions (Tanner, 2012, p. 225; Trawick, 1992). Assertion of identity the public domain and its governance was a preoccupation of the British (Dirks, 1997, p. 184; Fanon 2005; Haldar, 2007, p. 279; Joshi, 2007; Khaldun, 2007; Nandy, 2009). The British missionaries were particularly horrified by hookswinging and the "...penetration of human flesh by the insertion of iron hooks, the repetition of the civilizational horror of the hammering of nails into Christ's hands and feet, and the affixing of Christ's body to the cross. These are the sorts of stories that were used to collect funds for missionary endeavors to combat heathenism, generating as they did collective gasps, sympathy, and contributions in church halls and cathedrals across Great Britain" (e.g., Dirks, 1997, p. 190; Witsoe, 2011, p. 73-82). It was not just the pressure from missionaries that led the purportedly "noninterventionist" British colonial government from banning hook swinging, but much more significantly, an attempt to break any form of collective organization or national consciousness that might be symbolized in expressions in the public domain and the sense that colonial rule was being challenged (Dirks, 1997, p. 203; Haldar, 2007, p. 283). As the rites seemed to involve pain, the British were even more uncomfortable with the fact of hookswinging and its link to a public expression of devotion to Hindu religion, as opposed to for profit or pleasure which would not have been so egregious (Dirks, 1997, p. 189).

Hookswinging was one among numerous episodes of the British altering or creating new customs using the force of law as we have seen. From the point of view of the British, the Hindus were nothing better than "nasty heathen wretches" (Joshi, 2007, p. 143) with unfathomable traditions (Qadeer, 2011, p. 152) and they trampled Indian customs under foot seeking to convert them to Christianity (Joshi, 2007, p. 165). Potential health risks were invoked as a justification for the banning, yet the moralized horror obscured the forms of colonial violence that they themselves had created and maintained through their colonial policies (Dirks, 1997, p. 211; Qadeer & Visvanathan, 2004, p. 155).There were many such discourses that concealed the forms of hegemonic power exercised by the imperial British state in other arenas of social life (Bennett, 2007, p. 50) and in other locations such as the Southern United States as the statement from the Governor of South Carolina reveals,

> "But again, it as other times pleased Almighty God to send unusual sickness amongst (the Indians), as the Smallpox…to lessen their numbers so that the English in comparison to the Spaniard, but little Indian Blood to Answer for" (John Archdale, Governor of South Carolina, quoted by Kelton, 2007, p. 47).

The governors' comment, while not about India per se, characterizes the ways that the British tried to conceal the violence that lay behind their policies and practices in the former colonies (see Dirks, 1997). As Kelton points out, the British tried to convince the world that it was 'the hand of god' that destroyed colonial populations, whereas the Spanish had used overt physical violence. Yet the governor conveniently concealed fact that the British practice of buying indigenous people as slaves played definitive role on

modifying the social landscape so as to create ideal conditions for the proliferation of smallpox along the slave trade route (2007, p. 47).

The example aptly shows the imperial rule in creating a toxic context in the colonies. What the British did in the Southern US, however, was a much lower scale than what took place in India was the vital colony for enriching Britain. The wealth drained from India was used to industrialize Britain and to entrench colonialism in Canada, Australia and New Zealand, with very little reverting back to India for its own development (Bagchi, 2010; Joshi, 2007). The Duke of Wellington indicated that to annex an Indian territory was to "…degrade and beggar the natives, making the small enemies" (Khaldun, 2007, p. 22) when the British wanted to increase their profits from the textile industry they not only banned Indian calicos in Britain (Bagchi, 2010; Khaldun, 2007, p. 7) but also imposed a tax on textiles in India so as to eliminate competition (Qadeer, 2011, p. 52). British banned the folksongs when people fell back onto their folk songs to keep the strong at a time of increasing poverty and repression from British rule (Joshi, 2007, p. 293). But most poets and writers did not stop writing and "…even during the darkest days of political oppression and they sang in the voice of Brij Mohan Chakbasti[i], 'Let them seal my lips and let them put me into prison, but they cannot put fetters on my ideas' (Hussain, 2007, p. 264).

Notions of "the sacred" was legislated by the British in promoting the Brahmanical social and religious customs including the preference of Vedic texts in Sanskrit language over Dravidian ones (Joshi, 2007). Practices like hook- swinging and widow remarriage were associated with lower castes and with an assertion of their non-Sanskriticized conception of public space. This also offended both the British and their

Sanskrit Brahmanical tendencies (Dirks, 1997, p. 200).The British ideal of patriarchy and patrilineal descent was another kind of regulated knowledge used to undermine women's pre-colonial rights such as divorce, widow remarriage and the practice of polyandry (Bagchi, 2010, p. xx) and to dissolve matrilineal descent and to challenge and reify the fluid categories such as those broadly related to caste, religion and gender (Bagchi, 2010; Khaldun, 2007, p. 299;).

The Hindu kings and Muslim sultans who ruled under the British had a degree of autonomy in relation to the colonial government (Haldar, 2007) and this was the concept of "indirect rule" (Choussudovsky, 2003, p.149). The British claimed that they would not interfere with religious expression after the Great Rebellion of 1857, but this was only lip service (Dirks, 1997, p. 189). Colonial morality and horror of certain practices were repeatedly deployed to obscure the very violence, most of it unreported (Dirks, 1997) that was imposed upon Indian people. The violence of so called "indirect rule" created an environment that was not amenable to fostering good health (Qadeer, 2011, p. 81) and continued unabated into the post-colonial period. The refusal to "...see things as they really are..." (Scheper-Hughes, 1993, p. 210) a failure to see that good health requires food shelter and the means to get these is a hallmark in Indian history (Qadeer, 2011).

The risk of vaccine development was borne by the Indian *Dalitbahujan*s who were vaccinated by the millions during a time when British people were skeptical and nervous about vaccinations in Britain where there was a growing recognition of the salience of preventative measures such as good nutrition, careful sanitation and public infrastructure, but this initiative was neglected by British colonials in India (Bennett, 2007, p. 213; Qadeer, 2011, p. 151). Translations of the benefits of vaccinations in local

languages were used to speed-up the process of vaccinations in India (Bennett, 2007, p. 207-08) such as F.W Ellis' Tamil version of "The Legend of Cowpox" entitled *Aramavara Vilaccam* which was interpreted by officials as the reason behind the increase of 111,175 vaccinations in Madras by 1804 (Bennett, 2007, p. 209).

Unless deemed useful to their civilizing mission, the British empire developed health interventions that tended to ignore social and economic conditions and dismissed Indian concepts of health and medicine (Bennett, 2007, p. 214-5). Top of the line health care facilities were developed for imperial army battalions and military installations throughout India which reduced death rates for military personnel by 80% while at the same time there was a recorded 25% decline in the general population (Qadeer, 2011, p. 52). They depicted tropical climate and native culture as the main reasons for ill health rather than economic and social causes (Qadeer, 2011, p. 53; Saklani, 2010, p. 236). India was viewed by European scientists as an essential lab for global scientific enterprises and technological experimentation (Bennett, 2007, p. 214-15; Birn et al., 2009, p. 41; Qadeer, 2011, p. 395).

3.11. Structural Adjustment and the consistent denial of health and wellness

Critical scholars have argued that power was transferred from the British to Indian elites after independence in the 1950s (Bagchi, 2010; Qadeer, 2011). While many called for equality, as had been realized in other post-colonial contexts, in India, the power relations were maintained (Arnold, 1993, 2016; Choussudovsky, 2003, p.149; ; Hardiman & Mukharji, 2013). The IMF's implementation of "shock treatment" in 1991, (Choussudovsky, 2003, p. 154; Rao, 2009, p. 263) and key policy documents were

drafted on US soil (Banerji, 2003, p. 163; Choussudovsky, 2003, p. 157; Qadeer 2011, p. 385) with the aim of enforcing fiscal collapse and states' dependency on Washington lenders (Choussudovsky, 2003, p. 155). The result was that livelihoods of millions of people were compromised leading to chronic starvation and destitution (Choussudovsky, 2003, p. 149; Qadeer, 2011, p. 35; Mukherji, 2012; Munshi, 2012; Nandini, 2016; Nielsen & Oskarsson, 2016).

Famine and starvation deaths in India have paralleled the intensification of imperialism after 1857 and then again in the last decade (Malsawmdawngliana & Lalrozami, 2010, p. 389; Nielsen & Oskarsson, 2016; Rupavath, 2015; see Shahmanesh, 2007, p. 317). Although the state had been concerned with providing food security, increase of exports has always tended to have a negative effect on the poor, who in India are the *Dalitbahujans* (Degaonkar, 2006, p. 391; see Behera & Basar, 2010). *Dalitbahujan* peoples tend not to be consulted in developing policy and yet they are immediately affected by "developments" (Bala, 2012; Bhat, 2001, p. 4706; Clarke et al., 2003; Hardiman & Mukharji, 2013; Jena, 2008, p. 18; Qadeer, 2011, p. 73-4 and 134; Rao, 1998, p. 481). Mass migrations to places lacking basic infrastructure (Kumar et al., 2011) are also common, living among the ruins of industry where stagnant water in abandoned pits becomes a breeding ground for the anopheles mosquito (Behera & Basar, 2010). These overcrowded areas are also an ideal location for tuberculosis to thrive, a situation that has been described as a "catastrophe" (Yalamala, 2013; Shahmanesh, 2007, p. 319; see also Packard, 2016).

The majority of (80%) Primary Health Centers (PHCs) specializing in curative services lack medical equipment, adequate medical personnel, and abortion theatres and

with the antenatal checkups (Qadeer, 2011). The absence of public health services (Bloom, Henson, & Peters, 2014; Brijnath, 2014; MacLean et al., 2014) is, as already noted, directly linked to the 1990s structural adjustment policies (Shahmanesh 2007, p. 328; Varma & Kusuma, 2008, p. 395). For most *Dalitbahujan* peoples, it is very difficult to get to the clinics as the cost of travel is prohibitive not to mention accommodation and the health care costs themselves (Rao, 1998, p. 482).

Environmental factors such as humane working and living conditions, guaranteed access to nutritious foods[ii], and clean drinking water are known to be the most basic ingredients of good health (Castro & Singer, 2004; Coburn, 2009; Kelton, 2007; Leys, 2009; Navarro, 2007; Qadeer, 2011, p. 37; Scheper-Hughes, 1993, p. 210) that inequalities contribute to a lack of social solidarity and increase in social pathology has been well documented (Coburn, 2009, p. 40; Navarro, 2007, p. 21; Priya et al., 2009, p. 344). These all reduce healthcare to a commodity leads to contributes to poor health is also well established (Armada & Muntaner, 2004, p.31; Ulrich-Deppe, 2009). Beyond these elements, a sense of wellness and good health are realized when the food itself is culturally acceptable, when the working conditions are decent, when the home base is acceptable to the people inhabiting it. Feeling wellness is also realized through embodiment and the sense that it is acceptable to express one's identity, something that was often curbed in and stigmatized as inferior during the colonial period as noted above.

3.12. PROBLEM OF SPECIAL ECONOMIC ZONES (SEZ)

The period between 1964 and 1985 was the initial planning phase of Special Econmic Zones (SEZs) developments and between 1985 and 1991 the government of India established five zones. In many cases, there is a significant delay in between the

companies acquiring the land and actually establishing industries on it and people are left with no means of livelihood (Cross, 2010). These same people are often unaware that they had permanently signed away the rights to grow crops on the land and, in a growing number of cases; the companies that purchase the land at cheap rates put the same land up for sale at exorbitant prices. Social scientists are often employed to study the dynamics involved in SEZs and, specifically, to study strategies aimed at minimizing the anger of people who sell their land and subsequently realize they have been cheated, some of whom seek out involvement in social movements for change such as the Maoist or Naxalite movements (Ilaiah, 1989; Ilaiah, 2004, p. 238; Mukherjee, 2007). Mukherjee, former Superintendent of Police, and involved in the arrests of key Naxalite leaders such as Charu Mazumdar[iii] himself, devoted an entire paper in his book to the need for the military to understand the Naxalites, and in order to do this, ethnographic work is indispensable (Mukherjee, 2007)

A feeling of "well-being" is indeed very elusive among people whose lands and livelihoods are being usurped and decimated. The perception that one is located at the bottom of the social hierarchy is demoralizing and alienating (Khaldun, 2007; Padel & Das, 2010, p. 90). Defining caste simply as a closed (endogamous) status group of people who are believed to hold common characteristics (either real or putative), access to which is strictly limited by the same group…one becomes a member of a caste group by birth" (2011, p. 46). Robert Delige also notes that caste is based upon the pollution/purity dualism and stress is paid to avoiding intimate inter-caste exposure such as sexual intercourse or higher caste people eating foods prepared by lower castes (2011, p. 50; Valk, 2010). Genetic heritage is also implicated in caste, as introduced by the British

fascination with racial typologies was carried over to perceptions about blood purity to justify denying rights to the darker skinned *Dalitbahujan* people by the lighter skinned Brahmins and higher caste groups (Delige, 2011, p. 48; see Farmer, 1996, p. 275; Witsoe, 2011). Other than through physical appearance, caste can also easily be identified through specific surnames.

For some, well-being is therefore expressed through resistance and yet those who resist the corporate takeover of forest and agricultural lands are very often labelled as terrorists (Report of the People's Tribunal on Nandigram 26-28th May, 2007). In a tragic pattern, among the earliest studies were those of criminality and the labelling of so-called criminal castes and tribes during the colonial period when the British were usurping people's lands and those who fought against this were labelled as criminals (Dirks, 1997, p. 205; Saklani, 2010, p. 223). There is typically wide resistance to the land usurpation and yet usurpation seems to be an accepted part of "development" in the post-colonial era (Padel & Das, 2010, p. 70-1; Saklani, 2010, p. 222). Yet the swelling of social movements intent on creating a more just society in India (Dogra, 1990; Mukherjee, 2012; Peoples Tribunal on Nandigram, 2007) and abroad is a direct outcome of mass rejection of the IMF, WB bottom-line approach and those, like the World Health Organization, who are accommodated in these approaches (Navarro, 2007; Qadeer, 2011, p. 424; Scheper-Hughes, 1993, p. 220). *Dalitbahujan*s are essentially the most disadvantaged peoples (Ilaiah, 2004, 2009; Walling, 2010, p. 367-8) and when they resist some of the corporate "developments" on their lands, they are labelled as Maoists, Naxalites, terrorists and yet in reality they are only concerned with the loss of their land, livelihood and sense of wellness (Dogra, 1990; Padel & Das, 2010, p. 78; Saklani, 2010,

p. 223). Some people have also stopped resisting and resigned to the sense that they will not survive the machinations of “development” which is called rape by some (Padel & Das, 2010, p. 87; Saklani, 2010, p. 222).

When the land is usurped by industry, livelihoods, and sometimes lives are lost, and India’s enormous biodiversity is also compromised (Das, 2010, p. 164; Dash & Behera, 2010, p. 421; Mili, Mihin, Samal, & Singh, 2010, p. 149; Nath, 2004, p. 302). Taken together, the knowledge of this biodiversity and its medicinal uses are gradually forgotten when people get displaced and lose access to their healing plants. Thus, while being denied a decent social environment, there has been a simultaneous denial of access to curative healthcare services over the past two centuries and with little progress made in spite of a lot of hope (Balarajan, Selvaraj, & Subramanian, 2011; Mash, Almeida, Wong, Kumar, & von Pressentin, 2015; Purohit, 2017; Reddy, Reddy & Reddy, 2007).The recent entry of India into the G20, and the numerous economic deals that have been signed with the world’s advanced capitalist countries has brought more misery to India’s *Dalitbahujans* and some wonder (Qadeer & Visvanathan, 2004, p. 147; Rao, 1998) how these people can withstand any more post-colonial exploitation.

3.13. CONCLUSIONS

For more than two centuries, *Dalitbahujans* have been exposed to the violence of economic policies and knowledge regulation. How can anyone realize the good health in this kind of toxic environment? In Chapter Four, using the extended case method, I explore how *Dalitbahujan* peoples, living far from public health facilities experience and their local health care system and its practitioners.

CHAPTER 4 DOCTORS WITH ANGRY FACES: HEALTHCARE SERVICES AMONG A PARTICULARLY VULNERABLE TRIBAL GROUP IN SOUTH INDIA

"It took us five days to get to the clinic and when we arrived all were looking at us with angry faces" (Sharmila Aged 53).

In the previous chapter, I explored the biomatrix of biomedicine and then postulated that the combination of past and modern forms of colonialism, capitalism and biomedicine created and sustained a toxic context for these peoples. Across India, *Dalitbahujans* live in a context that denies the social and economic determinants of health and also the health infrastructure to deal with illness. Unlike other post-colonial nations such as Cuba, Mozambique, Guatameula to name a few, India did not develop a strong preventative or curative public healthcare system. I provide an extended case study of the rural context for *Dalitbahujans* in Andhra Pradesh paying particular attention to the narratives of peoples' experiences with healthcare practitioners and propose some recommendations. One of the chief findings was that medical personnel, whether in the public or private health system, were characterized as hostile, angry, insensitive and rude toward patients seeking care. While India has made progress in trying to improve the overall delivery of rural healthcare services, there is an urgency to develop services that are also culturally and socially sensitive.

The two staple crops sown throughout rural Andhra Pradesh are rice and sorghum species. Some families also produce subsistence crops such as millets, pulses, groundnuts, cashews, *chilli* (pepper), and turmeric if rainfall is sufficient. They use the wooden plough for tilling the soil with the help of bulls or cows. As these crops do not produce enough to

sustain the hamlet through the year, people migrate to distant towns and cities for wage work as the crops do not provide enough subsistence. Debt and poverty are a perennial issue among most *Dalitbahujan* communities in AP (Maroju, 2007, p. 37) and begging for intervention (Jothi et al., 2014). Many have lost their lands over the past two decades due to money lenders who take land when people are unable to repay debts, something that has been characterized in stunning detail in recent literature (Reddy, 2014). Throughout the region, the suicide rate is high due to debt (Cook, Bhatta, & Dinker, 2013; Nielsen & Oskarsson, 2016; Shah, 2013) a phenomenon generally on the rise due to liberalization of the economy (Chatterjee, 2009). Some scholars have insisted on the need for urgent intervention (Joshi et al., 2014).

Food security is thus a dominant issue, as *Dalitbahujans* commonly don't earn enough to purchase a varied and nutritional diet (Deliège, 1988; Horden & Hsu, 2013; Kudlu & Stone, 2013), may have given subsistence crops for cash cropping that required heavy investments that may be unsustainable. When possible, many will consume wild or semi wild plants, plants that "…are not deliberately cultivated but whose occurrence and form are influenced by human action" (Etkin, 2006; Harris & Hsu, 2012; Price, 2006), however, they are very seldom able to procure wild foods and often must rely on market agricultural produce purchased through wage labor contributing to compromised immunity as has been evidenced in other communities impacted by the legacy of British colonialism and ongoing neoliberalism (Daschuk, 2013; Kelton, 2007). An additional problem fostering ill health is in regard to housing. Many *Dalitbahujans* who were promised homes by the state but were still waiting several years for them. Many continued to live in

temporary dwellings that were cold and wet in winter and hot in summer due to the insects and heat.

A woman in her fifties from Visakhapatnam region added that: *We all get the same diseases nowadays, babies and old people, those who cannot perform the duties that they used to, we all get headaches and colds constantly. As we all eat the chemical foods and the chemically contaminated food that smells so terrible, you can smell it, it is like human waste*. Here again is a comment reflecting on the low quality of the food, as well as the sense that sickness is perennial because of the low quality.

4.1. PUBLIC HEALTH FACILITIES: REALITY AND PERCEPTION

Primary Health Centers (PHC) are often a long distance from villages; anywhere from five to thirty kilometers. The PHCs were supposed to be the platform to provide an holistic preventive and curative health services to the tribal populations while addressing the preventive and promotional aspects of health care. Under the Minimum Needs Programme (MNP), the State Government was designated a responsibility for the allotment and maintenance of PHCs. The PHC is supposed to have a Medical Officer and paramedical staff acting as a referral unit for the Sub-Centers and larger Community Health Centers (CHC) and/or for the expansive District Hospitals in the towns, the latter can be as far as 200km away or more. But PHCs serving *Dalitbahujan* populations often have very few beds and suffer from the constant problem of lack of staff and supplies. Lack of a sufficient budget (Garg, Singh, & Grover, 2012; Mullings, 2005, p. 667) is also an issue as noted in the previous chapter.

The CHC is a larger facility but is also often a long distance away from villages and very difficult to reach especially when ill. They are supposed to have four medical specialists namely Surgeon, Physician, Gynecologist and Pediatrician along with other paramedical staff and allied health workers. In addition, these facilities should have 30 in-door beds with one X-ray, Laboratory and maternal clinical facilities (Gutschow, 2016). In theory, it should follow-up on consultations from the PHCs and provide obstetric care and specialist consultations. Yet the many times I visited the CHC's I noted there was often only one General Practitioner available when there should have been a gynecologist and a surgeon on staff as well. Of the few beds available, only about half are in usable condition and all the beds were continually full with many more patients waiting outside the CHC, sometimes for days and weeks sleeping in the open air wherever they could find a place, either waiting for care, or staying there to visit their ill relative and take them back home when they were released (see, for instance Chauhan et al., 2015). On some occasions all that was available was the services of the dispensary. Needless to say this is very difficult for ill people and their relatives to endure and led to more sickness for those who were forced to wait outside.

An ongoing problem throughout India (Lakshminarayanan, 2011; Singh & Badaya, 2014) is that most of the rural *Dalitbahujans*, find it very difficult to travel to these facilities due to lack of buses and the high expense of hiring auto (private taxi service). A major focus involves family planning and vaccines which are administered by the Auxiliary Nurse Midwife (ANM) who also supervises the Anganwadi and ASHA workers and deal mainly with reproductive health education as a form of preventative primary healthcare. Interestingly, Anganwadi teachers who are often locally trained women appointed by the

state (Gupta et al., 2017; Gutschow, 2016; Vellakkal et al., 2017) constitutes the main grassroots level healthcare personnel. They are trained to assist women with antenatal care, teaches young children (many of whom whose mothers were/ are under her care), maintains a midday school feeding program for young children, provides folic acid tablets and high protein food supplements (Forum for Medical Ethics Society, 2015). The Anganwadi worker also maintains health records mainly regarding reproductive health matters (Datta, 2001; Sanneving, Trygg, Saxena, Mavalankar, & Thomsen, 2013; Singh & Badaya, 2014). It is important to note that none of these services offer medicines nor medical care and are strictly involved with Reproductive and Family Health Services. As in other parts of AP, these marginally qualified personnel play an important role in delivering healthcare (Nahar, Kannuri, Mikkilineni, Murthy, & Phillimore, 2017).

While the reproductive services are prevalent, all other forms of care are few and far between. Moreover, the level of satisfaction among patients, their families and the healthcare workers on this sector were markedly low. Concerns about a severe shortage of supplies and medical equipment necessary to service the people who require such services was a prevalent theme. This was a source of frustration for healthcare personnel and patients and their families' alike. The healthcare personnel often lamented about lack of a decent budget for the hospital.

One practitioner noted: *Our beds are usually full in winter when the fevers strike. But we don't have many supplies to treat them. Also, many patients cannot stay long because they come with their family members and the family members cannot miss so much time from work, so they end up leaving and treating with tribal methods.* The lament of *"We are lacking personnel and supplies" and 'Lack of supplies is a constant problem*

’echoed over and over again by people who used the services and those who were tasked to deliver the services as well.

People often complain that the PHC pharmacy was not properly staffed and most of the time there were no personnel there to serve the patients. If the PHC lacks a gynecologist and has no surgical facilities which mean that for serious health issues, patients must attempt to travel to District Hospital. Majority of the time, there is no vehicle built to cover the rough mountain terrain where the hamlets are located to transport patients to and from the hospital so patients must get there on their own. If there is no doctor at the District Hospital available, people must stay overnight – something very difficult while travelling with a sick patient, and even more so if one is lacking relatives or friends to stay with and on a minimal budget.

One man in his 40s noted, for example that: *My son had fallen from a tree and his leg was broken. My family hired people who we work for in another town to take him to the road point and took a bus. By the evening they reached the clinic and they were referred to the District Hospital, but we had no vehicle to take them. We had to spend about 8000 rupees on the whole trip.*

Many reported using the CHC or PHC only once a year and some noted not using the facilities at all in the past year because of the difficulties associated with getting to the facilities. People commonly reported falling back on local “folk” methods first due to the expense and other difficulties associated with travelling to the PHC or CHC. One man commented about his experience trying to help his niece: *I brought my niece to the PHC, she was in labor for a long time and bleeding but the baby would not come. They had no*

one there who could help and we had to find our own way to the District Hospital. She lost the baby and she too nearly died. Why is it like this? A nurse attending them also recollected the experience as very stressful for her: *One man came with his daughter who was having an early labor. There were complications, but we had neither gynecologist nor any vehicle to take her to the District Hospital. They had tried to treat with her with some backward methods and then ran to us for help, but we could not do much for her by that point.* While the nurse on duty somewhat empathized with the pair, she also felt that the condition of the woman was their fault, without considering the distance they lived from the District Hospital, some 200 km from their hamlet and the huge expense of money and time to get there. She did not know that the people had to borrow a large sum of money at a very high rate of interest from a local money lender nor the stress it caused them. Additionally, the nurse showed contempt for the use of local medicines and techniques, without considering that would have been the only option and that they had. The case also shows that although the reproductive health aspect of healthcare is well developed in the hamlet through the Sub-Centers, they are not equipped to deal with reproductive medical emergencies.

Some health practitioners I spoke with also failed to see transportation as a major issue, instead blaming the people. One visiting physician complained the *Dalitbahujans* they treat *are superstitious. They would rather eat leaves, dirt and herbs than take pills. They don't believe in pills. When they get injured they run to us but they are careless and drink a lot (of alcohol). Why run to us when they do such things?* A nurse echoed this by saying *If they are not drinking, then they are using some outdated medicines. Then they get worse and finally come to us for help. It is nonsense why they should be so backward.*

Again, contempt for the *Dalitbahujans* healing etiologies, and for the people themselves, is revealed as a dominant sentiment.

4.2. ILLNESS AND PERCEPTION OF CARE

As noted in Chapter three, most prevalent forms of illness among rural Dalitbahujans are fevers, colds and headaches, malnutrition and stunting (Kowal, 2015). Fever is reported as a constant issue and this may well be due to the high prevalence of malaria among *Dalitbahujans* near forests (Gangolli & Gaitonde, 2005, p. 82; Meher, 2009, 473; Rajendra, 2016; Rowland & McShane, 2011). People noted, and I affirmed through observation, to experience two or three health issues simultaneously. Many, regardless of region, emphasized the link between their poor food intake, both in terms of quality and quantity, and chronic fever, colds and headaches (Morgan, Zamora & Hindmarsh, 2007; Navarro, 2007; Stuckler & Siegel, 2011), something I will discuss in the next chapter.

When I asked rural *Dalitbahujans* from the three regions about how they dealt with illness, their comments revealed that they drew on their own local methods first and that they do value those methods. One man in his 30s from Visakhapatnam region revealed the course of action for fevers. *We make promises to our goddess. When we get heat in our body, if it stays more than a week, we feel it is serious. The Vejjodu (local health expert) will take us to the shrine of Muttiallamma (a local Hindu goddess) and chant mantras for a long time and we promise we will come back at the festival time and offer sheep or goat or chicken if the person gets cured*". A woman in her late 20s from Chittoor noted the following: *Muttilallamma festival (summer) we go and hunt for one week even though it is not permitted, we equally share it among ourselves, this also helps us during that time to prevent the fevers and headaches, so we don't need other medicines".* More than 30 of the

people I interviewed, 17 of them over the age of 40, expressed that they experienced difficulty accessing the forest plants that they rely on for an array of illnesses.

Another woman, in her 50s from Visakhapatnam region, noted what to do in case the illness does not improve: *The first thing I do for fever is to consult the Vejjodu and maybe then we will approach our Goddess. After that I will try to buy some garlic and ginger and grind it and put it on my daughter's forehead. If that doesn't work, then I will pluck some herbs and boil then and give them to drink. If that does not work, and it becomes more severe, we will consider going to the clinic, but that is very far from here and we usually don't have enough money to get there. Even if we go there, there is not much help and they are always so angry at us.*

One elderly man also from Visakhapatnam region noted that when his wife died the physicians expressed anger toward him and the family for turning to their superstitions first instead of taking her immediately to the PHC. While this reveals the lack of understanding on the part of the physicians about the poverty preventing the people from hiring a vehicle to get to the PHC, it also reveals a lack of cultural sensitivity toward *Dalitbahujan* beliefs and the fact that they operate with alternate disease etiologies than the biomedical model. The cultural matrix of biomedicine does not leave any room for misfortune or, chance – "the scientific ordering of reality does not allow for this" (Lock & Nguyen, 2010, p. 61), and yet it is a vital local etiology and how they embody illness and treatment (e.g.,Whyte & Gibbon, 2009, p. 98) that goes unacknowledged along with any understanding of the obstacles they face to access public health. On both counts, their experiences and perceptions of reality are rendered irrelevant and regarded with contempt.

There was a consensus in all three regions that people were frustrated over the health personnel being angry or hostile to them. A few comments that stand out are: *The doctors say we don't listen to them and they are always angry. They don't want us to use our own methods but what to do-how can we get to the clinics when they are so far away, and we lose so much to get there? Should we do nothing?* A woman in her early 40s from Tirupathi region who had accompanied her nephew to the district hospital and noted with a lot of emotion: *While we waited for the examination and to get the prescriptions, the doctors had angry faces at us.* Likewise, a man in his 50s from Visakhapatnam region indicated that: *The nurse got angry at my son because he told her he went to the Goddess last week when he got sick, and that he drank some herbs and did not get better. Then she told the dispensary worker and they also were hostile to us and referred us to the District Headquarter Hospital which is even farther away. I could not miss so many days from day labor and my wife can't deal with our daily work all alone. So what to do? We went back home and my son was sick for another three weeks and very weak. I don't understand why they are angry, they too worship Goddesses.*

A woman from Adilabad in her mid-fifties noted: *Our family members had malarial fevers. When we went to the doctor, he said with an angry face: "Why do you guys use outdated healing methods? Take these tablets for now and come back if the illness doesn't strike down.*

These comments reveal that the people perceive a link with the doctors through religious beliefs. These *Dalitbahujans* have adopted Hindu beliefs in a syncretism with their own metaphysics. They cannot understand why the Hindu doctors would be angry at them all the time and some preferred not to go at all due to this hostility. One man

eloquently *noted I will take my chances at home than be set aflame with anger of doctors.* A woman in her 50s from Chittoor said that *I would rather heat up through my fever and pain than feel the heat of the doctor's anger toward me.*

4.3. HEALTHCARE WORKERS ARE UNHAPPY

It is important to note that the practitioners serving in these areas who spoke with me expressed that they are generally very unsatisfied and unhappy to be there at all. In addition to being frustrated about the people availing the services, the lack of supplies and personnel, another issue has to do with the perceived low salary. Another issue is the medical personnel frequently reiterated that the lack of good accomodation and the quarters were arranged in a way that was more suitable to the standards expected by physicians educated in urban areas and more 'comfortable' than those that *Dalitbahujans* who were living in, they were considered unsuitable to want to remain in these areas for long periods of time.

Overall, the several practitioners I interviewed in the three regions revealed a deep sense of discontent and a desire to get a 'better position' somewhere else. Perceptions of low pay, and inadequate living conditions exemplify a sense of discontent among the medical professionals which may translate into low quality service delivery in a context in which physicians usually are better compensated than the general population for their services and expertise. While 'social medicine', as a sense of duty and willingness to work in harsh conditions was realized and valued in other post-colonial nations (Arnold, 2000, 2016; Banerji, 2006; Qadeer, 2011, p. 337; Rao, 2009, p. 262) it was not and is not a part of the biomedical ethos of India (Qadeer, 2011, p. 237; Rao, 2009). In short, there is no

prevalent moral code impelling practitioners to provide the much-needed care in these locales at all, let alone in a culturally sensitive manner.

4.4. VALUING THE LOCAL MORAL WORLDS AND DECOLONIZING MEDICINE

As per the current extended case study, it became clear that when biomedical health services are utilized, it was often a very unpleasant encounter for patients and healthcare personnel alike. The literature cited in Chapter Three also suggests that this is not an isolated phenomenon. Clearly, decolonizing Indian healthcare is as an important issue as in other nation states (Brown & Bell, 2008; Coburn, Torrance & Kaufert, 1995; Harding, 2011; Hollenberg & Muzzin, 2010; Jacklin & Warry, 2004; McKenna, 2012; Manitowabe& Shawande, 2013). Given this, I strongly recommend that *Dalitbahujans* beliefs should be respected and valued as an important part of India's cultural heritage (Battiste, 2008; Brown & Bell, 2008; Dash, 2006, 316; Harding, 2011; Hill, 2003; Hollenberg & Muzzin, 2010; Manitowabi & Shawande, 2013; McKenna, 2012). Cultural and emotional experiences strongly shape bodily processes, and as, Lock and Ngyuen affirm, the importance of the narrative representation of illness, relates to the ways that perceptions and experiences of health and illness are situated in "local moral worlds" (2010, p. 72). Corin, however, warns that "...culturally sensitive authors have drawn attention to the error of 'category fallacy' which consists of taking a concept developed for a particular group (that of the researcher-usually western) and allying it to members of another culture for whom it lacks coherence and where its validity has not been established (1994, 2010). In India, this would require a significant amount of education and social awareness/cultural sensitivity training to incorporate the diverse beliefs into healthcare. Some medical colleges have begun to incorporate this into their healthcare personnel

training in India, or at least pay some lip service to the idea. At the very least, efforts should be made to uproot the hostility and value judgments placed upon India's Dalitbahujans by healthcare workers and to consciously decolonize their approaches (Pramukh & Palkumar, 2006; Smith, 1999).

Efforts should certainly be made to promote medical service as a form of socially valued labor (Biehl & Petryna, 2013, p. 320-325). It could be advisable to immediately implement state and central programs to protect *Dalitbahujans* knowledge. When states and large international institutions endorse this at a larger scale, such as the decade of Aboriginal peoples declared by the United Nations between 1994-2004, the value placed on indigenous culture can expand and in other contexts, indigenous elderly have long been seen as a significant cultural resource (Weibel-Orlando, 1988) and are even more so today in places like Canada (Marsh et al., 2015; Menzies et al., 2010). The new Centers for Study of Social Inclusion and Exclusive Policies established throughout India's higher central education system represent an opportunity in this regard if the will is there. Another way to protect this knowledge would be for the state to provide better funding to Anthropology departments within these centers and empower departments, faculty and their students (many of whom are now coming from *Dalitbahujans* communities across India) to translate concepts into ideas that healthcare workers will understand.

As citizens in an India with a dynamic global economy *Dalitbahujans* access to health care is limited first and foremost because of the uneven development between private and public health care systems and because some do not feel fully comfortable within the existing system. While the "Ninth Plan" included many innovative approaches to improve health (Gangolli & Gaitonde, 2005; Hoja, 2004, p. 117), it did not end up

making a very strong impact in improving healthcare access to *Dalitbahujans*. Moreover, some claim that it did not go far enough in the first place or worse, fell right back onto the population control reproductive health agenda (Meher, 2009). Perhaps India could consider developing a *Dalitbahujan* Initiative modeled after the Aboriginal Health Initiative that was formed in Canada in 2002. While Canada's record has not been excellent in this regard (O'Neil, 1998) it isn't ill advised for healthcare workers to be familiar with, and have an appreciation for, the dominant values and associated political economic histories of the communities in which they work (Chavez et al., 2003, p. 81; Whyte & Gibbon, 2009) as is being incorporated into medical education training in many educational institutions in North America, for example (Singer & Adams, 2014). This might be one step forward at least to generate broad interest. India needs to become more serious about creating a healthcare system that is readily available, affordable, caring and acceptable. Continuing to allow high-tech selective healthcare to drive public medicine is to continue to marginalize the poor and geographically isolated (Navarro, 1976, 2007; Navarro & Shi, 2001; Rifkin & Walt, 1986).

In Maharashtra, Donegan contends that the Community-Based Monitoring of Health Services program of the National Rural Health Mission (NRHM) and its potential to construct new spaces of "community", "state" and "civil society" (2011, p. 47) and ultimately, "cultivating empowerment" and as a 'testing ground" (2011, p. 48). It is difficult, however, to conceive of '"community monitoring plus" (Donegan, 2011, p. 62) as a form of empowerment knowing how surveillance is part and parcel of health as a state apparatus rather than a provider of services (Arnold, 2000, 2016; Samuelsen & Steffen, 2004, p. 7-10; Youde, 2010; Wailoo, 2001). Moreover, while Donegan views the

movements as "left" orientated and relying on "community" funding rather than state funding and that the latter means lack of ability to determine what the funding is used for[iv], it is important to continue to insist that these communities do deserve state funding (Sharma, 2014). Finally, caution ought to be exercised when advocating 'community' responsibility for the health and welfare of poor indigenous people or health as a form of surveillance (Frew et al., 2007; King, 2002), as well as endorsing new concepts of hygiene (Dirks, 1997) rather rallying the state to provide essential resources and services (Armstrong, Armstrong & Coburn, 2001; Navarro & Shi, 2001; Panitch & Leys, 2009).

One way or the other, it is time for India to put serious consideration into better compensating health personnel who serve among *Dalitbahujans* and rendering the service as a socially valued form of labour. It was noted above that medical professionals feel that they are not being properly compensated for the work that they are delivering. It might be worth considering extra competition for working in these areas. This does not always necessarily mean better service, but it is one step towards recognizing that *Dalitbahujans* require special provisions and certainly deserve more than the situation that I have described above in this extended case study.

4.5. SUMMING UP

In Chapter Three I outlined the colonial and post colonial healthcare toward Dalitbahujans. Preventative healthcare in the form of food, shelter and entitements to them was largely absent, and this was exacerbated by the lack of adequate public healthcare facilities. In rural areas, the lack of public healthcare infrastructure means that people must travel quite far in order to access services. This extended case study has revealed that rural

Dalitbahujans in AP find the public health encounter unsatisfactory and unpleasant. One of the major reasons is that healthcare personelle are perceived to make value judgements about Dalitbahujan health practices. These moral judgements are expressed in verbal and non-verbal means. For many Dalitbahujans, healthcare personelle express contempt, anger and annoyance on their faces and these expressions of negative emotions cause uncomfortable feelings of being judged.

A number of recommendations have been suggested to improve the approach toward healthcare for rural communities such as to educate healthcare personelle to learn to value Dalitbahujan health etiologies and to be trained to be more culturally sensitive. Another suggestion was to take a closer look at Canada's health initiatives toward Indigenous peoples and consider modelling something in India after its successes. There is urgency to these undertakings with the rapid changes taking place in India at this time. What it requires is a commitment on the part of policy makers and the public to place a concrete value on this precious cultural resource and to also begin to value these peoples. In the next Chapter I focus on the other side of the coin of "health" by exploring folk, plant and plant-based techniques considered common sense by many *Dalitbahujan* peoples using the Cultural Consensus Method.

CHAPTER 5 *DALITBAHUJANS* AND SOME SELECTED PLANTS USING THE CULTURAL CONSENSUS MODELLING METHOD

As noted previously, *Dalitbahujan* communities are for the most part agricultural based. They rely on forest products, and the fruits of ancient agricultural practices and given the lack of public health facilities, and/or the lack of staff and supplies at them, rural *Dalitbahujans* turn to time-trusted methods to maintain health and cure illness. Much of this involves the use of plants. Rural *Dalitbahujans* use both wild, semi-wild and domesticated plants, and have an array of harvest festivals that mark their productive pursuits with meanings based around theodicy (Yalamala, 2016). In Chapter Four, I explored the challenges faced by rural *Dalitbahujans* when in need of biomedicine, in this chapter, I will briefly explore healing knowledge based on plants that is held by 100 healers interviewed in the three regions of United Andhra Pradesh during 2012-2014 years. Chiefly, the chapter draws on Cultural Consensus modelling as elaborated in Chapter Two with some narrative from open-ended responses. The objective of this chapter is to show that based on the data I gathered among people who self-identified as local healers in the three regions under study, the shared knowledge of plant use seems to cluster around people who are 40 and over. The younger people have somewhat different knowledge about plants. I attribute these changes to changes in people's access to land, and their lack of time to engage with plants given wage work and other factors such as SEZs, aspects that I explored in Chapters Three and Four. There were some techniques and plants that the healers didn't feel was public knowledge and and I have not included these techniques or plants in this discussion out of respect for them. Also, although I

asked about things like black magic, most healers preferred not to talk openly about this on the basis that talking about the techniques out loud could welcome in evil-hence this also I have excluded. The recognition that some forms of indigenous knowledge should not be put into the public domain is also something that has recently been underscored as salient (Bednarik, 2013).

All the healers agreed in the salience of plants for health and the need for prevention of illness by eating rejuvenating and healthy foods. There are also patterns such as the idea that artificial fertilizers and chemicals have a negative impact on health, that older people were healthier than younger ones, and the uses of certain plants such as *chinnakalabanda*-Aloe Vera (Latin *A. barbadensis Mill*); the *Usirikaya* -Indian Gooseberry; *nelausuri*-Gale of the Wind (Latin-Phyllanthusniruri) are beneficial for building and sustaining health. Having used the CCM method, I also offer a few suggestions for those who may wish to try it in the future in South India. In this chapter I use bar graphs to show the patterns from the CCM yes/no interviewsas a way to make the patterns "easily accessible" visually (Card, 2012; Burnstein, 2014; Nikolow, 2011).

5.1. Rejuvenating plants

Human beings have, as Nina Etkin (2006) pointed out co-evolved with plants (e.g., Pieroni & Price, 2006). The parts of the plants that developed as a way to ward-off herbivores, were also the parts of the plants most useful to people (Etkin, 2006). "…India contains representatives of almost every natural family on the globe…" (Rawat, 2011, p. 248) and Dalitbahujan healers have an extensive knowledge of the plants in their environments whether domesticated, wild or semi-wild. As Etkin and Ross noted, "most

of the semi wild plants medicinal plants…are extracted from village farms….plants that a farmer recognizes for one or more uses; they are deliberately overlooked during weeding to ensure their availability for existing anticipated needs (Eitkin & Ross, 1994, p. 25-6). Hsue and Harris refer to plants as 'cultural artifact' and underscore the salience of considering under which circumstances plants are gathered…prepared, exchanged, consumed, remembered, tested, cherished, evaluated, remembered. Indeed, "In doing things with them, people give pants cultural form" (Hsu & Harris, 2010, p. 2) and plants can be "…stand alone items of reciprocity and communal consumption that mediate both mundane and ritual occasions" (Etkin, 2006) or used mainly for their phytochemical efficacy and diversity (Etkin, 2006, p. 135). Among Dalitbahujan rural communities' plants continue to constitute the first-choice preventative and treatment method and many plants are selected for their ability to rejuvenate health.

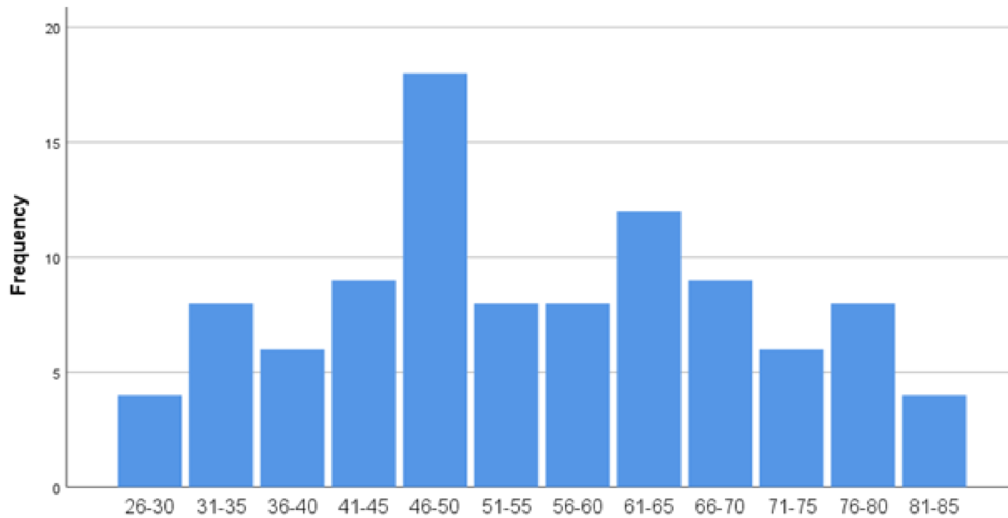
5.2. Relative age of the respondents

As noted, I interviewed respondents in three regions of AP and for this particular method, I targeted people who identified themselves as, and were recognized as healers between the ages of 26 to early 80s. In some cases, people aged 50 and beyond in many cases didn't know their exact age and as there is still a lot of relative age reckoning in rural Andhra Pradesh.

As one healer noted *let's assume that I have passed 70 years. I don't know; nobody has told me about it*. In these cases, they estimated their age based general statements and sometimes on historical events in Andhra and I was able to correlate this information to create the age. In fact, it is common that when the birthdate is unknown,

June 1 is selected by the state with an estimate of the year, as I have noted from my observations and experiences among Dalitbahujan communities in Andhra Pradesh.

FIGURE 3 RELATIVE AGE OF RESPONDENTS

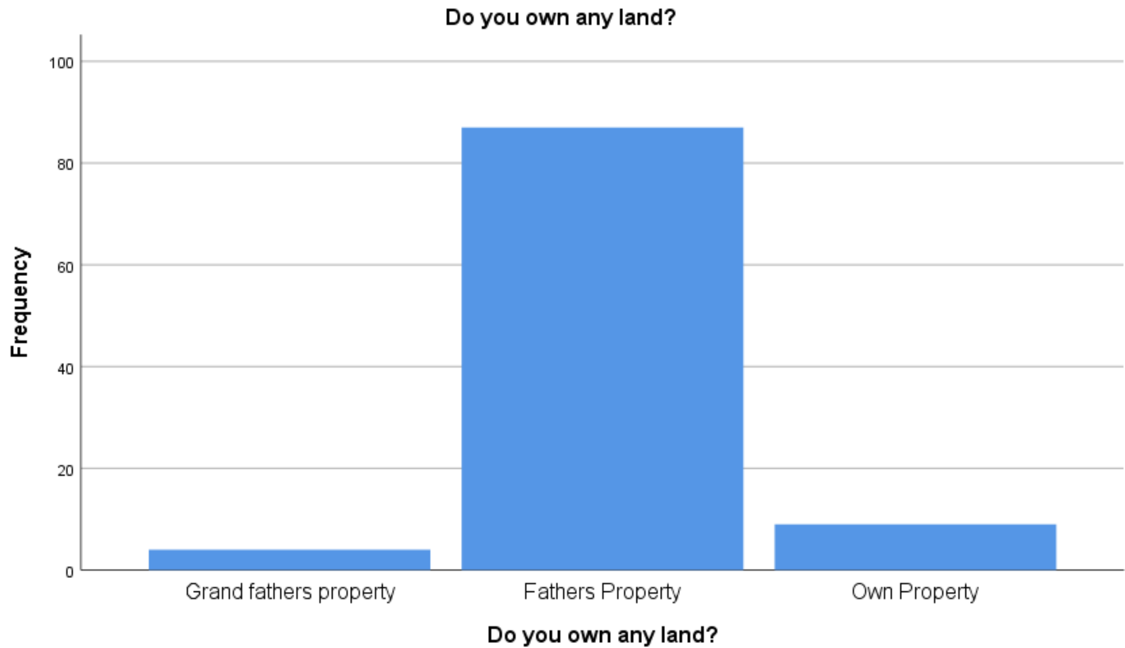


Most of the respondents were "middle aged" and "elderly" reflecting the fact that people who are trusted to heal are generally those who are considered older as is also the case in some other "Asian" systems of medicine (Farquhar & Zhang, 2005; Hsu, 2001; Leslie & Young, 1992; Zhan, 2009). It could, of course, reflect the enormous economic and social changes that have taken place over the past several decades and the loss of indigenous knowledge as has happened with other colonized peoples (King, 2002; Smith, 2012).

5.3. LAND ACCESS, GATHERING AND PLANT USES

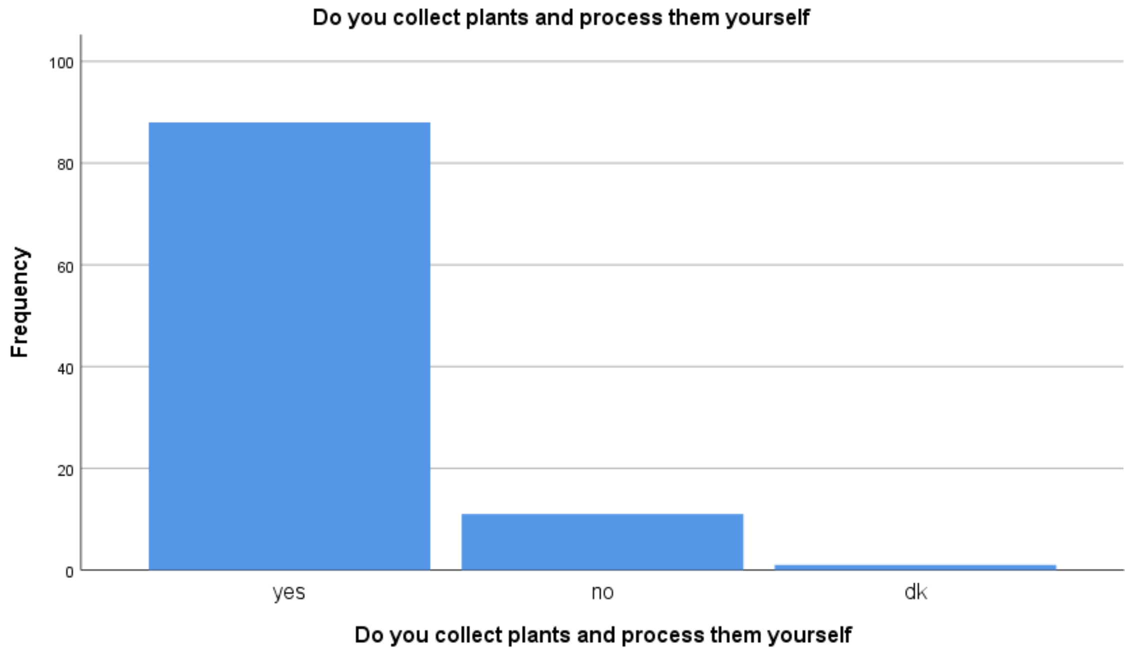
Most of the respondents owned their own land or had access to their father's land as noted in Fignure Four. In some regions, the state had also provided some land as a way to assimilate them into an agrarian economy, rather than gathering or hunting.

FIGURE 4 LAND OWNERSHIP



Most of the healers reported that they gathered their own plants. Also, most people emphasized the important of being able to identify the proper plant and this knowledge was fading away. While I didn't have a question in my CCM schedule as to whether they gathered with children, grandchildren or relatives, I did incorporate a question about whether they gathered with younger people such as grandchildren, or children, the overwhelming response was "sometimes" (Geissler & Prince, 2012). Moreover the majority of people identified that individual to be a male child (Harris & Hsu, 2012).

FIGURE 5 COLLECTION OF PLANTS

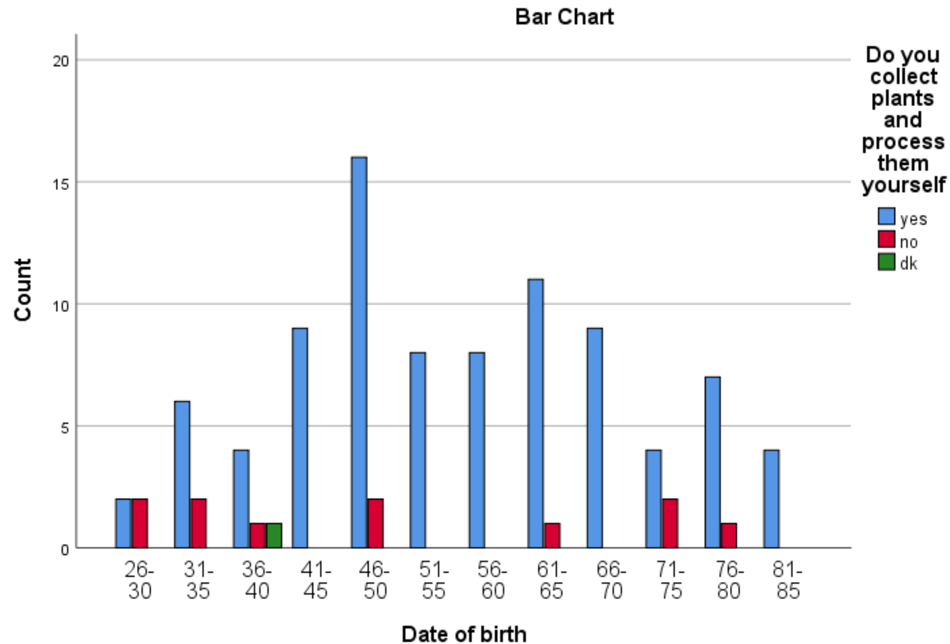


Having access to land owned by themselves, was not the main reason why most of the healers gathered their own plants, since most noted going into the forest or semi-wild areas near crops to gather the plants on lands that was owned by other people, and by the state. Many healers travel long distances to gather roots, leaves, seeds and other efficacious parts of plants in difficult to reach places in hills and mountains. Without my prompting, some healers emphasized the importance of gathering the plants on full moon or half-moon periods of the month as the plants will carry positive lunar effects and be more potent.

When considering gathering of plants by age (see Figure Four), there were a few clusters of "don't gather" in the younger and older cohorts, and one small incidence among people in their 40s. When asked about this, people in the older cohort indicated it was physically difficult for them to gather the plants, while people in the younger cohort

and the cluster in their 40s indicated they didn't know where to go to gather the plants, or the plants were no longer available in their region.

FIGURE 6 COLLECTION OF PLANTS BY AGE



Since I was not able to interview people who had moved away due to SEZ activity[5], but since SEZ dwellers have neither access to farming nor gathering land in most cases, it is likely that the plant knowledge may fade even more in the future.

Interestingly, since training the youth on gathering of medicinal plants or 'food medicines' is rather lukewarm, it does appear than many recognizable healers have accessed some formal "education". Figure Seven reveals these patterns.

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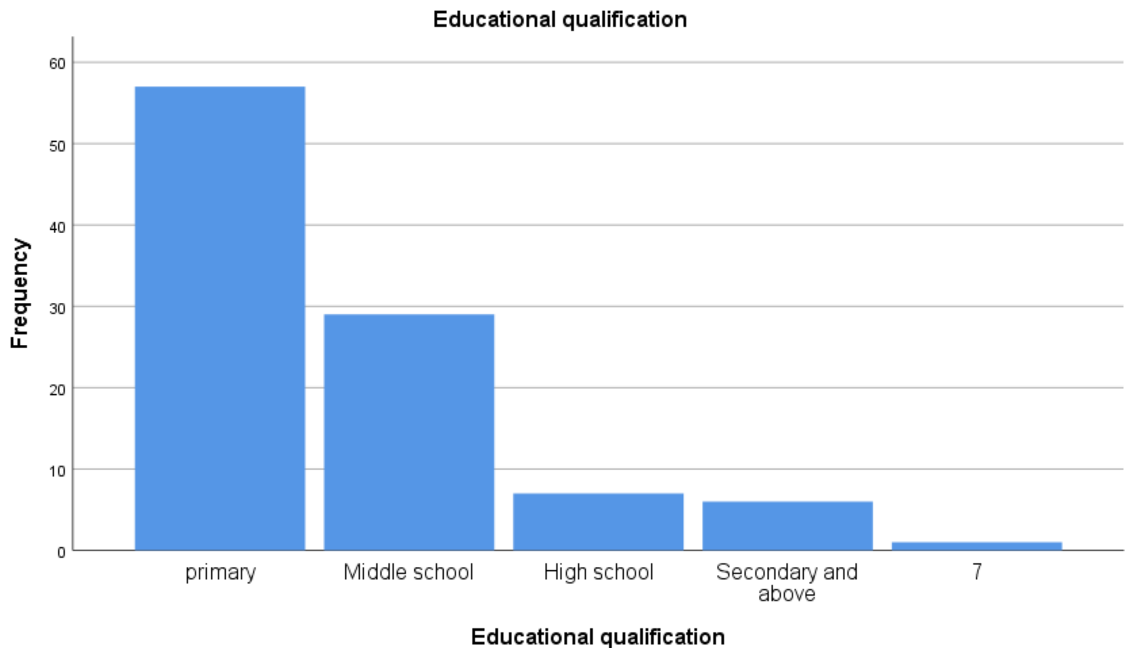
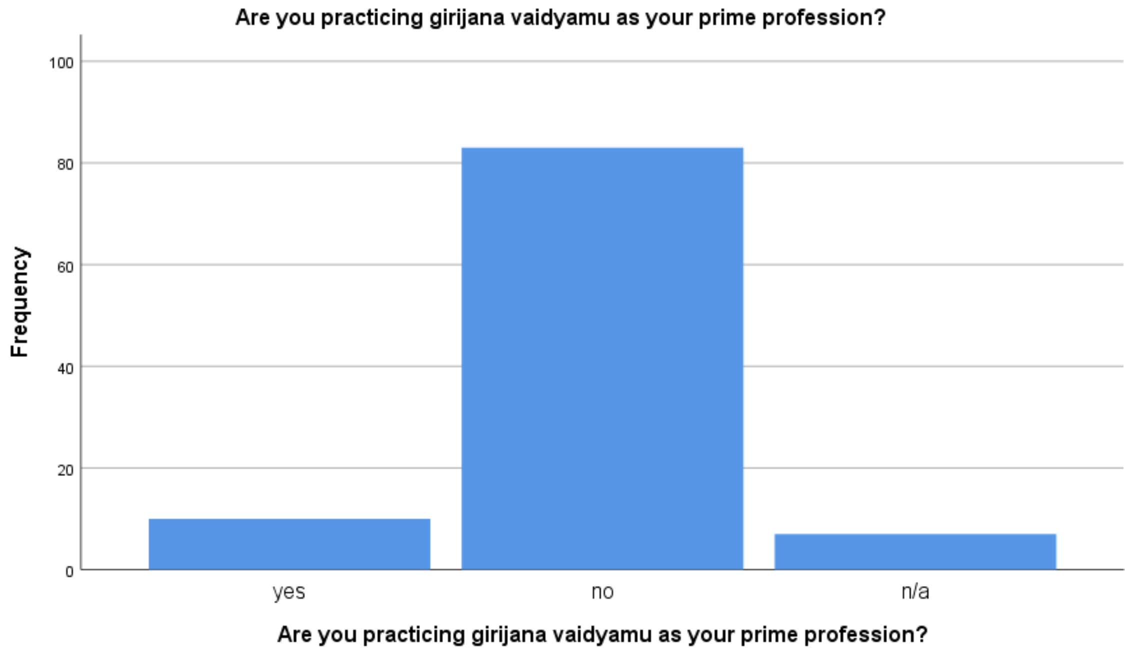
[5]People require special permissions from the industries who own the land where the displaced people live to enter.

FIGURE 7 EDUCATIONAL QUALIFICATION



Most of the healers had received primary education between first and fourth standard. Very few had any high school education. Those who had education were also more likely to know about Vedic (based in Sanskrit texts) forms of health knowledge and to also employ these terms and had travelled to neighboring states like Orissa or Chattisgarh to train. Few of the respondents relied on healing as a way of earning money, or as their prime profession. Most were farming full time and only a few of them viewed their skill as a way of getting money as noted in Figure Eight.

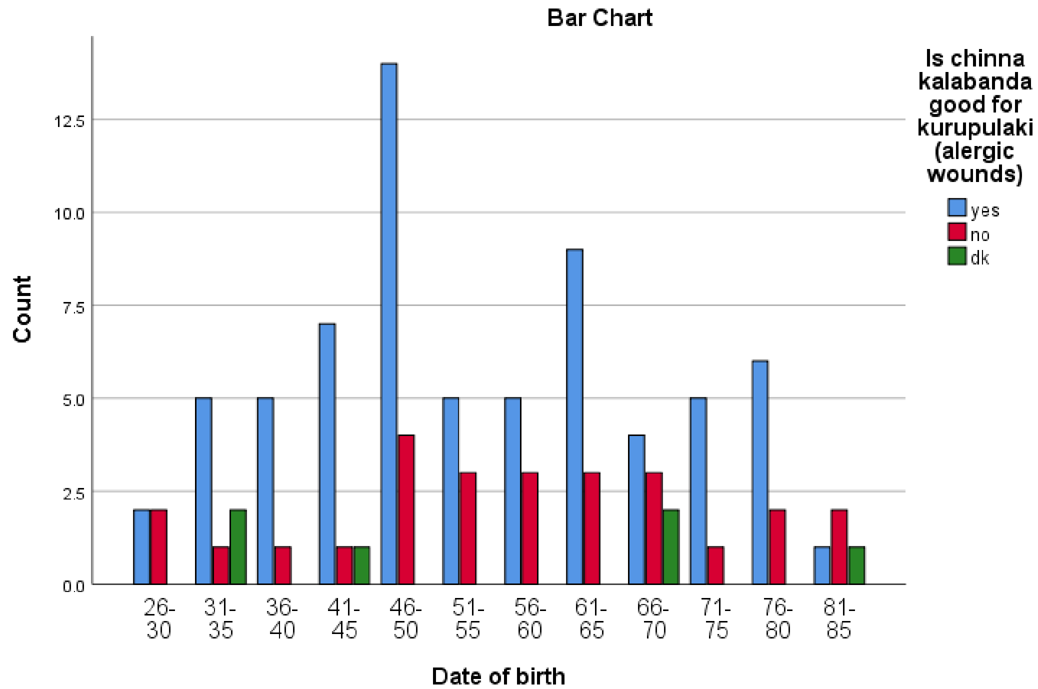
FIGURE 8 DO YOU PRACTICE *GIRJANA VAIDYAMU* (INDIGENOUS HEALING SYSTEM) AS YOUR MAIN PROFESSION?



One healer noted that "I had a special interest in learning. I roamed to different villages and learned from healers there. They never took any money for their services. I also have never asked for payments". Another noted travelling to Orissa and spending few years in Hyderabad before returning back to his rural area but the majority of healers had remained in their region, treating people in a number of close villages. In the next section, I will outline some of the plants that all healers agreed were effective for health maintenance or dealing with minor health issues.

Chinna Kalabanda (Indian Aloe Vera), Latin *A. barbadensis Mill* is a plant that is widely used for a range of health issues from helping to have healthy hair, to treating eye infections and dealing with wounds caused by allergies.

FIGURE 9 IS *CHINNA KALABANDA* (ALOE VERA-LATIN *A. BARBADENSIS MILL*) GOOD FOR ALLERGIC WOUNDS



Quite a few of the healers emphasized the importance of consuming plants with "rejuvenating" qualities. Plants that would help people to maintain their energy and avoid illness entirely. These included the regular use of *Chinna Kalabanda* (Aloe vera-Latin *A. barbadensis Mill*), Holy Basil-Latin *Ocimum tenuiflorum*, *Usirikaya* (Indian Gooseberry –Latin *Phyllanthus emblica*) and *NelaUsuri*-Gale of the Wind (Latin-*Phyllanthusniruri*). The incidence is shown in the Figures Ten through Thirteen on the next page.

FIGURE 10 IS *CHINNA KALABANDA* (ALOE VERA-LATIN *A. BARBADENSIS MILL*) GOOD FOR REJUVENATION?

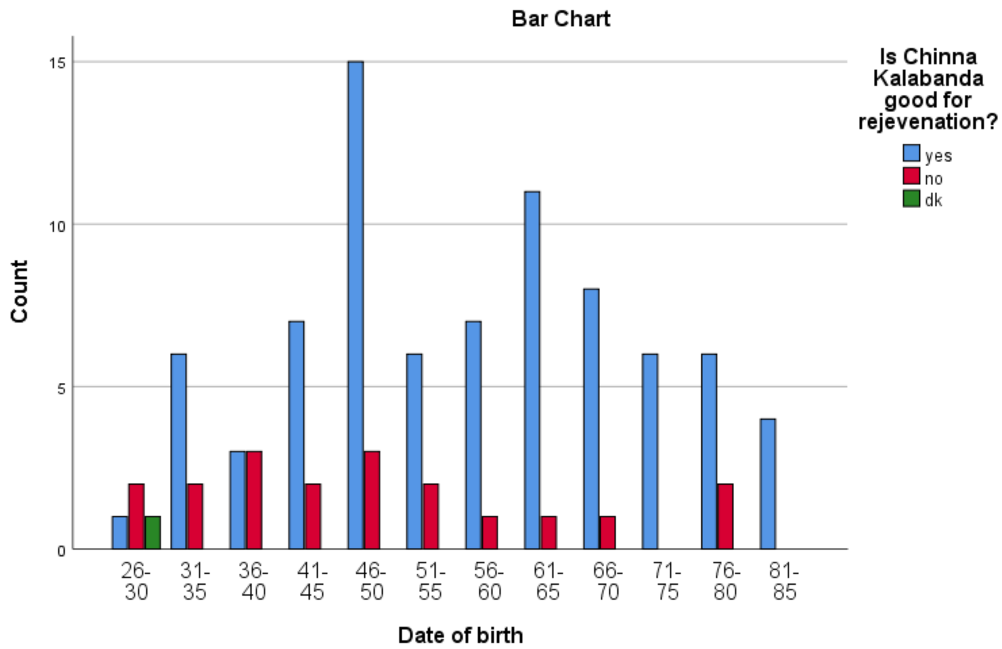


FIGURE 11 IS THULASI (HOLY BASIL-LATIN *OCIMUM TENUIFLORUM*) GOOD FOR REJUVENATION

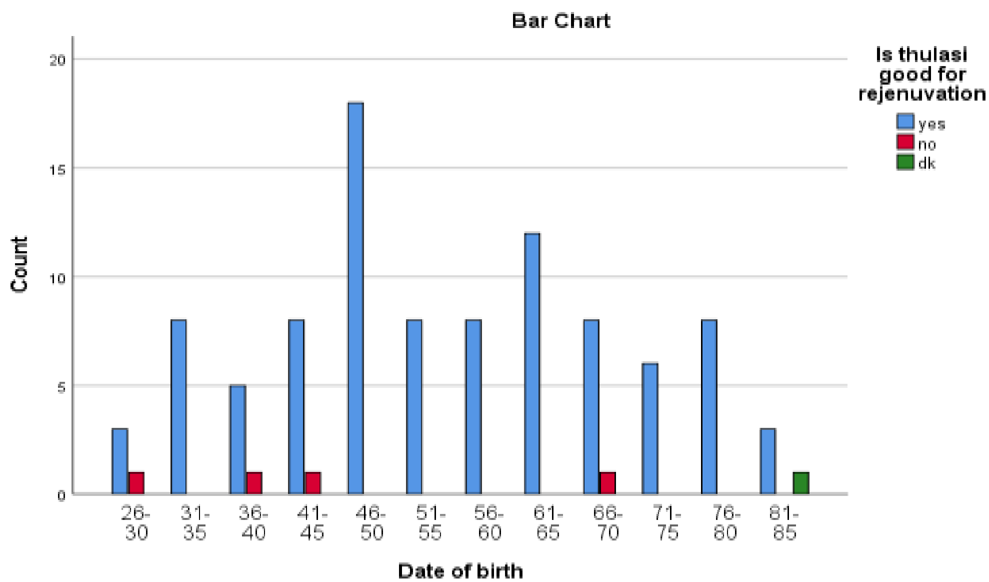


FIGURE 12 IS *USIRIKAYA* (INDIAN GOOSEBERRY –LATIN *PHYLLANTHUS EMBLICA*) GOOD FOR REJUVINATION?

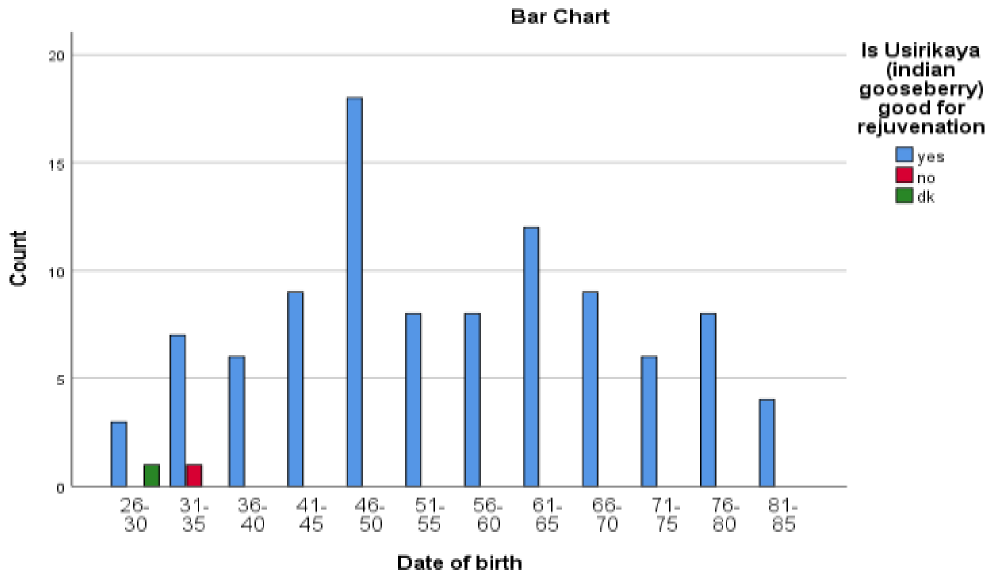
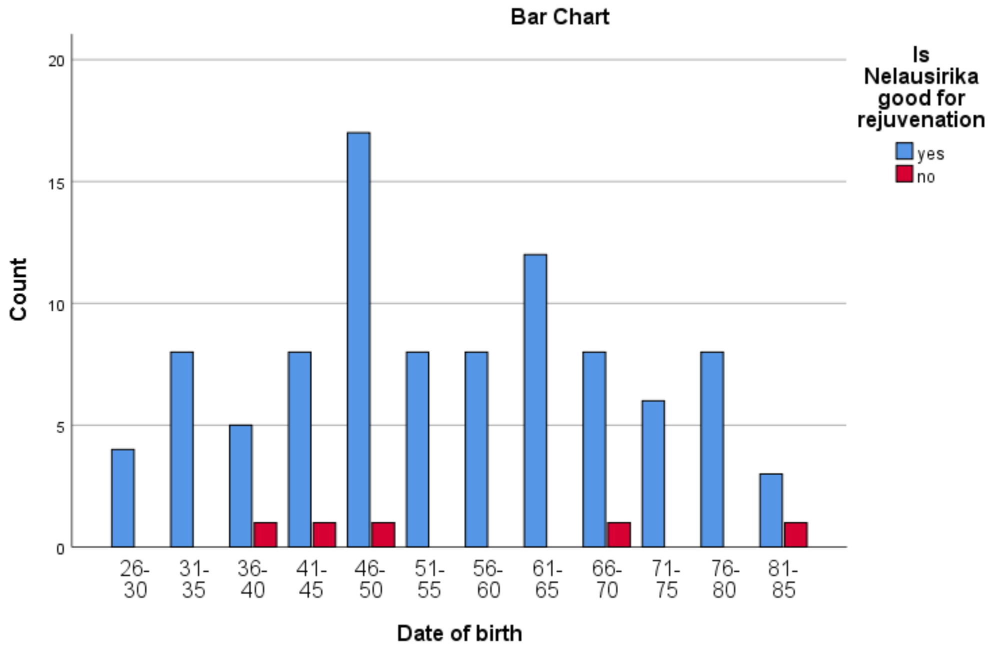


FIGURE 13 IS *NELAUSURI*-GALE OF THE WIND (LATIN-*PHYLLANTHUSNIRURI*) GOOD FOR REJUVINATION?

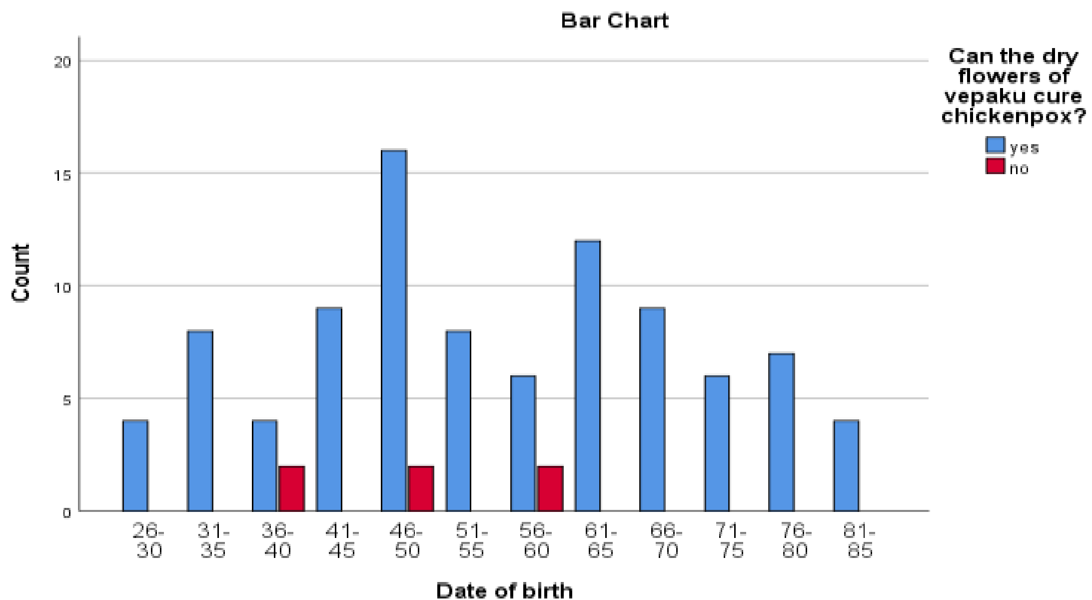


The rejuvenating plants noted above and depicted graphically in Figures Nine to Thirteen, were viewed as effective "food-medicines" (Etkin, 2006; Pieroni & Price, 2006). Pieroni and Quave (2006) referred this category of plant as non-cultivated weedy vegetables (2006, 123) in their comparative study on the use of non-cultivated plants (so-called 'weeds') among Albanians and autochthonous Italians in bordering regions. They found the multiple daily usage of wild plants as food-medicines, functional foods and medicinal goods that had been integrated into the culture for more than one generation (2006, 103). In the Dalitbahujan regions under study, the healers also emphasized the regular use of several plants that have the ability to renew bodily vigor and heal. These plants are also understood as bordering between food and medicine and consumed on a regular basis for health maintenance. The way they are consumed varies from being processed in decoctions created by healers and/or dried and added to foods later, and some advocate consuming them fresh. They were also advocated for rejuvenation and also used in medical prescriptions for fevers, cold, TB, and also as a form of theodicy against various forms of supernatural malelovence.

Aside from these rejuvenating plants or food medicines, the understanding of food as the foundation of health is common sense among Dalitbahujans. As one working aged man from Chittoor explained: *If I don't take food in equal manner, or if it is not enough, I will get a cold, headache and fever. On days when I work in the fields in distance places, I may not get enough food because I need to save the wages to buy supplies for home.* His statement also reflects on the impacts of wage economy in making it difficult to eat first choice foods from home, and the inability of sufficient wages to purchase foods when migrating for work.

Neem is a well-known tree around which many environmental debates have been fought and won in India (The Hindu, 2005). It is used in so many ways and for so many things by *Dalitbahujans* most notably as an herbicide for health plants. But what about for health of humans? One of the uses that stood out during the interviews was of using it for chickenpox. It was also one of the questions which had maximum consensus no matter what the age.

FIGURE 14 CAN VEKAPU—NEEM (LATIN *AZADIRACHTAINDICA) CURE/TREAT CHICKENPOX?*



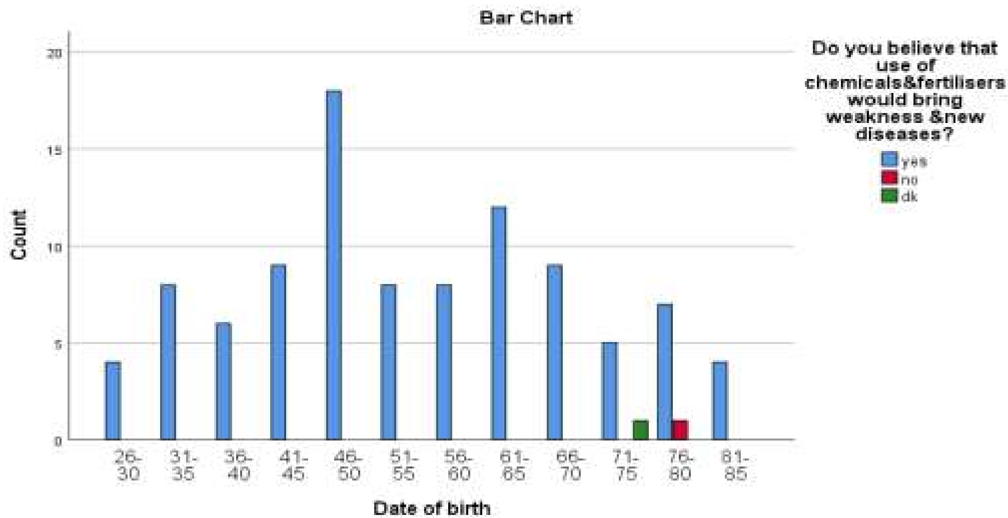
The use of this plant, with its strong consensus for healing of chickenpox is salient since "pox" of various types has been a problematic health issue in rural India certainly since colonial times and at the start of the 19th century was the top killer (Banthai & Dyson, 2004). Healers also commented on the rise of chickenpox cases around 2012-15 speaking about how they battled difficult adult cases using neem, and this may also be the cause of the strong consensus around this question. Many people

refer to all types of pox, whether the smallpox of history or the chickenpox of today as "chickenpox".

5.4. DRY HERBS AND CHEMICALS

Another two items had strong consensus. One of them was about the fact that almost all healers no matter what age, preferred to use dry over raw herbs for their medicines stating that they were more potent in dry form. Another aspect that came up without any probing on my part was that many healers during the interviews emphasized the problems with using chemicals and fertilizers on plants. They argued that they ruined the health of the plants and by consequence, humans. I had not originally included it on the CCM questionnaire, but decided to and the results are below.

FIGURE 15 Do you Believe that the use of Chemicals and Fertilizers Bring Weakness and New Diseases?



This also has a strong consensus regardless of age. One healer in their 60s from Adilabad noted that: *The current situation is different, everything is mixed with the*

chemicals, fertilizers like rice, soaps, salt, and millets, other vegetables and raise these crops with chemicals in the field. Another healer in their 50s from Chittoor noted, *In olden days, people used to eat the native crops jonnalu, jower and so on, they didn't have exposure to the chemicals stuff that they do now as a result, the herbal and ailments are not working against the illness problems at the juncture*. Another healer aged 64 noted: *People buy the vegetables imported from plain areas rife with chemically grown types that may cause to vomiting, chronic illness meanwhile they gave up on our indigenous types. People now use instead, the imported crops from other areas that's where the real health problems start!* Most healers further noted that their methods generally took a long time to work but that if used consistently, they were effective in preventing disease first, and treating it secondly. They further argued that while slow, these methods lacked the harmful side-effects of biomedicine, also known by the widely used English term, "allopathy". One of the oldest healers in their late 70s noted: *We live in nature, we should also treat our health issues with nature. We need water, rice, plants, forest, everything should be there available in a balanced way otherwise there is no life for us. Cure is interlinked with prevention.*

People also recognize the changes that have taken place in their food choices, and sometimes reflected on the impact of these changes on their health. A man in his mid-sixties from Adilabad noted that: *We used to go in forest and hunt for rabbits, deer, forest pigs(wild boar), and I cannot hunt any more so therefore we eat rice and rasam*[v] *or rice and lentils. Things have changed we can't go to the forest very often…So now we go buy food from the market, or once in a month or twice we get ration foods of rice and lentils. We adjust with these irregular supplies, but it is not enough. My father never got*

headaches or fevers like we do and we never had these strange diseases that we see nowadays. We grew up eating our own food but now every food is contaminated with fertilizers and grown with fertilizers or chemicals and it smells like a toilet. The perception that food quality is being compromised by chemicals and changes in staple foods is also widely shared by non-healers.

5.5. CONCLUSIONS

In this chapter I explored some of the data I generated using the CCM method. I found that there is a sharing of ideas about some plants but that the knowledge tends to be more concentrated among people 40 years old or more. Younger people did not always share the same ideas about the plants and in some cases were completely unaware of the uses. Knowledge is both being preserved in some areas and shifting in others. But in spite of some differences along age, people continue to value plants and draw on them for many health issues. Some forms of plant-based healing knowledge is also understood as only the domain of the healers, and not public knowledge, hence I only included some of the information that I gathered during the CCM interviews.

Deploying the CCM method in South India is not an easy process. One has to be fluent in a number of dialects and to ensure to also present the plants names in Latin as the "universal" scientific language. This alone defies the decolonizing perspective but is a part of "science". In order to make it accessible to non-Telugu readers, I have therefore included the Latin Names with the caution. I think the CCM method has a lot of value in gaining insights around consensus, but I do recommend that the interviewer break up the interview with more open-ended questions in between the "yes/no" format, as can be very boring and monotonous for both the interviewer and the respondent otherwise (Bernard,

2017). Garro (2000) did not point to this, but rather noted an extended period of open ended interviews prior to the CCM method. I would also advise to focus in on one or two plants, and/or one or two illnesses to get at more nuances of meaning; something that I will do in future studies.

I hope that this modest foray into the CCM method may inspire other *Dalitbahujan* anthropologists to try it out for themselves to generate and work toward valuing our long-term knowledge of plants and non-invasive, common sense ways of building health and treating illness. In the next chapter I explore a sub-group of Dalitbahujans: *Vaddera-Stone Cutters.*

CHAPTER 6 *VADDERA DALITBAHUJANS*

The focus of this chapter is on *Vaddera Dalitbahujans* of Chittoor, Andhra Pradesh drawing on interviews with *Dalitbahujans* in Chittoor district, and also on autoethnography as I am a Vaddera Dalitbahujan. I include it in my dissertation as a form of decolonizing the studies of my region, and a way of preserving some of the indigenous knowledge of the region.

6.1. NEW *DALITBAHUJAN* ANTHROPOLOGISTS AND OLD ANTHROPOLOGY

Over the past three decades, India has produced some of the finest practitioners in the Anthropology (Murthy et al., 2006), yet unfortunately many of these scholars remain largely unknown in North American and European Anthropology. Even as great a household name in India as Kosambi (2005), remains largely unknown. This kind of omission is very unfortunate for the growth of the discipline and for all students of anthropology because a great deal can be learned from these Anthropologists who have strengthened theory, and who developed strong methods for conducting “anthropology at home” (e.g., Narayan, 1997; Sarana, 2007, p. 322). This kind of critical personal reflection into one’s own culture is not at all new in Anthropology (Daniel, 1994; Escobar, 2011; Narayan, 1997). While there is of course much diversity and many caste-based differences providing enough essential “difference” for the anthropologist, it is still “anthropology at home” because the practitioner and the subject are bound by the same national borders, as artificial as these may well be (Robbins, 2008; Ortner, 2006). Yet in India, I feel that there is an urgency to strengthen all Anthropology Department's capacity to train students and send them to the field site to collect data from the communities and

castes whose lives are in rapid transition due to the intensive capital penetration into all segments of life (see Reddy, 2007; Prasad, 2007; Sarana, 2007). There is also a significant generational aspect to this knowledge for many of today's Indian anthropologists were trained by top practitioners who themselves had strong links to Anthropology colleagues and teachers in the West (e.g., Prasad, 2007). Thus, I echo Ribeiro and Escobar (2006; Knauft, 2007) on the growing importance of non-western voices and non-western anthropologists and seeing these voices influencing the future of the discipline of a world anthropology (see Kasi, 2008; Ribeiro, 2006).

In regard to 'Indian Anthropology' or the 'Anthropology of India', there is still significant work to be done to decolonize the discipline and evaluate past works (Srinivas, 1980, 1995; Srinivas & Panini, 1973; Vidyarthi, 1966) and the agenda of those going on now and in the future as has been happening in spurts in other fields by indigenous or racialized scholars (Battiste & Bouvier, 2013; Dei & Kempf, 2006; Dei, 2012; Hernández-Wolfe, 2015; Sleeter, 2011).While India has been at the forefront of "post-colonial" movement in literary studies and social science in general (Berger, 2012; Dirks, 1992; Prakash, 1994; Sivaramakrishnan, 1995; Spivak, 2010), it still lags behind in regard to issues around caste, and/or *Dalitbahujans* in general and has been open to critique for a skewed perspective that privileges particular world view (Nanda, 2016; Jangam, 2016). I will touch more on these aspects in Chapter Seven.

In this chapter I want to underscore the need for *Dalitbahujan* anthropologists to critically reflect on their own valuable experiences in their communities. Also, to include other qualitative and quantitative methods as other indigenous or marginalized communities have done (Gespe'geaw'gi Mi'gmawei Mawiomi, 2016; Smith, 2012) and

to be able to engage in ‘storywork’ (Smith et al., 2019). By combining their own experience and authoethnographic reflections, they can yield rich information and it is part of the decolonizing process. It is also a testimony to the personal journeys and obstacles that have been faced, especially by *Dalitbahujan* anthropologists. Revealing this experience will enrich the discipline in India and abroad by exposing how these anthropologists experienced some upward mobility by becoming intellectual workers and yet still get degraded by the caste hierarchy. *Dalitbahujan* anthropologists can bring uniqueness to anthropological reflection (Stewart & Strathern, 2002) at a time of concern about the status of the discipline in India (Reddy, 2007; Prasad, 2007; Stief, 2007) with young students preferring medicine, engineering or Information Technology (IT), but the potential is there for the emergence of *Dalitbahujan* practitioners who can break open new areas of enquiry and offer new perspectives that will revitalize the discipline in 21th Century India (Srivastava, 2007). This in turn, I believe, will contribute to a Humanistic “world anthropology” (e.g., Ribeiro, 2006, p. 76; Smith, 2012). In this chapter the focus is on livelihood and uneven capitalist development through history and a rapidly changing global economy (Deb et al., 2002, p. 2; Smith, 2001, p. 357) in Chittoor.

6.2. *VADDERA DALITBAHUJANS IN* CHITTOOR

Chittoor was part of the Madras Presidency and bordered with Tamil Nadu. Many people in Chittoor understand and can speak Tamil among those who do speak Tamil very few ever learned Tamil scripts. There are also people who can speak and understand Kannada as it lies on the way to both Chennai, Tamil Nadu and Bangalore, Karnataka. It has among the hardest land with very rocky soil in the entire region. This rocky and hilly terrain restricts the agricultural activity to the flat lands and terracing is not practiced due

to lack of the water resources. The region is very dry and the lack of water in summer makes agriculture nearly impossible. There are no regular water canals in the village as they are only rain-based through the use of tanks and wells. When you get rain you will see the water in the tanks and wells and if not you won't see a drop of water there because it is semi-arid region. Coconut, jasmine, moringaolifera (moringa), tamarind, and papaya are grown in the region and also, guava and pomegranate, mangoes and leafy vegetables. Ravi trees, and banyan trees, are considered as husband and wife. When you have a banyan tree you automatically see the ravi tree as well and are considered as sacred plants for some Vaddera. People also use banyan tree fruits for consumption and the leaves can be woven into plates and sell them at the weekly market to help out with the family home consumption. During famine and drought, people can cut these leaves and can also feed sheep, goat and cattle.

In the summer, most families migrate away from the village for some six months to take up wage work such as stone cutting, digging or unskilled agricultural labor for upper caste people in the nearby towns and villages. They are very reliant on both good rains, and ability to have money on hand to invest in seeds that are in demand on the market such as rice and tomatoes or groundnut, fertilizers and so on.

In this region, a dominant group are the Vaddera *Dalitbahujan*, also known as stone-cutters. This is also in my own name “Yalamala” is a form of “Vemula”. Vaddera Dalitbahujans are classified in different ways in different states, so that in Karnataka Vaddera are classified as Scheduled Caste or Dalits, but in Andhra Pradesh were once referred to as “Criminal tribes” or “denotified tribes” during the colonial period, and later classified as Other *Backward Classes*s (B.C. Commission, 1970; Kannabiran et al., 2017;

Gandhi, 2012; Torgalkar, 2016). Article 340 of the Indian Constitution indicates that the state must promote the welfare of OBC and they now come under the jurisdiction of the Ministry of Social Justice and Empowerment. There is a 27% reservation for OBC in public sector positions and government funded institutions, however, these are often ineffective for Vaddera *Dalitbahujans* (Gandhi, 2012). While political processes in post-colonial India have come a very long way to speed-up many changes in the relationship between elites and subaltern classes (Roy, 2008, p. 31), there are still many people who sometimes fall between the cracks. In some cases because of the nuances of entry requirements into programs and postions which may be lower for some categories or the private sector which tends not to consistently honour reservations. Moreover, since the OBC, ST and SC are more fluid categories, and as noted above, in some states Vadderas are SC in some we are listed as Denotified, and in others as ST; the lack of consistency of terms and reservations at the state levels, means that some enjoy reservation in some states and others lack those protections. In some states there is a demand that all Vadderas should be listed in the ST category and many have been fighting for their demands to be considered by the Federal of Government of India.

In his study of Pan-Indian circulating labour, Ian Kerr notes the following:

> In 1770, a British official in Madras observed groups composed of men, women and children who formed 'a kind of travelling community of their own under a species of government peculiar to themselves, with laws and customs which they follow wherever they go'. These itinerant, coveted groups of earth and stone workers – 'even courted by Princes' – circulated from worksite to worksite where they dug tanks (small reservoirs), ditches, and wells, and built roads and fortifications. They lived close to their worksites in "temporary huts (sic) which they throw up for the occasion, and always chuse (sic) a spot distinct from any village, wandering from one place to another as is most convenient" (2006, p. 85).

It is widely known that the Vadderas are traditional earth and stone workers distributed throughout the state. Sometimes they are referred to as *Vadda, Vaddera and Wudder*. The word 'Vaddera' is said to be a corruption of the Sanskrit term *Odhra,* the name of the country now called Orissa, and the people are supposed to have emigrated from the Orissa state (Gandhi, 2012; Thurston, 1990). They are Telugu people, who came originally from Orissa. Thurston (1990) also says that the Vaddera *Dalitbahujan* call themselves as *Pachcha Nothu* and are residing in Ganjam, Vizagapatnam and Godhavari districts (c.f. Kerr, 1995, 2012, p. 96).

Kerr indicates that they were known as "…Oad, Odhs in the Punjab, Nuniyas in the central Gangetic valley, Oddar in southern and western India. The latter, with names specific to the regional languages of the south and west (e.g. Waddar/Wadar in Kannanda and Marathi) were known generically to the British as Wudders. Likely originating in Telugu speaking parts of the Deccan south, they were most probably the workers seen by Patterson in 1770" (2006, p. 94).

Francis Buchanan encountered migrant groups travelling across Mysore, Kanara and Malabar and he called them "Woddas" or "Woddaru", a tribe of Telangana origin (Buchanan 1807, p. 310) who "…retained the Telugu language despite their presence throughout Tamil and Kannada speaking areas" (Buchanan quoted by Kerr, 2006, p. 96; see also Thurston, 1909). Hassan (1920) records a legend on the origin of the popular Telugu folk-tale of '*Mayala Fakir and Balanagamma'* by the Vaddera *Dalitbahujans* of Anantapur District (see Gandhi, 2012).

By the turn of the Century, the Vadderas were still mainly migratory skilled laborers engaging in stone cutting and digging of wells. Many of the people in the region had parents or grandparents who were bonded laborers well into their adult years. My own father was a bonded laborer to a wealthy family to pay off a family debt up until he was 21 years old. He spent his days working for them and returned home at night. On weekends he sometimes worked in the family fields and on the side, he sang in a popular theatre troupe in the area. My father was trained as a stone cutter and he carved the stones of our small house out of local granite long before I was born and my mother labored for wages on local farms and in quarries shaping stone formenial wages. The specialized tools they used are huge heavy and made of iron and one has to be very strong to be able to wield them, when not cutting stone, Vaddera *Dalitbahujan* were moving earth, digging, for infrastructural works throughout the region. Ian Kerr (2006) is very clear about the contribution that the Vaddera caste made to building India's colonial infrastructure. He also, very admirably, takes issue with the contradictory colonial era (anthropological included) depictions of them as hard-working men and women who are also basically drunkards and untrustworthy thieves (2006; Gandhi, 2012). As I shall see later in the discussion, new types of modern stereotypes about these hard-working people have emerged on the scene.

The Vaddera *Dalitbahujan* form into work groups called gangs and undertake earth, quarrying works etc., on the contract basis. The men dig while the women remove the dug earth from the site. No wage differentiation is made between the kind of work women or men do, all do hard labour. They also engage in agricultural labor for their own farms, or in towns for money when necessary. The word "vaddera" or "wudder" also has

a negative connotation and can be used in an insulting manner. One of the local folk tales invokes food as a central metaphor for identity that gets repeated often and here I share a common version gathered from an elderly man in Chitoor: "people are proud of their community and no one feels that they are better than others – all are equal. During festive occasions people are fond of celebrating the clan rituals (*kula*)…We are not 'Wudders' which to everyone means'quarry-digging workers'…since time immemorial were kings but the Brahmins and Vaishnas made us lose our status due to our practice of eating meat especially rats, squirrels, cranes, etc. They insulted and blamed us that 'you have lost your status' before that we were astrologers, priests and kings". This widely held belief that Vaddera once occupied a higher status in society, maybe be a way of coping with the poverty and want that many Vaddera communities experience.

In this region, many of the houses are built of giant slabs of stone-hand fashioned by the people over generations. These stone buildings are extremely durable and strong and the nature of the stone is such that the inside of the house in cool in summer and warm in winter. Thus, they are ideal structures for the dry hot climate of the region. Most houses have a mortar built right into the floor and some use cow dung, again which is strong as concrete once dry. People will apply fresh dung prior to important festivals and clean up although one corner of the house will be deliberately left messy as a way of warding off the evil eye. These forms of theodicy are common in rural Andhra Pradesh where Dravidian norms prevail (see Yalamala, 2016). All around the landscape and fields, one can marvel at the remarkable and formidable evidence of they have left behind for the human eye to enjoy of the out massive stones fences and house pillars that dot the landscape.

Up until the 1960s, most of the villagers went to surrounding villages and intermixed with other groups such as Muslims and continued to engage in migratory labor as stone cutters, diggers and did other types of manual labour. As Kerr notes, “These same groups, moreover, were marginalized, even criminalized, by the authorities and local inhabitants in the areas through which they moved. They became the quintessential social outsiders, the feared, despised or degraded “others” despite their importance to local economies" (Kerr, 2006, p. 86).

By the 1970s, many Vadderas have become semi-sedentary. This seemed to occur rapidly according to elderly and middle-aged people I spoke with. Many Vaddera villages are located a long distance from any public transportation such as buses. There are few, and in some cases, no buses at night. In the case of emergency, people would have to go nearest town by cycle and must hire an auto, a service which could cost between 200-500 rupees. Considering that most households’ earnings are in the yearly range of 30, 000 - 40,000 rupees, 300-500 rupees is an exorbitant amount of money.

6.3. Income, Debt and Value

As noted earlier in the thesis, Andhra Pradesh is oriented toward agriculture with 75% of its population of 75.7 million people living in rural areas with some 70% being dependent upon agriculture as their main economic activity (Kasi, 2008). The average land holding is 2-3 acres but many are landless and this pattern is expanding in prevalence. In recent years, there is a trend for wealthy land owners and those with capital from outside of region, to purchase land with amounts of money that are far larger than most farmers *e*ver had seen. Yet according to market value, amounts to

only a fraction of the worth. Through this means, many people lost the little land they have without fully realizing the long-term implications.

Since the land is mountainous, however, not all of it can be cultivated. Two acres of good land is enough to produce rice for a family of four for the year but not all who own two acres have cultivable land. Thus many rely on government subsidized rice which they purchase at a lower price of rupees 10 per kilo gram. For example, "we do store rice but it is not enough. Three acres with irrigation and bore wells it works out but most people do not have enough land or enough good land. Generally in the village people are getting government subsidized rice – every family has a ration card and rice is provided according to family size…what our parents have said is that 'in the past, a couple of years ago I got onions for rs3-5 per kilo but now it became rs 40-60 per kilo'.

For those who do have access to land, the first crops are sown in July and August and by the end of October the paddy crop is cut, dried and stored. Many households until recently stored the rice in four-foot-high clay pots which are made in another village by a potter caste group, although nowadays plastic is more often used. In the rainy season between July and October, families are planting paddy, ground nut, pumpkin, little fingers, sunflowers, onions, brinjals, beans, tomatoes (a high risk crop in that it can bring much money but requires high inputs), chilies and jasmine. In the cool season between October to January, families may plant some coriander and onions (e.g., Kerr, 2012). In the summer season it is more difficult to cultivate due to lack of water and irrigation infrastructure although most farmers have wells[6]. Thus during summer months, whole

[6] For example, for seven acres are four large wells.

families migrate away for wage labor in Hyderabad, Chennai, Anantapur, Kurnool, Cuddapah and other places in Chittoor district, returning in the rainy season between July and October. Some families may have to hire laborers to help them with planting and harvest, while others use a form of exchange labor whereby, they take turns helping each other in exchange for two meals per day. While harvest festivals still take place, they have downscaled significantly in recent years and this is true in general of *Dalitbahujan* farming communities (Yalamala, 2016).

Ground nut (sold at rupees 60-70 per kilo) is viewed as a crop that can be used to get out of debt whereas sunflower and rice (sold at rupees 55 per kilo) are viewed as crops to be used for normal cash needs. The Andhra Pradesh government has introduced a scheme whereby during the summer season the government will provide employment for 100 days and if employment is not available, they paid individuals in the form of compensation of 100 rupees.

Household income ranges between 50,000- 60,000 rupees per year and the average debt is anywhere between rupees 80,000-100,000 per year or more, depending upon how much risk one took in borrowing to buy fertilizers and pesticides (phosphates, chlorine, powders) for cash crops like tomatoes. For example, it may take anywhere between 50 to 80,000 rupees to buy pesticides and fertilizers for tomato crops but there is no guarantee of a return if the rainfall does not come. Family members take turns in selling the products at the bi-weekly farmer’s market near the village.

There are many ways in which people can get into debt including: marriages, purchase of livestock, purchase of grains, purchase of land, constructing or repairing

houses, gold purchase, dowry needs, and/or digging a bore well. People may also borrow money for medicines and health or for clothing and material for festivals. One thing is certain: the household income in the village is not sufficient to meet all the household needs.

Only rarely are loans from "formal" money lending institutions like banks sought (Shah, Rao & Shankar, 2007). Banks only give loans when the individual will give a surety which the Vaddera caste people are reluctant to do so even though interest is low (10 for 100 rupees). Thus, the alternative is to approach the higher castes (e.g., Kumari & Bhaskar, 1998) for borrowing money at very high interest rates (rupees 100 for 1000 rupees). The individual property was introduced to subvert the idea of public commons of *Dalitabahujans.* Simultaneously, colonial masters/money lenders, business castes vaishyas (Kancha Ilaiah noted Baniya Caste hides money under Gupta nidhi -called it as smuggled caste (2007), *Dalitbahujans* were trapped in a cycle of debt. Banks ask for the property documents which many *Dalitbahujans* don't possess (either the documents or the actual) land/ house properties. They end up taking out loans with high interest loans with family, money lenders and caste networks and trapped into the permanent cycle of indebtedness and poverty over the last 100 years. People will sometimes take a huge risk and borrow to buy pesticides and fertilizers and then may lose the crop. In this case when they cannot repay the loan, they will be forced to sign over a portion of their land or gold to the money lender. If there is no land or gold, but they do have children, they may be forced to sign over the child to the money lender as a bonded laborer. These patterns exist across India wide in which "the balance of power was terribly skewed against the poorer 'lower' caste farmers who faced a cumulative and cascading spiral of expropriation"

(e.g., Shah, Rao & Shankar, 2007, p. 1352). As one person noted, "People are always going to informal sources because banks are not giving loans unless they give surety – put ones land on that loan, may be put ones gold on that land, or put ones cattle on that land- so only available access is the the money lenders with high interest rates; collecting double interest. Sometimes farmers are committing suicide if they cannot repay the loan by consuming poisons or pesticides or phosphates".

In 1977 and 1980s there was a drought and a consequent famine and more recently, from 2005 to 2007, there was another severe drought in the Chittoor that crushed many rural farmers' lives. Normally in summer season the majority of families migrate to Hyderabad and other places in Tirupathi 70 km away, and Bangalore 190 km away, for work (Shah, Rao & Shankar, 2007, p. 1353). Young men also take up jobs as 'drivers' of bull dozers, and tractors or lorries (local word for 'truck) and may migrate to Tamil Nadu, Karnataka and other regions of Andhra Pradesh to work and will send the money back home to run their parental families and their own nuclear families if they have one. Some also leave and may never return again for good. Some people have also opted to go to the Middle East as migrant laborers. They normally stay in the Middle East for minimum of three years. Migrants returning from Middle East enjoy high status with much money and ability to build house and acquire more lands although some tend not to return permanently.

For those who remain behind, retaining a link with their traditional occupation of stone cutting, quarry work and other types of so-called "coolie work" a discursive remnant from colonial British days, the Vaddera caste people in Chittoor have in some ways have experienced uneven capitalist penetration in the agricultural economy. Similar

to Mexican quarry workers experience (Binford & Churchill, 2007), that working away from home and negotiating cultural and linguistic differences "pre-prepared" (2007, p. 367) some Vaddera *Dalitbahujans* for the difficulties associated with semi-subsistence agriculture and labour "diversification" (Deb et al., 2002) that were ushered in with economic liberalization in India.

6.4. GENDER ROLES

Both men and women do manual labor and agricultural labor. Women view themselves as chiefly responsible for child-care, but in most households, men do a fair amount of domestic work. Some men cook and prepare the daily meals should the other family members be occupied in the fields. Even if the woman is at home, the men may engage in food processing depending upon the context within the house. Teenagers of both ages prepare food when out farming using available foods from crops and /or semi wild/wild foods. Both women and men enjoy public singing.

In contrast to numerous development schemes that only focus on empowering women, I want to emphasize that such schemes tend to distort the everyday realities facing women and men alike as they struggle together to maintain their livelihoods and secure a future for their children (Green, 2002, p. 63). The old gerontocratic patriarchy often assumed as a universal norm in India is also rapidly transforming (Garikipati, 2009). The father of the household has no real basis for power due to economic changes in the agrarian lifeway some of which noted already (debt, land loss, migrat work). Moreover, fewer youths are forced to switch away from a life of farming and take up work as lorry drivers, or engage in wage work elsewhere such as in industrial chicken farms or working for large land holders from upper caste groups. In other words, elder

males do not wield power and control over the family as been the case in other societies that shift their methods of agricultural production in a capitalist context (Onselen, 1996).

The vaddera gender history is an interesting topic explore. According to Hassan (1920) the Vaddera *Dalitbahujans* had 72 exogamous sections and observe a very complicated system of endogamy. The predominant type of the Vaddera's marriage was cross-cousins. They prefered mother's brother's daughter, father's sister's daughter or sister's daughter for marital alliances. The average age at marriage for male and female was 18-20 years and 12-18 years respectively. Monogamy was the norm but polygyny was also found. The traditional marriage symbol was *nallpusala danda*-a necklace made out of black beads and Buchanan described the marriage ceremony as "simple" (1807, p. 310). Divorce was allowed, with the approval of the caste panchayat generally on grounds of adultery. Remarriage (*kattubadi)* of divorcees and widowers was permitted, with the formal approval of the caste panchayat. A woman in this community can divorce and remarry 12 times and wasreferred to as *Pedda boyalasani* and commanded a lot of respect from all sections of the community (Hassan, 1920; Rao, 1990).

It is significant to note that in recent years the relative historical flexibility enjoyed by Vaddera women in leaving an unhappy marriage through divorce has been compromised. Although the power of the male elders has diminished, the younger generations have much more rigid views of marriage and family systems and today divorce is frowned upon. Hence, hen divorce does occur, there may be some stigma attached now a days and premarital sex is equally frowned upon. The cause of these hardening of attitudes is unclear, however, it can be hypothesized that the Christian missions in the region, and the revitalization of ultra-orthodox Hindutva ideology in the

1990s may have had some impact on promoting the normative Brahmanical female ideal (see Ortner's excellent analaysis 1978). This point is very important, because when one scrutinizes the available sources, we find that the degree of flexibility in divorce and pre-marital sex practices as well as post marital sexual experimentation were much more prevalent in the Hindu system than Hindutva ideology would acknowledge. Altekar (1988) for example, provided much evidence as to the relative flexibility that once existed in pre-Christian times. For example, the early Dharmasastra literature indicates that divorces were permitted before the beginning of the Christian era under certain well defined instances such as the husband who abandons his wife, the husband who is impotent, insane, or suffering from an incurable or contagious disease (Altekar, 1988, p. 83). In actual practice down to the Christina era, divorces and remarriages took place frequently in all sections of the society as in the Atharvaveda which notes that a women could remarry if her husband was absent from her between a period of 10 months to five years (ibid). Altekar also notes the following: "Kautilaya gives detailed rules of divorce intended for the couples who found it impossible to live with each other. They were, however, applicable only to Asura, Gandharva, Kshatra and Paischa marriages…if the husband or wife hated each other, divorce was to be granted" (1987, p. 85).

With evidence defying the tenants of primordial monogamy, Altekar found evidence to show how views shifted through time:

> At about the 5th Century B.C. a wave of ascetism passed over Hindu society. Though there was a great deal of opposition to it, the ideal of renunciation and puritanism became very well grounded in society by about the beginning of the Christian era. As one of its natural consequences society began to hold that a girl could be given in marriage only once. To divorce one husband and to marry another, because the marital life was not happy, began to

> appear as a grossly sensual procedure. Society, therefore, held that even if the husband were a moral wreck, or were grievously ill-treating his wife, the latter could not claim any relief by way of divorce (1987, p. 86).

Moreover, it should be noted that by 1911, marriage, gender and the family were affected by the policies of the colonial state through a revitalization of the caste system through a policy of social conservatism. Brahman scholars were recruited to institutionalize the most reactionary aspects of Hindu customs and usages (Bhadra, 1989, p. 341). As Washbrook noted: "Under their influence, the personal law recognized and validated the caste system and the Varna theory of social order. It also applied an anthropological definition to the concept of family and to the proper basis of relations within it. With the support of British power, the Hindu law expanded its authority across large areas of society which it had not known before…There is evidence that processes about nuclear family formation were set into reverse; the discretionary and voluntaristic elements of family relations were suppressed by enforced prescription; that the position and independence of women declined" (1914, p. 653-655).

What is interesting, however, is that inter-caste and out-caste marriages have increased. Characteristics of industrial capitalist settings is the entrenchment of the rather oppressive monogamous marriage ideal[vi], but the relaxing of caste-based marriages. As Altekar stated three decades ago: "This state of affairs is undoubtedly unsatisfactory; it is against the spirit of what is best in Hindu culture…divorce should be allowed in cases of proved extreme hardship. In the interest of solidarity of society and of the purity of morals, it is desirable that deserted wives should be allowed the remedy of divorce, if

they desire it (1987, p. 88). In this regard, Vaddera were more advanced at the turn of the 21th Century, but succumbed to the pressures of Hindutva and the contradictory social processes of uneven capitalist development. Hopefully the newly educated people will also take up enlightened practices in the welcome in another stage of flexible marriage patterns.

Nowadays, all the rituals are performed within a day at the bridegroom's place as people lack time from work and it more difficult to come home from farther towns, cities and other states. The consummation of marriage takes place either on the same day or on the third day after the marriage. Majority of the Vaddera families are nuclear. Inheritance is normally patrilineal but in the absence of sons, the entire property is equally shared by the daughters. Sometimes, the eldest son gets a higher share (*jyeshta bhagam*). In the past, Vaddera *Dalitbahujan* marriage ceremonies lasted for four days.

There is a rich cultural practice embedded within the marriage ceremony as well as marriage negotiations. There is a prolonged exchange of beetle nuts and many other numerous items between the prospective families. There is also much speculation about the offspring of such unions. When a man's sister becomes pregnant and all signs indicate a girl child, the brother may allude to the "watermelon" that will come back to him. The meaning of this is that he is staking his claim on the girl child as a potential marriage partner for his son; cross cousin marriage being the cultural ideal. In reality, women have significant input in their marriage partners. Peoples choices are influenced by periods of work in the towns and cities, and also watching Bollywood and Chennaiwood, Tollywood (and all the other "woods" in the vast landscape of Indian cinema) films many of which problematize the forms of marriage that were modelled

after British Victorian norms. For example, while cross-cousin marriage is the preferred pattern, many youth go for "love marriage" with a person who is neither a cross cousin, nor even a Hindu. I will explore the ways that foreigners and upper caste scholars portray the practice of cross cousin marriage in the next chapter.

There are many interesting stories and songs about love marriage and how a woman might "catch" a boy and "put him into her basket". Sometimes the boy or man who is "caught" by the woman might be referred to as a hen or a cock and that the girl has "got a hen in her basket" or "has a cock in her basket". Other stories might allude to the woman sticking out her legs to make a man trip over them, or of a man "falling into a lake", or "falling into a well", meaning that he got into much trouble after marriage. In general, Vadderas have a wide repertoire of songs ranging from songs about metal containers, to plough plugs, to crops and romance, etc. For example, there is one song sung by women about "metal containers":

"Oh my little metal container, where are you?
Without you how will I have any chutney?
I go to the market and I see you there
And I think of the curries and chutneys I could put in you"

This song also contains a kind of material cultural history of containers, for the Vaddera Dalitbahujans used to mainly cook and store with clay pots but more recently switched to stainless steel.We speak of the clay pots as being very fragile and breaking easily which creates a burden on the woman as she is often cooking and preparing foods, although, as noted, more often than not, people take turns in the household preparing meals. More recently, competing with stainless steel, are the newer and cheaper plastics

proliferating on the market but to date I am not aware of any songs being sung about them. Certainly therepertoire of ancient songs and stories constitute an important strength that the individual and community can draw upon during challenging times.

6.5. CONSUMPTION PATTERNS

In the past, Vaddera *Dalitbahujan* peoples caught and ate rats by sending thick smoke into the rat burrows, a technique referred to as 'udara', and many people still engage in this activity in some places. Once in a while people go the forest to catch rabbit, squirrels, rats, porcupine and so on and the preparation methods often involve roasting, or frying.. Generally, the forests are classified into two categories, *chinnaadavi* (small forest) and *peddaadavi* (big forest) which means thick forests with bush, hard to get in. Small forest is portrayed as neighboring waste lands adjacent to the hills and water tanks, water canals. Nowadays goat meat, chicken or fish are also consumed during festivals and the celebrations. Pigs are raised in and around the village and also consumed. Cows are used both for tilling land as well for milk production but not eaten on a regular basis for they are more valuable for a regular supply of milk.

Most families consume rice as a staple. The people love their locally grown rice and are aware that it is the most sought out high quality rice around India. The grains are very small, sweet and mixes very well with various curries making it easy to pick up with the hand. In contrast to this people refer to the "big" par boiled rice of Kerala which does not mix well with curries and is very difficult to pick up with the hands, or the rice of Tamil Nadu which is small in size but does not mix evenly with the curries. Ground nut *poddie* (powdered groundnut, chilies and salt) is taken daily or when ground nuts are

available and is an important source of protein along with lentils and beans. People also enjoy eating older crops

Meals are prepared using wood and fire stove on the floor. Meals are normally taken on a mat on the floor. For those in the fields, a family member may bring them food as lunch, or else it might be prepared right then and there in the field during a short break. Even a simple *rasam* (tamarind broth) can be prepared in the fields without any fire. Some of the younger people have the habit of tying a little piece of jaggery into their clothes and consuming this around 10am to prevent hunger pain. For this, however, they may get a severe scolding by their parents who view it as a sign that they are getting inadequate foods in their home. After lunch, work is resumed until 630 pm and at night someone has to remain at or return to the farming fields to light a fire or use a flashlight to scare-off wild animals who forage the crops.

Most families do not produce enough rice or vegetables to provide for the entire year and they must regularly go to the market. However, they are only selling general provisions such as biscuits, cosmetics, soaps, and some grains. For major items people must travel between 15-30 km to the nearest town. In the past people used to share the produce they grew such as onions or brinjals but nowadays such sharing seems to have diminished.

Many of the Vaddera *Dalitbahujan* men drink a diluted country liquor in the evenings. This is prepared from the bark of the *Thumma* tree which is boiled and fermented for three to four days and then sold at the high rate of Rs. 30 per glass. Normally men will dilute with water to drink for a longer time or, time to save money. The practice of local brewing is prohibited by the state, police raid local breweries and

destroy them. Smoking beedis and cheroot was common even among the teenagers and many women chew prepared betel.

6.6. RELIGION

The Vadderas practice Hinduism, Islam, Buddhism and Christianity, and some are atheists as well. Throughout the region the Vedic gods and goddesses such as Ganesh, Saraswati, Laxmi and so on are not worshipped to any great extent and many people in their 30s and 40s reported never hearing about these dieties until into their 20s. As Buchanan indicated that the Wudders practiced "…burial rather than cremation of the dead, a claim to being pure Sudras, and a Vashnava faith" (Buchanan quoted in Kerr, 2006, p. 97). Vaddera *Dalitbahujans* who follow Hinduism in this region only remotely identify with the mainstream Vedic gods such as Ganesh or Saraswati. They also worship their own local deities and most villages are protected by a local goddess who originated from a living woman long ago.

There are numerous religious festivals in the village and are well attended by all the villagers of all ages. In villages, married and elderly people tend to congregate in the temple for communal singing and worship, while the younger and unmarried cohort tend to congregate in groups wherever is convenient for song and spirited dance. Both men and women have a large repertoire of songs and stories that can engage a crowd of young and old for hours.

In more recent years Christianity and Islam have vied to capture Vaddera souls. Many have switched to Islam or Buddhism because of the mistreatment by the caste Hindus (see Ilaiah, 2007). In one case, a person converted to Christianity because the

various blessings he had asked for from the Gods and Goddesses did not happen and he became disenchanted. The Christian missionaries have been actively involved in conversion through schools. This initiative has not gone on without resistance, however, and many Vadderas have removed their children from such schools when they saw that the main aim was toward cultural assimilation and re-indoctrination (e.g., Sreberny-Mohannadi, 1997). Others send their children to state schools, a system that parallels the residential school system in Canada; in other words, where one's identity is called into question and modified in sometimes (Dei, 2012; Howard, 2014; Regan & Alfred, 2011; Smith, 2001). I attended these sorts of schools far from home and with upper caste teachers who enforced strict discipline.

6.7. HEALTH AND ILLNESS

Many people live to their 60s but by this time, after a long life of farming, and ground/quarry work, and stone cutting, people often suffer from many diffuse bodily aches and pains in the legs, shoulders and trunk. One elderly man commented "As one elderly man noted "you have to stand up on barefoot on burning rocks. When you work your body from head-to-toe burns badly in pain". A typical cause of death among younger populations is tuberculosis, viral fever and malarial, dengue fevers, the latter two of which are most prevalent during the rainy season and due to poor sanitation facilities, which are not well maintained by the upper caste dominated Panchayat.

Local shops sell pharmaceutical items or "little tablets" such as paracetamol, chloroquine and primaquine. The owners obviously lack the credentials to administer such tablets, but nonetheless it is of some help to the villagers to have access to these

items in times of need and avoid the longer trip to the big towns. There are no buses at night.

In Chittoor, people often complain, healthcare workers are very "irregular" and do not provide many services, and as discussed in Chapter Four, this region as with other *Dalitbahujans*, share a strong skepticism about doctors, and feeling that they are judgmental of their culture. It is with a lot of worry that people finally resort to the towns to access biomedicine. The Primary Health Centres (PHC) also suffers from a lack of adequate infrastructure, lack of medical equipment and lack of availability and its main activity is the distribution of polio vaccines. While the consultations are free, people are reluctant to access them unless necessary. For minor health issues, such as cuts, loose motions, cough and cold, people will opt for local "traditional" medicine first. This normally consists of herbs that are used across the region by *Dalitbahujans* that I outlined in Chapter Five. For surgery, people must usually travel to a big town and normally pay for 50% of the services while the Ministry of Health and Welfare will pay the other 50%, however, the associated hardship of travel for rural *Dalitbahujans* is evidenced among Vadderas as I noted in the extended case study in Chapter Four.

If local and biomedical treatment fails, the next step may be to seek the village deities and ask for help. For *Dalitbahujans*, the female deities in particular are seen as powerful sources of healing power if one makes an oath to her and seeks her blessings. People can also go into trance and dance away illness as a way of restoring balance caused by malevolent forces and depending on the time of year, in some communities men take on the guise of Gangamma goddesses and there is a good deal drumming and of dancing (Fleukiger, 2013) as a way of restoring balance in social and metaphysical life

(Horden & Hsu, 2013) and overcoming social crises also happens in other socieites (see, for example Lüdtke, 2008). There is then, a significant degree of theodicy; that is a strong belief that evil exists and measures must be taken to contain it. For example many vadderas believe that ghosts and angry spirits can cause illness, and/or the jealousy (Bhagvat, 1968; Farrer, 2016; Robbins & Dewar, 2011) and to avoid this people won't praise others openly. As one man in his 50s noted "the worst thing you can do is to praise a person's crop or their child", as it brings on the evil eye.

6.8. Conclusions

In this chapter I have attempted to present the past and present situation of the Vaddera *Dalitbahujans* as an extended case study. While people in Chittor have been semi-settled for almost five decades, they have never been able to become fully sedentary due to inhabiting land that is unsuited to agriculture as well as dry climate with scarcity of water. In a way, this has protected them from the economic changes that were to come with the intensification of capitalist penetration embarked upon by the state over the past decade. But this is only temporary and like, the majority of agriculturalists in India, these farmers feel ongoing pressure to compete in the global market by selling their labour (Singh, 2017) in India and as far as the Middle East. Youth must, out of economic necessity and with a considerable amount of willingness, migrate away for wage work in a pattern not all that much different from their parents and grandparent's generation who also sold their labour.

Vaddera *Dalitbahujans* in rural areas are thus part proletarianised and part peasantrised and the degree to which each identity is manifested depends on the household itself and the extent to which it relies on agricultural or wage work for

livelihood. There are very few members of this caste who have managed to get a formal education. Those who attain an education, tend to never permanently return to the region in my observations and experience. These mainly male educated migrants are still bound by cultural expectations such as sending home remittances to parents, as well as navigating through the contradictory cultural expectations of parents who desire cross cousin marriage and new norms of town and city; something evidenced among the Indian diaspora as well (For review, see Daniel, 1996; Ferglund, 1999; Grønseth, 2001; Grønseth & Oakley, 2007; Oakley & Jayapalan, 2005; Sarhadi – Raj, 2003).

In a context of intense capitalist penetration combined with neo-liberal ideology, the state determines who is subsumed within its imagined borders and who are perpetual outsiders. Who, in short are the main recipients of the terror of deep neo-liberalism (Giroux, 2005; Gledhill, 2005) and economic liberalism that I explored in Chapter Three. This process involves an intensification of the processes of alienation which reverberates on a daily basis through the social relations permeating the *Culture of Capitalism* (Robbins, 2008). As an essential feature of industrial capitalism (Miller, 1997, p. 68) alienation is a process whereby 'appropriation appears as *estrangement*, as *alienation*; and *alienation* appears as *appropriation*, estrangement as true *admission to citizenship'* (Marx & Engels, 1988) Coming from peasantries to occupy an intense working class experiences in the urban context sometimes leads to extreme cognitive dissonance, in large part due to the intense and thoroughly foreign experiences of alienation (e.g., Appadurai, 1996). Speaking to those who have migrated one does get a sense that they have experienced extreme alienation and yet they also have a strong character and personality that enables to survive this process without compromising too much. How

future generations fare in the new context is moot. Will they learn the hundreds of ancient moral stories and songs that have given the past generations the ability to persevere under harsh conditions? What *will* the content of their stories be in the future? In the west, it is the very lack of such cultural material, the perpetuation of a *poverty of culture* that has made it so easy for the US-based media to fill the gap and rob the youth of a strong personality and identity (e.g., Golding & Harris, 1997). This, in turn, makes it easier to convert the youth into a collective whose identity is based on conspicuous consumption of goods to fill that terrible spiritual gap, that haunting alienation that exists in the absence of strong collective identity and culture (Giroux, 2005; Robbins, 2008).

CHAPTER 7 WHOSE REALITY COUNTS?

We belong to this country and we love the soil. We fight for 80 percent of the poor population in the country…In this country, when poor people talk about basic food, you people fire at them, you have fired at the Muslims. When a women talks about women's empowerment, you say that all five fingers are different. Women should behave like Sita (agneepariksha). In this country, there is democracy which provides equality to all be it a student, clerk, labour, farmer or even Ambani or Adani[vii]*. All have equal rights. Yet, when we talk about women's empowerment, they say that we are ruining the Indian culture. But we want to ruin exploitation culture, racism culture, caste culture…Who will decide what is justice? When there was casteism, Dalits were not allowed to enter the temple and it was considered justice. When the Britishers were here, dogs and Indians were not allowed in a restaurant, this was also considered justice... But your justice does not accommodate our justice. We will not agree to your 'justice', to your 'freedom'. We will agree to the justice the day when every human being gets their constitutional rights.(My translation*[7](JNUTA, 2017).

Jawaharlal Nehru University Students Union President Kanhaiya Kumar speech in support of actions after the suicide of RohithVemula. Kumar was charged for sedition for his speech. February 2016 (JNU Teachers Association 2017; Datta 2016)

Kanhaiya Kumar and Rohith Vemula were both students whose experiences in the education system culminated in their activism to challenge the longstanding challenges and oppression that have been experienced by *Dalitbahujans.* In 2016, Rohith committed suicide as a form of protest to highlight the discrimination faced by *Dalitbahujan* scholars in India. There were national strikes through Indian universities and institutions came to halt in weeks. Kumar's speech at JNU University in Delhi, underscored the need for unity and a thirst for egalitarianism and equity.

Education is a key social determinant of health in the information based economy and for human beings education has always been a key element in shaping identity as well (Baru, 2009; Baru & Nundy, 2008; Bhupal & Sam, 2012; Hasan & Bagde, 2013;

[7]I rendered this translation from the speech which was delivered in Hindi.

Kapilashrami & Baru, 2018; Shankar et al., 2013; Singh, 2011). Yet for many *Dalitbahujans* accessing education has been a negative experience (Roy, 2014) as it has been for indigenous communities around the world who are subjected to the "western archive" of knowledge and power (Smith, 2012). We may also be able to speak of an "Indian archive" of knowledge that is equally damaging and in need of critique. In this chapter I explore some of the issues related to the recent influx of *Dalitbahujans* into anthropology programs in recent years and ask: Will the entry of lower caste people into anthropology lead to a progressive and emancipatory pedagogy and might it lead to the inclusion of movements, histories, cultures and sensibilities that have previously been excluded? (Lancet, 2014). Will it contribute to "…asking how social science can and will advance the interests of the poor and excluded in the face of insistent pressures for it to contribute to the dominant ideological concerns of policy-makers and those who fund academic research" (Ross & Price, 2005, p. ix)? Will this lead to developing education contexts that foster inclusiveness and are open to different epistemologies and ontologies? In other words will it lead to decolonizing educational contexts? Or will those in power continue to regulate knowledge and retain the dominant colonial relations and understandings of the world? The case of Aboriginal peoples in Canadian schools, and the shame and forms of humiliation heaped on them for their very being within educational systems, to "take the Indian out of the child" (Alfred and Corntassel, 2005; Smith, 2001) is highly relevant to Dalitbahujans who pass through the education systems. This case study also bears on how we understand the relationship between anthropologists and anthropology concerning India, as well as the use and abuse of indigenous knowledge in the context of globally accelerating dynamics of corporatism

and militarism. Writing against power as a form of activism (Scheper-Hughes, 1994), and here I begin to explore some of these issues and hint at some emergent patterns. I also suggest that developing Critical Pedagogy could be a way to deal with some of the issues faced by *Dalitbahujan* scholars as I will explore.

7.1. CRITICAL PEDAGOGY

An important beginning for the critical pedagogical approaches is the writings of Paulo Freire (2000) who found it difficult to get education due to his class background in Brazil (see Dieter et al., 2002:83) which was one of great poverty during the military dictatorship in Brazil. In his book *Pedagogy of the Oppressed*, he characterized education as a political act and argued that teachers and students should become aware of the political structures surrounding education. He also advocated that education could be a force of social change for students to liberate themselves from oppression. For Freire, students were not just empty vessels to be filled with a teacher's knowledge and advocated student-teacher dualism: the idea that there should be an exchange of knowledge between teacher and the student rather than a one way student-teacher dichotomy (2000).

His approach was taken up by scores of post-colonial scholars, like Smith (2012) and even some in the 'west'. An important scholar in this regard is Henry Giroux, a strong advocate of critical pedagogy who applied Freire's philosophy to US and Canada. Through his writing, he has strongly opposed the neoliberal agenda in the field of education (2010), the marginalization of students, and the importance of reconfiguring education as an instrument of social change. He is also critical of the corporatization and

“disneyfication” of culture and advocates for a new and open culture of education, or a public education (see Dieter et al., 2002, p. 87 and 89).

Pedagogical practices in India could benefit a great deal by taking up the teaching of Freire, Smith and Giroux and making education a liberating experience. Ilaiah, a Dalitbahujan scholar, in his writing has contributed to this although has not alluded to critical pedagogy explicitly, his writings on the humiliations faced by Dalitbahujans and pointing to the ways their contributions should be honoured is important. B. R. Ambedkar, the pioneering Dalit intellectual, and many more, are examples of critical scholars whose teachings and writings advocated anti-hegemonic, anti-colonial and anti-caste approaches to teaching. Ambedkar’s (2001) writing led to a wide mobilization of oppressed and other marginalized people which culminated in reservations being created at universities to facilitate the entry of low caste students. More recently, this movement also culminated in the creation of Centres for Inclusions and Exclusion throughout Indian central universes whose aim is to both study and empower Dalitbahujan scholars.

Both Freire and Giroux stressed the importance of revealing and countering aspects of the hidden curriculum, such as teaching conformity to the dominant power structures and internalizing stigmatized representations. Drawing on this approach in regard tocurricula in Indian social sciences is much needed at this time. Emerging scholars can use the knowledge to generate their own and their communities’ liberation as they proceed through their educational process and make impotant contribution to the social change.

7.2. Representations as knowledge regulation

As noted earlier, the British colonial state was obsessed with regulating knowledge in the public domain (Dirks, 1997). This included the oppressive divide and rule tactics of caste and class ascriptions that was imposed upon the country and its people. Bhadra notes that during the Moghul era, for example, the caste system was in decline only to be revitalized by the British colonial Raj as a form of divide and rule (1989, p. 340). Indeed, the caste system was an "extremely useful device for the British rulers and their Indian compradors in 'reconstituting' Indian society and in maintaining their rule" (Bhadra, 1989, p. 343).

Delige asks: what is the difference between a scheduled caste person and an agricultural worker of a non-scheduled caste? According to Delige, both earn similar wages and live in similar conditions, moreover, the government usually gives non-scheduled communities fewer opportunities to improve their lot. "All other things being equal, then, it is often (but not always) better to be a member of a scheduled caste", he writes (2011, p. 56; e.g., Gupta, 2005). Here Delige is trying to express the idea that consolidating caste (into SC and OBC) has put a wedge into forming class unification and he states that "A system that is based on the recognition of caste cannot lead to its suppression" (2011, p. 57; see Chemmencheri, 2015; Zene, 2013) and then proceeds to problematize *Dalitbahujan* achievements by attacking the leaders of the movement as elites who asserted their rights at a time when there were very few problems (2011, p. 57). He further claims to have spoken with a number of Dalits who noted that "untouchability" was a thing of the past" and most people were more concerned with

economic matters (2011, p. 43; Chemmencheri, 2015; Devakumar, 2007; Zene, 2013). It is a rather odd claim because as Ambedkar pointed out long ago economic issues have always been at the fore of peoples' concerns. It may well be that members of a scheduled caste are insulated from time to time, writes Delige, but their lives will not be radically altered by these insults (2011, p. 56). Could it be an ethnographic misreading as Waquant did with Anderson in not understanding the role of "decency" as a value to people living in the ghetto in Philadelphia? (2002, p. 1541; Chemmencheri, 2015; Zene, 2013). Or is it a case of what Nancy Scheper-Hughes indicates ignores "...the reality of the very real borders that confront and oppress our "anthropological subjects" (1995, p. 417).

Temples represent one such border, where the Brahmins are the "gatekeepers" (Anderson, 2002, p. 1541) that in some places continue to prohibit Dalitbahujans from entering. Temples continue to be a space of resistance not only to gain physical access, but also to decide on which language is spoken during rituals. In the recent South Indian past, there have been riots and skirmishes in some temples about *Dalitbahujan* people wanting their Dravidian languages spoken instead of Sanskrit, the mother of Indo-European languages, and considered a foreign language brought by the invading Aryans a millennium ago. Would Delige, and ethnographer, consider not being allowed to speak one's language in their holy place or not being admitted due to *Dalitbahujan* status as an insult? If not, then what are such things? How do people feel about them? What are the nuances and symbols of the insults? What are the local words and their content? How would Delige measure the damage on one's life of such an insult? (Ortner, 2006; Tilche & Simpson, 2017). What evidence does he have to establish that these insults do no

damage to people's lives? All these questions beg for an ethnographic response but we do not get any from Delige In the same volume, more rather etic perspectives' are echoed by Guilmoto who refers to India's "weird caste and class nomenclatures..." (2011, p. 25); "weird" being somewhat culturally insensitive to those who refer to themselves by those same words (Ortner, 2006; Tilche & Simpson, 2017). Both these authors, who also happen to be foreign, tend to confirm Visvananthan's contention that such scholars are probably sensitive people yet fail to "…mediate on her or his location or particular mode of intellectual production" (2006, p. 240) as elites (see Smith, 2012).

Delige goes on in his writing to assert that "for people at the bottom in Indian society" it is not so much caste that matters but rather the mechanization of agriculture and that no amount of affirmative action will help these workers (2011, p. 52). This is an odd statement because "the people on the bottom" tend mainly to be *Dalitbahujan* and the people on top, tend to be higher caste. This is a subtle critique of the reservation system in India whereby the constitution protects *Dalits*, scheduled Tribes and OBC people in terms of quotas for seats in universities, jobs and so on (Bird-David, 2014, p. 140). At the same time, objectionable and offensive is Delige's use of the term "inbreeding" to characterise caste endogamy (2011, p. 48), an etic term has also cropped up in articles about my particular case, *Vaddera* (stone cutters), as well as my religion in regard to the practice of cross cousin marriage (Fortier, 2009; Simpson, 2011).

7.3. SOME CHALLENGES IN RELATION TO CASTE AND CLASS: THE NEW ACADEMIC LANDSCAPE

People who previously had been the subject of study the people introduced above, are now themselves doing ethnography, and even more than this, are part of a massive social movement for change (Ortner, 2006, p. 140-144; Valk, 2010). The question (Ortner, 2006) “Who is (belongs to, represents) anthropology…?” is salient. Visvanathan argues that there is an intellectual vacuum in India where by “..a whole generation has either retired or turned diasporic...” (2006, p. 25). The majority of the diasporic anthropologists tend to be drawn from the upper castes. Visvanathan continues to note that “(and) few exemplars or new paradigms...” exist (2006, p. 25). His cynicism may have been understandable for the time he was writing in 2006, but since then the vast majority of social science books published about India by Indian scholars were written by Brahmins who were educated with a thoroughly European curriculum (Basu, 1994; Gosh, 2008, p. 78; Kalla & Joshi, 2004; Ortner, 2006). But this is slowly changing, and as more Anthropological and Sociological works are published by *Dalitbahujan* scholars like Ilaiah, Sukumar, and Jangam and along with this, these scholars books become drawn on in university courses instead of books by foreign or high caste authors. Moreover, there are many more students and faculty represented in social science departments and the vacuum noted by Visvanathan is quickly being filled by a new generation of Indian anthropologists who are creating a new standard and content for social science work on India, who are not from high caste or class backgrounds, and who had long been excluded from the social sciences and/or were the subject of study (see Smith, 2012, p. 29)[8]. This happened as a result of political assertion and organizational

[8]After completing the degree, positions exist in the Anthropological Survey of India, IGNOU (a huge distance education university), as lecturers at the university level as well. Some graduates also go on to train for the civil service with the anthropology degree as their entry qualification.

activities by these groups to develop state quotas for jobs and resources as well as state institutions which must accept a standard proportion 30% Scheduled Caste, Scheduled Tribes and 27% *Other Backward Classes*. Several years ago, this effort was strengthened thorough the implementation of *Centres for Exclusion and Inclusion* throughout state universities which have also become an important source of employment (Deshpande, 2009, 2014). The aim of these centers was create new positions that would be occupied by *Dalitbahujans* since many existing positions continue to be filled by upper caste people in their mind or late career stage. Secondly, they spurred a plethora of research by these groups on their own communities and from a perspective that had previously been excluded (Baumgartner, 2004, p. 2011-2104; Fortier, 2009; Simpson, 2011; Smith, 2012, p. 28; Visvanathan, 2006). Scheper-Hughes might refer to it on "...anthropology of the really real, in which the stakes are high, values are certain...we need more, now than ever, to locate and train indigenous local anthropologists and organic intellectuals to work with us and to help us redefine and transform ourselves and our vexed craft" (1995, p. 417; seeTilche & Simpson, 2017). Scheper-Hughes call is salient for India given the speed with which lives are changing and the need to preserve the knowledge of ST, SC and OBC earlier generations (see Ortner, 2006; Smith, 2012, p. 158). These were the histories, culture and practices that no one took much notice of other than to ridicule or stigmatize them. But most universities still have the older generation of social scientists who, in spite of the diversity, in spite of the social mobilizations, even in spite of the state's endorsement of Centres of Inclusions and Exclusion, maintain what Smith has referred to as an elitist "toxic environment" (1999, p. 129; Borooah, 2012; Tilak, 2013) or "research through imperial eyes" (Smith, 2012, p. 56) and the *Dalitbahujan* research

scholars have to contend with this or perhaps, be accommodated in it and work against their own interests. This new ethnic and academic landscape of India will be one of challenges that would need to be addressed and taken up in ethnographic research.

7.4. THE NEED FOR CRITICAL PEDAGOGY

While a casual glance from the 'western' or 'North American" scholarly gaze, an "Indian" might be just that: "an Indian". But hierarchies from which that scholar emerged is often erased or worse still, unrecognizable as salient. The Indian anthropologists who 'make it' are those who already have been converted to the norms of the west, whose discourse and expressions might also conform to the generalized western categories of reality and so on. Ilaiah has referred to as this the theft of one's history and an erasure of identity (Ilaiah, 2009, p. 4), noting that:

> "Many foreigners and Brahmanic scholars of India have attempted to undertake such a journey in an attempt to unravel the complexities of its many social, cultural and civilizational systems, but have ultimately failed to understand the essence of India. Studying the Indian society involves living through its processes which also involves a close study of its multiple castes that have constructed myriad forms of suppression and hegemonic relationships" (Ilaiah, 2009, p. xxvii).

From my experiences as a young scholar, and through observations and conversations with colleagues and friends, there is a sense of discontent in these practices and a desire for change. As more students from the marginalized backgrounds enter the academy, they are forming new questions and viewing old scholarly work with a new viewpoint. Kancha Ilaiah, who is not trained as an anthropologist but whose writing is an example of this trend, notes with a lot of enthusiasm that: "the makers of history themselves should become writers of the history so that the interaction between history

and the makers of history is a living interaction" (2004, p. 227). He is really imploring to become sensitized to the subaltern contributions. Indian social science still remains steeped in the "civilizing" mission of Hinduism and modernity, particularly with respect to *Dalitbahujans*, exemplified by the preoccupation with notions of "hygiene" and the need for the higher castes to teach the morality of cleanliness (Chakraborty & Bose, 2008; Dwivedi & Sharma, 2007).

The perennial use of Vedic-centric materials in university courses still goes on today throughout India (Gledhill, 2009; Kurtz, 2009). While studying anthropology in a state university, land my *Dalitbahujan* classmates took anthropology courses in which we had to read texts about our own communities and sometimes we reflected on the content of these texts. Some of the books and articles characterized our peoples as having low morals and being prone to crime and alcoholism, for example. These stereotypes were used for decades by the British to humiliate, shame and ultimately to govern *Dalitbahujan* peoples (Pathy, 1989) and continues today as form of stigmatization (Prakash & Raju, 2010). Some of the works are old, yet still used in many social science and science-based curricula in India.

Another stream that I alluded to previously was on the prevalence of 'cross cousin marriage' among some *Dalitbahujans*. This practice seems to be a small obsession among some scholars, some of them Physical Anthropologists, interested in genes with a concern about presumed lack of genetic fitness due to the practice of endogamy/cross-cousin marriage (Reddy, Reddy & Reddy, 2007). Scholars interested in this phenomenon conclude that the social-cultural practice, which they refer to, as "inbreeding" – is maladaptive a theme with a long tradition (Bittles, 2002; Centerwall,

1965; Centerwall & Centerwall, 1966; Centerwall, Savarinathan, Mohan, Booshanam, & Zachariah, 1969). Malhotra (1994) noted that from a genetic point of view the practice leads to an increase in infant mortality due to the prevalence of a recessive gene (Bhasin, 2006; Chantia, 2008; Crawford, Reddy, Martinez-Laso, Mack, & Erlich, 2001; Reddy, 1984; Reddy 1992). Some authors prefer to use the term "consanguinity" (Sinclair, 1972), or use it in the title but revert back to "inbreeding" in the text (Rao, Inbaraj, & Jesudian, 1972). Among the significant corpus of texts, Alstrom's (1970) postulation that:

'In certain social groups in India, reasonably high degrees of inbreeding have existed for centuries. Reliable data are lacking concerning the 'historical evidence' for the same conditions existing in South India 2000 years ago. Because of the uncertain hypothetical conditions, it is somewhat rash to conclude that the practice of con-sanguineous marriages in India should have resulted in an appreciable reduction in the incidence of hereditary recessive defects and diseases'(Alström, Nordlund, Persson, Harding & Ljungqvist, 1984; cited by Rao & Narayan, 1976, p. 29).

The imposition of the stigmatized and morally laden term "inbreeding" completely ignores the idea that kinship is a social construction in all human societies and that you can't escape the fact that the words, whether spoken or written, have deep and variable meanings and different link to the senses as well (Horden & Hsu, 2013; Keane, 2015) When presented this information as part of our 'education', or confronting it in public domain, these depictions can be rather humiliating for people who were born and raised on cultural norms of preferred cross cousin marriage (Trautmann, 1981). We are faced with our meanings and values being erased, contorted (see King, 2002) and stigmatized as shameful when the another part of our training focuses on the salience of emic meanings (Neidel, 2016; Oosten, 2005; Pike, 1967; Tambiah, 1990). Moreover, as Behal and Linden, (2006) pointed out that, marriage choice plays a crucial role in the formation and decay of social

classes. Endogamy, the custom forbidding marriage outside of one's perceived 'group', is thus central to many *Dalitbahujans* social history. But these kind of social nuances might escape the reader of the 'scientific' journals in which these articles are published yet in the public view, *Dalitbahujan* social practices are rendered as evolutionarily "unfit" and "maladaptive", or with the case of the term "inbreeding" just plain morally wrong.

The "problem" with cross cousin marriage, as the scholars note, is that it 'may' lead to increases in "infant mortality as noted above. Yet as much as the authors completely embrace an etic point of view (Jardine, 2004), they also entirely ignore colonial and post-colonial processes that have led to extreme poverty among *Dalitbahujans* that would have a direct relationship to increases in infant mortality, high maternal mortality rates (Gangolli & Gaitonde, 2005) or a delay in intellectual development (sometimes referred to in the literature as 'mental retardation' (Rao & Narayanan, 1976). In particular, families in great debt are under nutritional strain as they must either sell their subsistence crops to repay loans or find a way to earn wages. I take issues with these studies as they do not consider cultural and environmental factors such as poor nutritional status due to grinding poverty among some sectors of this caste that is being faced by most farmers today (Sainath, 2008). In particular, families in great debt are put under nutritional strain as they must either sell their subsistence crop for money to repay loans or must find a way to earn wages to pay. Either way, nutrition and health are compromised, and this would certainly impact patterns of infant mortality. Perhaps the genetic-based and ultimately biomedical audience for whom these articles were written are not concerned about cultural meanings in such communities but more about expanding the lucrative biotech sector in the state and across India (see, for example, Frew et al., 2007).

These depictions, and the scholars who write them does not go unnoticed. Students in India spend considerable time reflecting on, sometimes joking about and laughing-off[9], and sometimes through their political involvements in student organizations on campuses. For example, although there is a quota system in place for *Dalitbahujans*, it doesn't always work out as it should. In response to this, student unions often organize large demonstrations in front of the administration buildings and sometimes they are successful in forcing the administration to review their procedures.

I have also personally experienced the humiliating feeling of being a *Dalitbahujan* student in a class instructed by upper caste faculty who assigned readings about my own community in which we were depicted as thieves, unhygienic, stigmatized meat eaters, drunkards, inbreeders and other stigmatized stereotypes (Rao, 1990, p. 151). These are also the lasting stereotypes (Agrawal, 2016) experienced by people from denotified tribes that are in common circulation and almost 'common sense' for some. In sharing discussions with anthropology friends and colleagues over the past decade during my studies, the majority of my *Dalitbahujan* friends have had similar humiliating experiences regarding their educational experiences and have had to employ various strategies in order to survive these stereotypes and practices (e.g., Deshingkar & Start, 2003, p. 3). Why was this imposed upon us as a form of education? No critique of the materials was forthcoming and that was presented as if they were simply social facts. A Critical Pedagogical approach would be the antidote for these situations and experiences.

[9]Keith Basso`s *Portraits of the Whiteman* was a creative ethnographic exploration of the discursive methods of dealing with racism and colonialism and about how the Western Apache countered it through jokes. I think that a similar book could be written about *Dalitbahujans* and their discursive strategies in resisting their marginalisation.

This thesis foreshadows my hope that young *Dalitbahujan* scholars won't have to experience the same humiliations that many of us survived; and that this is a very formidable and difficult hope to come to fruition, I am very much aware. That there is still so much work to be done to contribute to the public imagination in India and abroad where Dalitbahujans study and live, that they may be imbued with, as Max Haiven put it, a "...radical spirit of commonality, intentionality, passion, and hope fundamentally predicated on the reinvention, restoration, and defence of public spaces, common understandings, and shared ambitions" (2007, p. 90). The challenge for emergent young scholars will be to determine precisely how they will position themselves in relation to empire-building projects of the future and fortify the public imagination (Giroux, 2005) of an egalitarian society (Ilaiah, 2009); something that doctoral candidate, Rohith Vemula, who I wrote about at the beginning of this chapter, was trying to work toward.

Rohith's mother was SC, and his father OBC Vaddera. His mother was a seamstress, and his father was a security guard. Rohith had a strong sense of class consciousness as he posted his father's security guard uniform and his mother's seamstress table on Facebook not long before he died as a social commentary of people who survived on scarce resources and a sense of the social value of their labour. After his death his father noted:

"See we (Vadderas) are stone-cutters…I am not kidding, this is what we all (Vadderas) do real life. I worked in stone cutting and spread stone logs in Piduguraalla, Guntur. This is hard tool (showing his arm) which I used to break stones and I can tell you …that's power of Vaddera caste. That's what we are. I dreamt that he would be with my rocky hill son but I lost him".

Rohith's death unified the student movement along marginalized lines even more although arguably there were also efforts to divide *Dalitbahujans* as well. In a way,

Rohith as a student of the social sciences and also an activist underscores Davis-Floyd's sentiment that"I am a better activist because I am an anthropologist, and can therefore take the broader view, explain the other side, and make the invisible seen" (2011, p. 8). Rohith was one of many young *Dalitbahujan* scholars to enter the social sciences in the past decade as Indian education, for all its faults, made efforts to bring more *Dalitbahujans* into university level studies and beyond this, into jobs. This inclusion of formerly marginalized castes in Indian academic institutions might possibly open up the possibility of developing a path out of empire, but it would seem that these paths are littered with a number of obstacles. The *Dalitbahujan* student unification movement is one such example to overcome through collective action, the "shared culture of disappointment"(Jeffrey & Young, 2012, p. 639) but more needs to be done.

I am an Anthropologist born and raised in a stone cutting community, have studied Anthropology in four Indian institutions, travelled and spent time with colleagues and countless others all over the country. I have pointed out the issues that *Dalitbahujan* students and junior colleagues often face in Social Sciences in terms of their own training and the materials that they are forced to read to 'become' a social scientist. In order to hint at patterns, I have included some preliminary quantitative data to highlight the situation. In 2015, I gathered available data on the caste of full time anthropology faculty working in USA, Canada, and the UK and large research institutions, such as Indian state universities. The data points to an over representation of higher castes and fewer *Dalitbahujans* and Muslims.I was unable to gather information on other backgrounds such as Christian, Buddhist and so on and nor did I include the private Indian colleges or

the new Institutes of Technology. While this data can only hint at patterns, it does seem worthy of future investigation.

FIGURE 16 FACULTY BY CASTE IN MAJOR UNIVERSITIES IN THE WEST

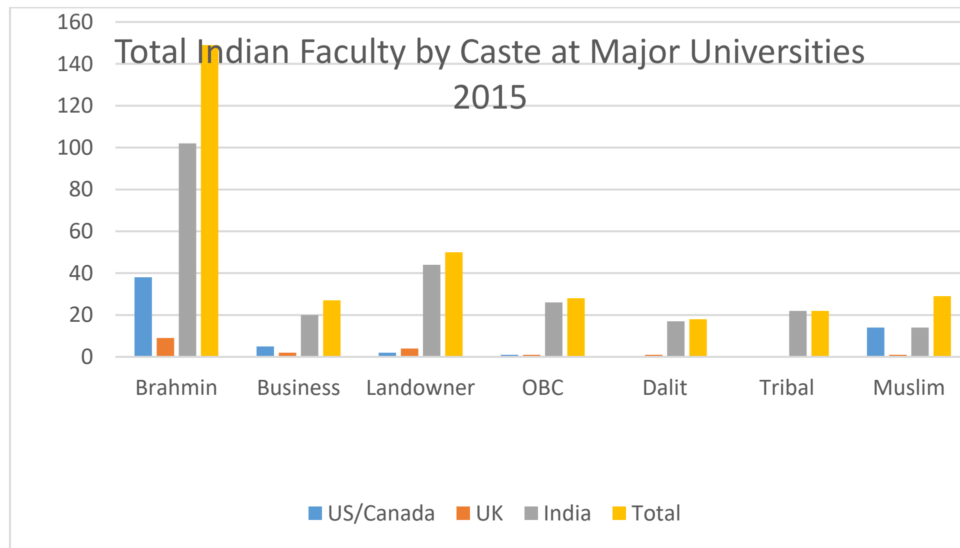
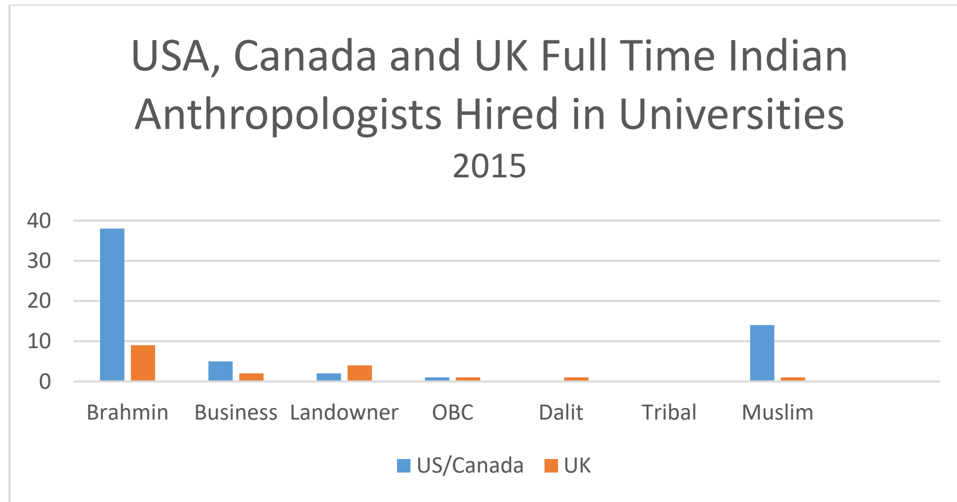


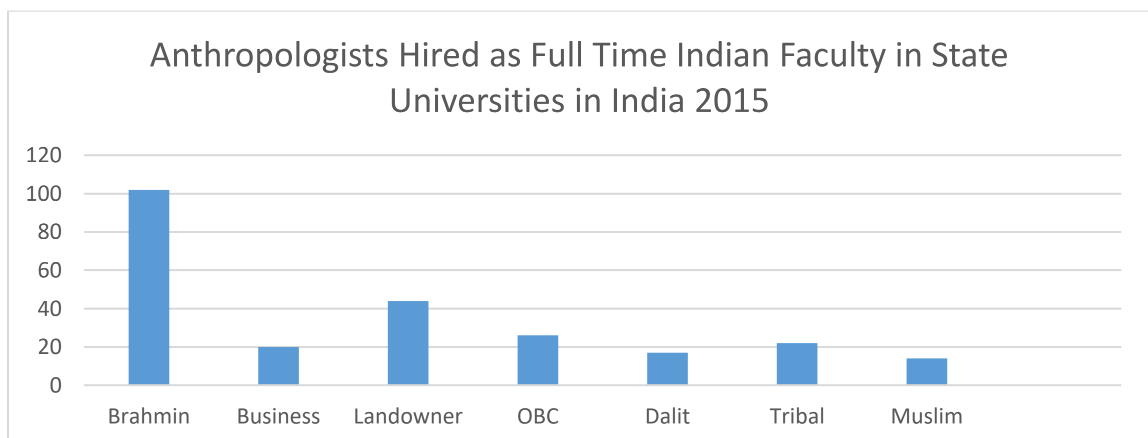
Figure 17 below depicts the overrepresentation of high caste anthropologists employed as full time faculty in USA, Canada and the UK. I will briefly explain the data country by country below the Table.

FIGURE 17 ANTHROPOLOGISTS HIRED IN MAJOR UNIVERSITIES IN THE WEST



In the UK, I included 25 universities having graduate and research programs. There were no Dalitbahujan professors in UK universities that I could identity, however, there were a few faculties having Landlord and Merchant caste origins. Universities in United States have a number offully specialized programs in South Asia. Brahmin (29) and foreign origin (31) faculty members tend to dominate the programs. There is some representation found in case of Muslim (10) and Landlord caste (2) backgrounds.

FIGURE 18 ANTHROPOLOGISTS HIRED IN MAJOR UNIVERSITIES IN INDIA



The Anthropology curriculum of India is dominated by upper caste scholars which is, again, part of the colonial traditions inherited. For instance, Calcutta, Madras and Bombay presidencies have employed a range of British and French Social Anthropologists who became founders of Anthropology departments. MN Srinivas and Vernier Elwin, Hamendorf and Radcliff-Brown, WHR Rivers contributed to colonial anthropology in the Indian Subcontinent and this in other words, became a part of the contemporary anthropology knowledge, state and governance practices to study *Dalitbahujan* communities by upper caste and foreign scholars. This further reflects the faculty tendencies in Indian universities wherein there is still an under-representation- of *Dalitbahujan* anthropologists: OBC (26), SC (17), ST (22). Since these populations are the majority of India this is need of correcting in the near future.

In this chapter I have explored education of *Dalitbahujans*. I have pointed out that education is an important social determinant of health and the ways that education has been experienced by many Dalitbahujans is that it has impacted their sense of wellness due to forms of humiliation that are reproduced by elite scholars. I have also examined how *Dalitbahujans* have been characterized in some of the scholarly literature arguing that these too have been imbued with conceptions that stigmatize people or capture their reality in etic ways of understanding that don't match emic viewpoints. I have also noted that social exclusion has been the rule for *Dalitbahujans* and this came to head in 2016 with the suicide of scholar RohithVemula, PhD Candidate. His action culminated with mass student mobilizations across the nation and a call for social justice, and equality. While realizing that there are a multitude of challenges ahead for Dalitbahujan scholars to overcome, it is my hope that my dissertation will also underscore the need for justice,

equality and increasing sensitivity toward marginalized *Dalitbahujans* in India and in the Diaspora. In the next chapter, Chapter Eight, I will conclude the dissertation.

CHAPTER 8 CONCLUSION

In this thesis I have explored how colonialism, post colonialism and capitalism have impacted the health and wellness of *Dalitbahujans*. I have also explored the ways they have experienced these forces and how they have also developed an emmergent self-consciousness about their situation and forged forward with new hopes.

In Chapter One I provided an introduction tothe topic and Chapter Two explored the methods I used in the thesis including content analysis, different types of interviews, Cultural Consensus Modeling, and auto-ethnography. These methods complimented the overarching methodology which drew upon a decolonizing approach combined with the extended case study method and autpoethnography. In Chapter Three, I also explored some of the challenges of doing studies in South India and the difficulties of using the Cultural Consensus Method technique in South India. While it is an incredibly valueable method to understand efficacious beliefs around health concepts and practices, it is time consuming to develop, implement and analyze. Moreoever, it is advisable to focus in on one or two plants or illnesses rather than taking a broad approach.

In Chapter Three I contended that colonialism, capitalism and post colonialism created ripe contexts for ill health among *Dalitbahujans* and poor Indians in general. In India, biomedicine colluded with capitalism and the public health systems as an antidote to colonialism that was realized in other post-colonial nations was not realized in India. India's focus on biomedicine and post-Nerhuvian science led to biomedicine and scientific progress to be seen as important to nation building but it brought few benefits to *Dalitbahujans* of United Andhra Pradesh. In fact, AP became viewed as a biotech hub (e.g., Yalamala, 2013), for genetic therapies, clinical trials GMO crops with SEZs and so

on. For *Dalitbahujans*, chronic sickness like persistent fevers and other health issues inevitably leads them to biomedicine and when it does they are received by hostile health personnel who have little understanding or appreciation of *Dalitbahujan* beliefs as I explored in Chapter Four.

Chapter Four explored the reality facing many Dalitbahujans, using the extended case study method, of lack of public health services in rural areas. Likewise, when people find the need to draw on biomedicine available far from their villages, they are met with contempt, anger and value judgements of the healthcare personelle. I argued in this chapter that public healthcare toward Dalitbahujans needs to be decolonized. Healthcare workers serving Dalitbahujans need to be educated to understand and value Dalitbahujan health aetiolgies so as to render the services more culturally sensitive and more efficacious.

In Chapter Five I explored some of the plant-based techniques of building and maintaining health by exploring the views of Dalitbahujan healers. I presented the results of Cultural Consensus Modelling; an anthropological method that leads to the creation of a quantitative database about health beliefs and practices. In addition to using the yes/no questions, I incorporated some open ended questions to flesh-out some of the beliefs and break up the monotony asking hundreds of yes/no questions. One of the findings as a result of the CCM interviews was also that some of the healers' knowledge was not considered public and in that spirit, I only shared those aspects that the healers agreed were acceptable to share. Certain plant techniques and beliefs involving black magic are guarded and not considered topics for public sharing or discussion. Developing the CCM tool was extremely time consuming to develop, administer, transcribe and analyse but

yielded interesting results and I called on other *Dalitbahujan* anthropologists to try this method out on their own and possibly move beyond health beliefs toward other important topics involving Dalitbahujans. I also noted an interest to further nuance the CCM questionnaire and to narrow the focus in future studies.

In Chapter Six I focused on the Vaddera *Dalitbahujans* of Chitoor, and explored the political economy of the region, and explored some of the realities facing them in the neoliberal era such as land loss, wage work migration, and their roots as Denotified Tribes. This chapter incorporated some autoethnography as I come from that background.

Leading from this, in Chapter Eight I explored some of the ways that Dalitbahujans have been characterized in the peer reviewed literature and the regulation of knowledge about them. I emphasized the rise of *Dalitbahujan* scholars and the challenges they face some of which came to a head with the death of RohithVemula. I also suggested that Critical pedagogy in Indian social sciences can provide a fruitful way forward and the pressing need to decolonize education for Dalitbahujans. As an organic intellectual, Rohith and other *Dalitbahujan* students organized to destroy the caste system entirely and to strive for egalitarianism (Ilaiah, 1989, p. vii). As had been accomplished elsewhere in the world, a "...path grounded in democracy, inclusivity, and the mutual recognition of dignity" (Cooper, 2009; Cooper, Sinha, Rael, & Newman, 2007; Khasnabish, 2010, p. 4). This vision of justice includes using the tools of anthropology to facilitate the cultivation of self-respect among *Dalitbahujans* who could then become an intellectual social force capable of bringing about revolutionary change as a gift to the entire society (see Chinnaiah, 2016; Graeber, 2004, p. 12; Ilaiah, 2009, p. xxvi; Jangam, 2017).

As has been urged for other nations, such as Canada, becoming politicized can be a positive for a nation's development (Staggenborg & Ramos,2012, p. 35; Staggenborg & Ramos, 2016) leading to an array of social movements ushering in positive social change, such as the protracted injustices of colonization (Staggenborg and Ramos 2012:3). It is my modest and heartfelt hope that this dissertation will plant a seed in the minds of *Dalitbahujans* scholars to consider how they seek to contest or ally with power in the coming years and how they position themselves in their writing. In short, to consider, 'whose reality counts?' As India plummets further into the chaos of capitalism and neoliberalism; as knowledge becomes devalued and people fall by the wayside far too often, the time is ripe to highlight and value *Dalitbahujan* lives and their contributions. There is an urgency to this given that economic and social change is taking place rapidly and as our elders pass away, and our youth, all too early, we lose knowledge and practice that can be beneficial to India and beyond.

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APPENDIX 1 CULTURAL CONSENSUS MODELLING

Interview schedule

Schedule No. [ ]

1. DETAILS OF THE RESPONDENT ప్రతివాదియొక్కవివరాలు

1.1. Code for Name ____

1.2. BIRTH PLACE (జన్మస్థానం)pseudonym:__ ____________________

CURENT TOWN/VILLAGE/CITY OF RESIDENCE
(ప్రస్తుతనివాసం)pseudonym:______________________________

1.3. Date of birth? పుట్టినతేది
-----/---/------ (D/M/Y)

1.4. Educational Qualification of the respondent: Illiterate: **1** Primary: **2** Middle: **3** High school: **4** Higher secondary: **5** Technical education: **6** Degree and above: 7
విద్యార్హత:నిరక్షరాస్యులు:1 ప్రాథమిక:2 మధ్యప్రాథమికోన్నత: 3 ఉన్నతపాఠశాల: 4 హయ్యర్సెకండరీ: 5
టెక్నికల్ఎడ్యుకేషన్: 6 డిగ్రీమరియుపైన: 7

1.5. Medium of Instruction: English – **1** Telugu – **2** Hindi –**3** Others_________________
బోధనమాధ్యమం: ఇంగ్లీషు-1 తెలుగు-2 హిందీ-3 ఇతరత్రా ______________________

1.6. Have you ever studied any course on healing? మీరుఏవైద్యముకోర్సునుఅభ్యసించారు?

1.7. Name of the Course కోర్సుయొక్కపేరు:

1.8. Marital status: Unmarried: **1** Married: **2** Widow: **3** Divorced: **4** Separated: **5**
వైవాహికస్థితి: పెళ్లికానివారు:1 వివాహితులు: 2 విధవ/ విధవరాలు: 3 విడాకులు: 4 విడిపోయినవారు:5

1.9.Type of family: Nuclear: **1** Joint: **2**

మీకుటుంబముఏరకం: న్యూక్లియర్కుటుంబం: 1 ఉమ్మడికుటుంబం: 2

1.10. Do you own any/anytype land? Grandfather's property: 1 Father's Property: 2 Own property: 3

మీకుఎవరిభూమిసంక్రమించింది? తాతగారిఆస్తి: 1 తండ్రిఆస్తి 2 సొంతఆస్తి: 3

1.11. How many children do you have? Male Children: 2 Female Children:

మీకుఎంతమందిపిల్లలుఉన్నారు?మగపిల్లలు: ఆడశిశువులు:

1.12.How many of them are healing or, the science of medicine and practicing it?

Male Children Known:_____ Practicing: _____

Female Children Known:_____ Practicing:_____

ఎంతమందిపిల్లలుఈవైద్యమునుఅభ్యాసంచేస్తున్నారు?

మగపిల్లలు: _____

ఆడశిశువులు: _____

1.13. How did they learn it?వారుఈవైద్యమునుఏవిధంగానేర్చుకున్నారు?

1.14. By Own interest/Influenced by you/hereditary knowledge/others మీరుప్రేరణచే, సొంతఆసక్తి/వంశపారంపర్యపరిజ్ఞానంప్రాబల్యంతోనా.

1.15. How long have you been practicing healing or, the science?ఎంతకాలంమీరుఈవైద్యమునులేదా,శాస్త్రమునుకొనసాగిస్తున్నారు/చేస్తున్నారు?

1.16. From whom did you learn?: Grand Father: 1 Father: 2 Friend: 3 /Guru: 4 Others:5
మీరుదీనినిఎవరిద్వారానేర్చుకున్నారు?తాత: 1 తండ్రి: 2 స్నేహితుడు: 3

గురువు: 4 ఇతరత్రా :5

1.17. How did you become interested in healing or, the science of *swantha vaidyamu* or *girijana vaidyam*?మీకుఈగిరిజనవైద్యమునునేర్చుకోవాలనిఏవిధంగాఅలోచనకల్గింది?

1.18. If any other family members have been practicing healing or the science of *girijana vaidyamu*? మీఇంటిలోఇంకాఎవరైనాఈగిరిజనవైద్యములేదా, సైన్సుప్రాక్టీసుచేస్తున్నారా?

If yes, whom. ఐతే, ఎవరు.

1.19. Are you practicing healing or, the science of *girijana vaidyamu* as your prime profession? మీరుఈవైద్యవృత్తినిలేదా,గిరిజనవైద్యమునుమీప్రధానవృత్తిగాకొనసాగిస్తున్నారా?

If Not. what is your occupation. కాకపోతే,మీవృత్తిఏమిటి?:

1.20. How do you define science? మీరుసైన్సునుఏవిధంగానిర్వచిస్తారు?

1.21. Do you consider healing or, the science of *girijana vaidyamu* as a Science? Yes:1 No: 2

మీరుగిరిజనవైద్యమునుఒకశాస్త్రంగాబావిస్తారా? అవును: 1 లేదు: 2

If yes, how do you define it. అవునుఐతే,మీరుఏవిదంగాదీనినినిర్వచిస్తారు

1.22. How the Indian society views healing or the science of *girijana vaidyamu*? బారతీయసమాజముఈగిరిజనవైద్యమునుఏకోణంలోచూస్తుంది?

1.23. When you were young, did many people talk about the practice of healing or, the science of *girijana vaidyamu*? Yes:1 No:2

మీయువతరంలోఅనేకమందిఈగిరిజనవైద్యమును,గిరిజనవైద్యముఅభ్యాసమునుగురించిమాట్లాడుకోనేవారా? అవును: 1 లేదు: 2

1.24. Have you found any changes in the *girijana vaidya* system? Yes: 1 No: 2

మీరుగిరిజనవైద్యములోఏయెమార్పులనుగమనించారు? అవును: 1 లేదు: 2

If yes, what are the changes అవునుఐతే,ఏమిమార్పులు.

2. DETAILS OF THE RESPONDENT'S FAMILY**ప్రతివాదియొక్కకుటుంబంయొక్కవివరాలు**

2.1. Family nameకుటుంబంపేరు:

2.2. Date of birth? -----/------/--------- (D/M/Y) Place of Birth జన్మస్థానం: పుట్టినతేది

2.3. Father's Educational qualification: Illiterate: 1 Primary: 2 Middle: 3 High school: 4 Higher secondary: 5 Technical education: 6 Degree and above: 7

తండ్రివిద్యార్హత: నిరక్షరాస్యులు:1 ప్రాథమిక:2 మధ్యప్రాథమికోన్నత: 3 ఉన్నతపాఠశాల: 4 హయ్యర్సెకండరీ: 5 టెక్నికల్ఎడ్యుకేషన్: 6 డిగ్రీమరియుపైన: 7

2.4. Did he study any course in Girijana vaidyamu Tribal Medicine? Yes: 1 No: 2

అతనుఈగిరిజనవైద్యములోఏదైనాకోర్సునుఅధ్యయనంచేసారా? అవును: 1 లేదు: 2

2.5. Name of the Course కోర్సుయొక్కపేరు: Place where studied ఎక్కడఅభ్యచించారు:

2.6. Occupation of your Parentsమీతల్లిదండ్రులుయొక్కవృత్తి:

2.7. Did they practice *natuVaidyam* or, ethno medicine? Yes: 1 No: 2

వారుఈగిరిజనవైద్యమునుసాధనచేసారా? అవును: 1 లేదు: 2

2.8. How did they practice *Natu Vaidyam*?:

వారుఈగిరిజనవైద్యమునుఏవిధంగాసాధనచేసారు?:

2.8.1. How did they treat cough?వారుఎలాదగ్గుకిచికిత్సచేసేవారు?

2.8.2. How did they treat fever? వారుఎలాజ్వరానికిచికిత్సచేసేవారు?

2.8.3. How did they treat burns? వారుకాలినగాయాలకుఎలాచికిత్సచేసేవారు?

2.8.4. How did they treat cuts? వారుచర్మంకోతలుకుఏవిధంగాచికిత్సచేసేవారు?

i. Insect bites? దోమకాటు

ii. Joint pain? కీళ్ళనొప్పులు

iii. Jaundice? కామెర్లు

iv. Head Ache? తలనొప్పి

2.9. Where did you/they get the raw material? ఎక్కడమీరు/వారుముడిపదార్థమునుసేకరిస్తారు?

2.10. How is the marketing of the products done? Free of cost: **1** Nominal charge: **2**

ఆఉత్పత్తులమార్కెటింగ్ఏవిధంగాచేయబడును? ఫ్రీ**:** 1 నామమాత్రపుఖర్చు: 2

2.11. Have you given any training on *Natu Vaidyam*? Yes: **1** No: **2**

మీరునాటువైద్యంలోఏమైనాశిక్షణఇచ్చారా? అవును: 1 లేదు: 2

If yes, whom do you train? అవునుఐతే, ఎవరికిశిక్షణఇస్తారు.

2.12. How many of them are trained till now? ఇంతవరకుఎంతమందికిశిక్షణఇచ్చారు?

3. HEALING ARTS

3.1. Have you ever seen any patients afflicted with s*annipatha* or *sanni* an Incurable, tertial would that care with diluvium, circulatory collapse and understood as complete disorder of all three humors? How do you treat it?

మీరుఇప్పటివరకుఒకతీరనిసన్నిపాతతోబాధపడుతున్నాఏరోగులునుచూసిన, ఇసుక,

బంకమట్టిమొదలగునవిరక్తప్రసరణవ్యవస్థపతనంఆరక్షణటెర్టయిల్చేస్తుందిమరియుఈమూడుహ్యూమర్స్పూర్తిరుగ్మతఅ

నిఅర్థం? మీరుచికిత్సచెయ్యాలి?

3.2. How do you treat Jaundice and Hepatitis(liver disease)?

మీరుపచ్చకామెర్లుమరియుకాలేయపువ్యాధులకుఏవిధంగాచికిత్సచేస్తారు?

3.3. In nature do all things have both good and bad qualities*?* Yes: 1 No: 2

ప్రకృతిలోఅన్నివిషయాలులోమంచిమరియుచెడులక్షణాలురెండుఉన్నాయిఅనిగుర్తిస్తారా.అవును: 1 లేదు: 2

3.4. What is *Kaya Kalpa*? కాయకల్ప/ప్రధానమూలికలు

(మీరుసర్వసాధారణంగాఏమెమిమూలికలను)అంటేఏమిటి?

3.5. Is the *Kaya Kalpa* treatment both for curing disease and prolonging the life span?

Yes: 1 No: 2

వ్యాధికినివారణగామరియుజీవితకాలంపొడిగించుకోవడానికికాయకల్పచికిత్సమూలమా? అవును: 1 లేదు: 2

3.6. What methods are prescribed by Vaidudu to prolong life?

వైద్యుడుఏపద్ధతులునుజీవితంపొడిగించేందుకుశూచిస్తారు?

3.6.1. Through Yoga *?* Yes: 1 No: 2

యోగాదీక్షద్వారా అవును: 1 లేదు: 2

3.6.2. Through conservation of sperm Yes: 1 No: 2

వీర్యకణాలుచేత అవును: 1 లేదు: 2

3.6.3. Through use of salt *uppu* Yes: 1 No: 2

ఉప్పుద్వారా అవును: 1 లేదు: 2

3.6.4. Through use of calcite powders Yes: 1 No: 2

కాల్సైటెపొడులద్వారా అవును: 1 లేదు: 2

3.6.5. Through use of rare herbs Yes: 1 No: 2

కనపడునటువంటివేర్లు అవును: 1 లేదు: 2

3.7. Which of the following plants are good for rejuvenation? పునర్యవ్వనముకోసంఉద్దేశించినవిఈక్రిందిమొక్కలలోఏవి?

3.7.1. ఉసిరికాయ (Indian goose berry) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.2.సరస్వతాకు (Hydrocotyle siapea) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.3. గుంత-కలగర (Eclipta Alba) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.4. చిన్నకలబంద (Indian aloes) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.5. మారేడుచెట్టు (root of Bale freze) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.6. నేలఉసిరిక (Phyllanthus niruri) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.7. భద్రతుంగముత్స్ (Nut grass) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.8. నేలతాడిగడ్డ, దుంప (Black Musale) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.9. తుంగగడ్డి (Nut Grass) *Cyperus rotundus* Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.10. పిల్లిగడ్డలు (Asparagus) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.11. కుమ్మరితీగ (Tinospora sinensis) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.12.పెన్నేరుగడ్డ (Withania Somnifera) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.13. పొన్నగంటికూరఆకులు (Alterananthera sessils) Yes: 1 No:2అవును: 1 లేదు: 2

3.7.14 నల్లకరక్కాయ (Chebulic Myrobalam) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.15. అల్లము (Ginger) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.16. ఎండినఅల్లము (Dry ginger) Yes:1 No: 2అవును: 1 లేదు: 2

3.7.17. సొరక్కాయ (Bottle guard) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.18. కరక్కాయ (Terminalia Chebula) Yes:1 No: 2అవును: 1 లేదు: 2

3.7.19. అటికమామిడి (Boer haevia diffuse) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.20. కొండవుచింత, ముల్లముష్టి (Solanum tilabatum) Yes: 1 No:2అవును:1 లేదు: 2

3.7.21. మదనగంటి, పొడనగంటికూర (Madanaganti) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.22. నిమ్మపండు (Lime fruit) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.23. తులసి (Holy basil) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.24. నక్కెరుగడ్డ (Caralluma stalagmifera) Yes: 1 No: 2అవును: 1 లేదు: 2

3.7.25 Any others ఇతరత్రా

3.8. Is *Bhadra-tunga-muste* the most effective plant in rejuvenation properties?Yes: 1 No: 2
భద్రతుంగ-ముత్స్మొక్కఅతిసమర్ధవంతమైనఔషధమా? అవును: 1 లేదు: 2

3.8.1. Is it good in treating Muduru *Daggu*TB? Yes: 1 No: 2
ఇది TB నినయంచేయడంలోమంచిదా? అవును: 1 లేదు: 2

3.8.2. Is it good in treating High fever? Yes: 1 No: 2
హైఫీవర్చికిత్సకుమంచిదా? అవును: 1 లేదు: 2

3.8.3. Is it good in treating spasmodic pains in uterus? Yes: 1 No: 2
అదిగర్భాశయంలోఈడ్పుతోకూడిననొప్పులచికిత్సలోమంచిదా? అవును: 1 లేదు: 2

3.8.4. As an *anti-pyretic* Yes: 1 No: 2
జ్వరతీవ్రతనుతగ్గించుస్నానము? అవును: 1 లేదు: 2

3.8.5. Any thing else? ఇతరత్రా.

3.9. What is *Kaya Kalpa Mooligai*? కాయకల్ప/ప్రధానమూలికలు
(మీరుసర్వసాధారణంగాఏమెమిమూలికలను)అంటేఏమిటి?

3.10. Is there a word for TB? Yes: 1 No: 2
TBకిమీభాషలోఏమైనాపదమువుందా? అవును: 1 లేదు: 2

3.11. Can it (TB) be treated with ghee and a*kkarakaram* (root of Anthem's Pyrethrum?) Yes: 1 No: 2

ఇదినెయ్యిమరియుఅక్కరకారంతోనయంచేయవచ్చునా? అవును: 1 లేదు: 2

3.12. How do you treat TB? మీరుఎలాTBకిచికిత్సచేస్తారు?

3.13. Do you use Indian Aloes? Yes: 1 No: 2

మీరుచిన్నకలబందనుఉపయోగిస్తారా? అవును: 1 లేదు: 2

3.13.1. Is it good for rejuvenation? Yes: 1 No: 2

ఇదిపునర్యవ్వనముకోసంమంచిదా? అవును: 1 లేదు: 2

3.13.2. Can it maintain youth? Yes: 1 No: 2

ఇదియవ్వనాన్నిపెంపొదిస్తుందా? అవును: 1 లేదు: 2

3.13.3. Is it good for eye disease? Yes: 1 No: 2

ఇదికంటిరోగానికిఉపయోగపడుతుందా. అవును: 1 లేదు: 2

3.13.4. It is food for hair growth? Yes: 1 No: 2

ఇదివెంట్రుకలపెరుగుదలకుఉపయోగించవచ్చా? అవును: 1 లేదు: 2

3.13.5. Do you know that it contains *vitamen-A*? Yes: 1 No: 2

ఇందులోవిటమిన్ A ఉన్నాయా? అవును: 1 లేదు: 2

3.14. Do you use Phyllanthus Niruli? Yes: 1 No: 2

మీరునేలఉసిరినిఉపయోగిస్తున్నారా? అవును: 1 లేదు: 2

3.14.1. Is it useful to treat *shukha vyadulu?* (Venereal diseases)? Yes: 1 No: 2ఇదిసుఖవ్యాధులుచికిత్సకోసంఉపయోగిస్తున్నారా?అవును: 1 లేదు: 2

3.14.2. Do people normally get urinary infection? Yes: 1 No: 2

ప్రజలకుసాధారణంగామూత్రవ్యాధులకుబలవుతుంటారా? అవును: 1 లేదు: 2

3.14.3. Is *Nela usiri* useful in treating urinary infection? Yes: 1 No: 2

మూత్రవ్యాధిచికిత్సకోసంనేలఉసిరినిఉపయోగిస్తున్నారా? అవును: 1 లేదు: 2

3.14.4. Is it a Kaya Kalpa herb? Yes: 1 No: 2

ఇదికాయకల్పమూలికమా అవును:1 లేదు: 2

3.14.5. Do you recommend it be eaten as a food? Yes: 1 No: 2

దీనినిఆహారంలోతీసుకోమనిశూచిస్తారా? అవును: 1 లేదు: 2

3.14.6. What else is it useful for? ఏఇతరత్రా,పేర్కొనండి. __________

3.15. Do you use *Vellarai*(c) to treat your patients? Yes: 1 No: 2

మీరుమీరోగులుకుచికిత్సచేయడానికిసరస్వతాకునుఉపయోగిస్తున్నారా? అవును: 1 లేదు: 2

3.15.1. Do you recommend it as a food? Yes: 1 No: 2

దేనినిఆహారంగాతీసుకోమనిచెబుతారా? అవును: 1 లేదు: 2

3.15.2. Is it a rejuvenating medicine Yes: 1 No: 2

ఇది*పునర్యవ్వనముకుమందా?* అవును: 1 లేదు: 2

3.15.3. Is it a kaya kalpa herb? Yes: 1 No: 2

ఇదికాయకల్పమూలికమా అవును: 1 లేదు: 2

3.16. Do you use Bale Tree*?* Yes:1 No:2

మీరుమారేడుచెట్టునుఉపయోగిస్తారా? అవును: 1 లేదు: 2

3.16.1. Which parts do you use? ఏయేభాగాలనుఉపయోగిస్తారు? Please specify పేర్కొనండి

____

3.16.2. What else is it useful for? ఇంకాదేనికైనాఉపయోగిస్తారా? Please specify_పేర్కొనండి

____

3.16.3. Does *maredu* give beauty to the body? Yes: 1 No: 2

ఇది*మారేడు*అందంగారావడానికివాడుతారా? అవును: 1 లేదు: 2

3.16.4. Does *maredu* give strength to the body? Yes: 1 No: 2

*మారేడు*నుబలమురావడానికివాడుతారా? అవును: 1 లేదు: 2

3.17. Do you useEclipta Alba to treat your patients? Yes: 1 No: 2

రోగాలునయంచేయడానికికరివేపాకునివాడుతారా? అవును: 1 లేదు: 2

3.17.1. Can it be taken in the food for treating sore throat? Yes: 1 No: 2

దీనినిగొంతువాపునుతగ్గించుటకోసంఆహారంలోతీసుకోమనిచెబుతారా. అవును: 1 లేదు: 2 3.17.2.

Is it good for treating cough? Yes: 1 No: 2
దీనినిదగ్గుజబ్బుకివాడుతారా? అవును: 1 లేదు: 2

3.17.3. Can it be taken in the food for treating jaundice? Yes: 1 No: 2

దీనినిపచ్చకామెర్లుకిఆహారంలోతీసుకోమనిచెబుతారా? అవును: 1 లేదు: 2

3.17.4. Is it good for treating leprosy? Yes: 1 No: 2

దీనినికుష్టువ్యాధికివాడుతారా? అవును: 1 లేదు: 2

3.17.5. Is it good for treating anemia *raktha heenatha*? Yes: 1 No: 2

దీనినిరక్తహీనతనునయంచేయడానికివాడుతారా? అవును: 1 లేదు: 2

3.17.6. Is it good for treating dropsy? Yes: 1 No: 2

దీనినిపిండములోనీరుపట్టుటకివాడుతారా? అవును: 1 లేదు: 2

3.17.7. Does it improve intelligence? Yes: 1 No: 2

దీనినితెలివిపెరగడానికివాడతారా? అవును: 1 లేదు: 2

3.17.8. Does it prevent premature graying of hair *narisina ventrukalu*? Yes:1 No: 2

దీనినివెంట్రుకలుతెల్లబడుటనునిరోదించడానికివాడతారా? అవును: 1 లేదు: 2

3.17.9. Are you aware that it was taxed during the British period? Yes:1 No:2బ్రిటీషుహయాంలోదీన్ని మీదపన్ను విధించదగిఉందనిమీకుతెలుసునా? అవును: 1 లేదు: 2

3.17.10. Are you aware that it was cultivated on a large scale during the British period? Yes: 1 No:2

బ్రిటీషుహయాంలోదీన్ని భారీస్థాయిలోసాగుచేయబడిఉందనిమీకుతెలుసునా?అవును: 1 లేదు: 2

3.17.11. Do you use *allamu* (Ginger) to treat your patients?
మీరుచికిత్సలుచేయడానికిఅల్లమునుఉపయోగిస్తున్నారా? Yes: 1 No: 2

3.17.12. Why it (ginger) is used to treat patients? ఇదిఎందుకు, ఏచికిత్సకుఉపయోగిస్తారు?

3.17.13. Is it a *Kaya Kalpa Mooligai*? Yes: 1 No: 2

కనుకఇదిఒకకాయకల్ప/ప్రధానమూలికలుగావున్నదా? అవును: 1 లేదు: 2

3.18. Do you use *vepa chettu* (Margosa) to treat your patients? Yes: 1 No: 2వేపచేట్టునుదేనికైనాఉపయోగిస్తున్నారా? అవును: 1 లేదు: 2

3.18.1. Do you consider it a "*Kaya Kalpa Molligai"?* Yes: 1 No: 2

ఇదికాయకల్పమూలిగాముగా/ప్రధానమూలికలుగావాడుతున్నారా? అవును: 1 లేదు: 2

3.19. Can the dry flowers *vepaaku* (Margosa) cure ulcers? Yes: 1 No: 2

ఎండినవేపాకులోపుళ్ళులేదా, తీటనునివారిన్చావచ్చునా? అవును: 1 లేదు: 2

3.20. Do you agree that the following diet shall be followed which on Kaya Kalpa Mooligai?
మీరుక్రిందిఆహారమునుకాయకల్పమూలిగాముగా/ప్రధానమూలికలుగాతీసుకుంటారా?

3.20.1. Asdic తపస్విపదిలమైన Yes:1 No: 2అవును:1 లేదు:2

3.20.2. Oil నూనెను Yes:1 No:2అవును: 1 లేదు: 2

3.20.3. Fish చేపలు Yes:1 No:2అవును: 1 లేదు: 2

3.20.4. Mutton గొర్రెమాంసము Yes:1 No:2అవును: 1 లేదు: 2

3.20.5. Calcium *calcium*విటమిన్స్ or కార్బోహైడ్రేట్లు Yes:1 No:2అవును:1 లేదు: 2

3.20.6. Try to consume more Bengal gram మరింతసెనగపప్పుతినేప్రయత్నించవచ్చు Yes:1 No:2 అవును: 1 లేదు: 2

3.20.7. Try to consume more Pepper మరింతమిరియాలుతినేప్రయత్నించవచ్చు
Yes: 1 No:2అవును: 1 లేదు: 2

3.20.8. Try to consume more Cumin seedsమరింతజీలకర్రతినేప్రయత్నించవచ్చు
Yes: 1 No: 2అవును: 1 లేదు: 2

3.20.9. Try to consume more Ghee మరింతనెయ్యితినేప్రయత్నించవచ్చు
Yes: 1 No: 2 అవును: 1 లేదు: 2

3.20.10. Try to consume more Curry leavesమరింతకొత్తిమీరతినేప్రయత్నించవచ్చు
Yes: 1 No: 2 అవును: 1 లేదు: 2

3.20.11. Try to consume more Lime మరిన్నినిమ్మపండ్లుతినేప్రయత్నించవచ్చు
Yes: 1 No: 2 అవును: 1 లేదు: 2

3.20.12. Try to consume more Green beans మరిన్నిఆకుపచ్చబీన్సునేప్రయత్నించవచ్చు
Yes: 1 No: 2అవును: 1 లేదు: 2

3.20.13. Any others, please specifyఏఇతరత్రా,పేర్కొనండి. ___________________)

3.21. Do you agree that the following plants increase sperm count?
మీరుఈక్రిందిమొక్కలలోఏవివీర్యకణాలసంఖ్యపెంచడానికిఉపయోగపడును?

3.21.1. సరస్వతాకు (Hydrocotyle asiatica) Yes: 1 No: 2అవును: 1 లేదు: 2

3.21. 2. పిల్లిగడ్డలు (Asparagus) Yes: 1 No: 2అవును: 1 లేదు: 2

3.21. 3. పెన్నేరుగడ్డ (Withania somnifesa) Yes: 1 No: 2అవును: 1 లేదు: 2

3.22. Do you agree that the Kaya Kalpa treatment is to help prolongation of life by keeping one free of degenerative diseases during old age so as to enjoy a full span of life?
Yes: 1 No: 2

మీరుకాయకల్పచికిత్స/ప్రధానమూలికలుజీవితంయొక్కపూర్తికాలంఆస్వాదించడానికిఅదేవిధంగా, పురాతనయుగంలోప్రమాదకరమైనవ్యాధులునుండిప్రజలనునిర్భయస్తులనుచేయడానికిసహాయంచేస్తుందనిఒప్పుకుంటారా?
అవును: 1 లేదు: 2

3.23. Do you agree that the malevolent spirits cause diseases by intruding into the patient's body?
Yes: 1 No: 2

మీరుదుష్టఆత్మలురోగియొక్కశరీరములోకిప్రవేశించివ్యాధులనుకలగజేస్తాయనిఒప్పుకుంటారా?
అవును: 1 లేదు: 2

3.24. How do you identify the person that the spirits entered into the patient's body?మీరుఆత్మలుఒకమనిషిశరీరంలోకిప్రవేశించివున్నాయని, ఆవ్యక్తినిఎలాగుర్తించగలరు?

3.25. How do you treat its causes?మీరుదీనికారణాలుకుఎలాచికిత్సచేయగలరు?

3.26. Do you believe that use of chemicals and fertilizers would bring weakness and new diseases? Yes : 1 No: 2

మీరురసాయనాలుమరియుఎరువులు,బలహీనతనుమరియుకొత్తవ్యాధులునుకలగజేస్తాయనినమ్ముతారా?
అవును: 1 లేదు: 2

3.27. Do these chemical fertilizers decline or, decrease efficiency of the human organic system?
Yes:1 No : 2

ఈరసాయనఎరువులుక్షీణించిడులేదామానవులసేంద్రియవ్యవస్థయొక్కసామర్థ్యాన్నితగ్గిస్తాయనినమ్ముతారా?
అవును: 1 లేదు: 2

3.28. If yes, can you talk more about it? అవునుఅయితే,దానిగురించిమాట్లాడగలరా?

3.29. What were the major differences between older generations to the new generations in their foods?వారిఆహారాలలోనికొత్తతరాల,పాతతరాల మధ్య ప్రధాన తేడాలు ఏమిటి?

3.30. Do you agree that the older generations are less prone to the diseases than the new generation? Yes: 1 No : 2

మీరుపాతతరాలు,కొత్తతరానికన్నా తక్కువరకాలవ్యాధులకుగురయ్యేఅవకాశాలుఉన్నాయనిఅంగీకరిస్తున్నారా?
అవును: 1 లేదు: 2

3.30.1. If yes, in what ways?అవునుఅయితే,దానిగురించిమాట్లాడగలరా.

3.31. What are the major rainy season diseases specify? ప్రధానవర్షాకాలపువ్యాధులనుపేర్కొనండి?

3.32. How many types of diseases in this region on the basis of duration?కాలపరిమితిఆధారంగాఎన్నిరకాలైనవ్యాధులుఈప్రాంతంలోవస్తున్నాయి?

3.33. Do you agree that natural causes the contamination of water, air, food, high temperature, infections, weather, and heredity would cause to diseases? Yes: 1 No: 2

మీరుసహజంగానీరు,గాలి,ఆహారం,అధికఉష్ణోగ్రత,

అంటువ్యాధులు,వాతావరణం,వంశపారంపర్యకలుషితంవ్యాధులకుకారణమౌతుందిఅనిఅంగీకరిస్తున్నారా?
అవును: 1 లేదు: 2

3.34. Do you agree that disease Malaria is due to the mosquito bite *Domakatu*? Yes: 1 No: 2మీరుమలేరియావ్యాధిదోమకాటువలనసంభవిస్తుందనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2

3.35. How do you treat Malaria? మీరుమలేరియాకుఎలాచికిత్సచేస్తారు?

3.36. Does the contamination water lead to the loose motions and fever? Yes: 1 No: 2

నీటికాలుష్యంవిరేచనాలకుమరియుజ్వరానికిదారితీస్తుందనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2

3.37. Is the juice of bark of *gaanuga* tree mixed with pepper and rock salt given to the patient thrice a day for stomachache? Yes: 1 No:2

ఒకకడుపునొప్పికోసంరోజుకిమూడుసార్లు,రోగికిమిరియాలు,రాతిఉప్పుమరియుగానుగచెట్టుబెరడురసంకలిపిఇస్తారా?
అవును: 1 లేదు: 2

3.38. How do you treat *potti noppi* (another variety of stomachache)
ఎలామీరుపొత్తినొప్పినిఎలాచికిత్సచేస్తారు?

3.39. Do you agree that following paste mixed of ingredients of used for the jaundice *Kaamerlu*?
Yes:1 No:2

మీరుకామెర్లుకోసంఉపయోగించేపదార్థాలమిశ్రమపేస్ట్క్రిందిపేర్కొనబడినఉదాహరణలతోఅంగీకరిస్తున్నారా?

అవును: 1 లేదు: 2

3.39.1. Roots of wild creeper కుమ్మరితీగవేర్లు Yes:1 No:2అవును:1 లేదు: 2

3.39.2. Tuber of *thamarachettu*థామరచెట్టుబెరడు Yes: 1 No:2అవును: 1 లేదు: 2

3.40. How do you treat another type of jaundice *ubbu kaamerlu?*మీరుమరొకరకంఉబ్బుకామెర్లుకిఎలాచికిత్సచేస్తారు?

3.41. Do you prescribe a paste of mixture of the bark of *gummadi* with jaggery *bellam* for caugh*?*

Yes:1 No:2

మీరుబెల్లంమరియుగుమ్మడిబెరడుతోచేసినమిశ్రమమునుసూచిస్తారా? అవును: 1 లేదు: 2

3.42. Do you inform the patient not to eat curd*,* buttermilk and guava during the cough treatment?

Yes: 1 No: 2

మీచికిత్సలోదగ్గుతెరవచ్చినరోగికిపెరుగు,జామ,మజ్జిగతినమని,తెలియజెప్పారా?అవును: 1 లేదు: 2

3.43.Do you use the paste of bark of *thungadumpa* (a tuber) along with rock salt and water for vomiting*?* Yes: 1 No:2

మీరువాంతికిరాక్ఉప్పు, నీరుమరియుతుంగదుంపబెరడుయొక్కపేస్టున్ఉపయోగిస్తున్నారా?

అవును: 1 లేదు: 2

3.44. How do you treat loose motions *virochanalu?* మీరువిరేచనాలకుఎలాచికిత్సచేస్తారు?

3.45. Can you treat epilepsy*?* Yes:1 No:2

మీరుమూర్ఛకిచికిత్సచేస్తున్నారా? అవును: 1 లేదు: 2

3.46. Do you prescribe the grinded paste of *bambaala marri*, *peddapaala* and roots of *paatala garedu* and *nalla usarika* for epilepsy? Yes:1 No:2

మీరుమూర్ఛకోసంబంబాలమర్రి, పెద్దపాల, పాతలగరెడుయొక్కమూలాలు,

మరియునైలఉసిరికకలిపిదంచినముద్దనుసూచిస్తారా?

అవును: 1 లేదు: 2

3.47. How do you treat the skin diseases*?*మీరుచర్మవ్యాధులకుఎలాచికిత్సచేస్తారు?

3.48. Are you treating the leg-hands fractures *kaallu chethulu iragadam*? Yes: 1 No:2

మీరుకాళ్ళుమరియుచేతులువిరగినదానికిచికిత్సచేస్తున్నారా? అవును: 1 లేదు: 2

3.49. Are the following ingredients used in the grinded mixture paste?
మీరుక్రిందిపదార్థాలమిశ్రమముద్దనుఉపయోగిస్తున్నారా?

3.49.1. Use of bark of castor tree *amudham* అముదముచెట్టుయొక్కబెరడునుఉపయోగించడం

Yes: 1 No:2అవును: 1 లేదు: 2

3.49.2. Use of bark of *naramamidi* నరమామిడియొక్కబెరడునుఉపయోగించడం.Yes:1 No:2అవును: 1 లేదు: 2

3.50. Is the effective treatment for leech bites the paste of leaves of *jerri kura* for leech bites *jalaga kutadam?* Yes:1 No:2

జలగగాట్లుకోసంజెర్రీకురాఆకులుపేస్ట్సమర్థవంతమైనచికిత్సగాఉంటుందా?అవును: 1 లేదు: 2

3.51. Do you apply the juice of beedi leaves or *lanka pogaaku* on leech bites spot?Yes:1 No:2

జలగకుట్టినస్పాట్లోమీరుబీడీఆకులులేక,లంకపొగాకురసంరుద్దుతారా?అవును: 1 లేదు: 2

3.52. Is the mixture of powder of curry leaves *karivepaku* and honey for asthma *ayasam or dhammu?* Yes: 1 No:2

ఆస్తమాకోసంకరివేపాకుపొడిమరియుతేనెమిశ్రమమునురుద్దుతారా? అవును: 1 లేదు: 2

3.53. Can you identify the TB *muduru dhaggu* ? Yes: 1 No:2

మీరుTBనిగుర్తించగలరా? అవును: 1 లేదు: 2

3.54. *Is* the mixture of black pepper, dry tamarind, garlic taking with chanted matras effective for the TB? Yes:1 No:2

TB కోసంబ్లాక్పెప్పర్,పాతచింతపండు, వెల్లుల్లితీసుకోవడం,స్తుతించటంప్రభావవంతమైనచికిత్సగాచెప్పవచ్చునా.

అవును: 1 లేదు: 2

3.55. Is chewing the root of *nuduru* plant good for toothache *pannu noppi?* Yes:1 No:2

పంటినొప్పికినుదురుమొక్కమంచిరూట్నమలడంమంచిదా? అవును: 1 లేదు: 2

3.56. Is the *galidonka* leaves juice good for the injuries or healing of the wound? Yes:1 No:2

గాయం, గాయాలుకుగాలిడొంకఆకులురసంమంచిదా? అవును: 1 లేదు: 2

3.57. Is the *nuala kura* leaves crushed and putting on the forehead good for nasal congestion and headache? Yes:1 No:2

ముక్కులోనిరొంపమరియుతలనొప్పికోసం, నౌలకురాపొడిచేసి,నుదిటిమీదపెట్టటంమంచిదా?

అవును: 1 లేదు: 2

3.58. Is a daily intake of honeyin warm water in the morning on an empty stomach an effective treatment for constipation? Yes: 1 No: 2

ఖాళీకడుపుతో,మలబద్ధకంకుసమర్థవంతమైనచికిత్సగాఉదయంవెచ్చనినీటిలోతేనె,రోజువారీఆహారంలోతీసుకోవడంమంచిదా? అవును: 1 లేదు: 2

3.59. Is a decoction of tender *karakkayi* (Chebulic Myrobalan) taken at bedtime an effective treatment? Yes: 1 No: 2

ఒకకాచివడపోసినకరక్కాయిసారమునిద్రవేళలోతీసుకోవడంసమర్థవంతమైనచికిత్సగాఉంటుందా?

అవును: 1 లేదు: 2

3.60. Is *draksha* (Vitis vinifera) taken as a decoction or infusion an effective Treatment for children? Yes: 1 No: 2

ద్రాక్షకషాయంపిల్లలకుఒకసమర్థవంతమైనచికిత్సగాఉండునా? అవును: 1 లేదు: 2

3.61. Is malakardari oil prepared by adding powdered tender karakkai with castor an effective treatment for prolonged constipation? Yes: 1 No: 2

సుదీర్ఘమలబద్ధకంకు,మలకర్దారిఆయిల్,టెండర్కరక్కాయిపొడిమరియుక్యాస్టర్ఆయిల్తోజోడించడంసమర్థవంతమైనచికిత్సగాఉండునా? అవును: 1 లేదు: 2

3.61.1. If this fails is an enema necessary? Yes: 1 No:
2ఈఉంటేఒకనేత్రంకావలసినంతవిఫలమయితే. అవును: 1 లేదు: 2

3.62. Can milk *paalu*, honey *tene* and rock salt solution be used in the enema? Yes:1 No: 2

నేత్రసమస్యకిపాలు,తేనెమరియురాతిఉప్పుటానిక్కువాడవచ్చునా? అవును: 1 లేదు: 2

3.63. Is diarrhea *bedulu* a Pitha disease? Yes: 1 No: 2

విరేచనాలునుఒకపిథావ్యాధిగాచెబుతారా? అవును: 1 లేదు: 2

3.63.1. Is Chukka Milages choornam an effective treatment for diarrhea? Yes:1 No: 2

చుక్కామిలెజెస్విరేచనాలుకోసంసమర్థవంతమైనచికిత్సగాచెబుతారా?అవును:1 లేదు:2

3.63.2. Should it be taken with honey? Yes: 1 No: 2

దానినితేనెతోతీసుకొనవలసివుందా? అవును:1 లేదు:2

3.64. Is *bokkenaku* (Lippia Nodiflor Mich) leaves along with ajwan prepares Kudineer taken 4-5 times a day an effective treatment for dysentery*?* Yes: 1 No: 2

*బొక్కెనాకు*4-5 సార్లువిరేచనాలుకొరకు,ఐజ్వాన్తీసుకున్నత్రాగునీటిలోసిద్ధంతోపాటువదిలేస్తుందిసమర్థవంతమైనచికిత్స?

అవును: 1 లేదు: 2

3.65. Is powdered nutmegs *jaaji kaaya podi*taken with honey 3-4 times a day a good treatment for dysentery? Yes: 1 No: 2

జాజికాయలపొడిని, తేనెతోరోజుకు3-4 సార్లువిరేచనాలుకొరకుతీసుకోమనిచెబుతారా? అవును:1 లేదు: 2

3.66. Is honey an ennapurnam for treatment of dysenteryan excellent anti-Inflammatory agent <u>*anti-inflammatory*</u>? Yes: 1 No: 2

జిగటవిరేచనాలకుతేనెఒకఅద్భుతమైనశోథనిరోధక,

యాంటీఇన్ఫ్లమేటరీశోథనిరోధకచికిత్సకోసంపనిచేస్తుందనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.67. Do you agree that e*ndina allamu* (dried ginger) is an effective anti-flatulent indigestion and anti-bacterial agent? Yes: 1 No: 2

మీరుపొడిఅల్లమునిఅజీర్ణముకు,ఒకసమర్థవంతమైనఏజెంట్గామరియుబాక్టీరియావ్యతిరేకంగాఉపయోగిస్తున్నారా?

అవును: 1 లేదు: 2

3.68. Do you agree that the 5 salts are effective in correcting the electrolyte balance in the body? Yes: 1 No: 2

మీరుఎగువ5లవణాలుశరీరంలోఎలక్ట్రోలైట్సంతులనంసరిదిద్దడంలోసమర్థవంతంగాపనిచేస్తాయనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.69. Do you agree that fermented curds are important in restoring intestinal flora? Yes: 1 No: 2

మీరుపులియబెట్టినపెరుగు,పేగువృక్షజాలంతిరిగిపునరుద్ధరించడంలోముఖ్యమైనవిఅనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.70. Do you agree that *thulasi* is an effective treatment for the common cold? Yes: 1 No: 2

మీరుతులసిజలుబుకొరకుఒకప్రభావవంతమైనచికిత్సయనిఒప్పుకుంటారా?అవును: 1 లేదు: 2

3.71. Do you agree that *tella gadda* or *vellulli* (Garlic) is an effective treatment for tonsillitis Yes: 1 No: 2

మీరువెల్లుల్లిటాన్సిల్స్కొరకుఒకసరైనచికిత్సఅనిఒప్పుకుంటారా?

(జిహ్వామూలమందువుండేవొకవిధమైనరెండుమాంసగ్రంధులు) అవును: 1 లేదు: 2

3.72. Do you make parts out of garlic and honey and apply it to the affected area? Yes:1 No:2

తెల్లగడ్డమరియుతేనెతొతయరుచేసినపేస్ట్ను దెబ్బతిన్నప్రాంతంలోకట్టుకడతారు.అవును:1 లేదు:2

3.73. Do you agree that garlic powder is an effective anti-bacterial? Yes: 1 No: 2

మీరువెల్లుల్లిపొడిఒకసమర్థవంతమైనబాక్టీరియావ్యతిరేకంగాఉంటుందిఅనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

3.74. Do you agree that honeyis an effective anti bacterial? Yes: 1 No: 2

మీరుతేనెఒకప్రభావవంతమైనయాంటీబాక్టీరియల్ఉంటుందిఅనిఒప్పుకుంటారా? అవును:1 లేదు:2 3.75. Do you agree that Doctura leaf juice is an effective treatment for non-specific ulcers? Yes: 1 No: 2

మీరుమునగాకురసం, నిర్దిష్టపుళ్ళుకొరకుఒకసరైనచికిత్సఅనిఒప్పుకుంటారా?అవును:1 లేదు: 2

3.76. Is *karakkayi* and Turmeric puts an effective treatment for sore fingers?
Yes: 1 No: 2కరక్కాయిమరియుపసుపు,వేళ్లపుపాపుకొరకుఒకప్రభావవంతమైనచికిత్సఅనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.77. Is *ellyppai nei* application effective for sore gingers? Yes: 1 No: 2

ఎల్లప్పైనెయ్యిఒకసరైనచికిత్సఅనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

3.78. Is Cessia alata paste an effective treatment for sore fingers? Yes: 1 No: 2

మద్రిచెట్టుపేస్టుఒకసరైనచికిత్సఅనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

3.79. Is Lawsonia alba an effective anti-fungal? Yes: 1 No: 2

గోరింటాకుఒకసమర్థవంతమైనవ్యతిరేకఫంగల్గాపనిచేస్తుందనిఒప్పుకుంటారా?అవును: 1 లేదు: 2

3.80. Is *thailam* (Sunoclon dactylon) preparation with coconut oil an effective treatment for allergic skin problems such as eczema? Yes: 1 No: 2

కొబ్బరినూనెతోచేసినథైలం,గజ్జి, అలెర్జీచర్మంసమస్యలకుఒకసరైనచికిత్సఅనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.81. Do you agree that drumstick leaves (Moringa oleifera) is effective in preventing any eye disorders? Yes: 1 No: 2

మీరుమునగఆకులుకంటిలోపములునునిరోధించడంలోఒకసరైనచికిత్సఅనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.82. Do you agree that Bolanum nigrum is an effective food item for preventing gigevitus? Yes: 1 No: 2

మీరుకామంచిచెట్టుచిగుళ్ళుపుండుపడుటను,చిగురువాపునునివారించడంలోఒకసమర్థవంతమైనఆహారపదార్థంఅనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

3.82.1. Is it a liver stimulant? Yes: 1 No: 2

ఇదిఒకకాలేయఉద్దీపనగాఉంది? అవును: 1 లేదు: 2

3.83. Is Eclipta alba good for liver tonic? Yes: 1 No: 2

గలగరచెట్టుకాలేయంటానిక్కోసంమంచిదిఅనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

3.84. Is Phyllanthus niruli a good liver tonic? Yes: 1 No: 2

నేలఉసిరిఒకమంచిలివర్టానిక్గాపనిచేస్తుందనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

3.85. Are these days affecting in regenerating liver cells? Yes: 1 No: 2

ఈరోజుల్లోకాలేయకణాలుపునరుత్పత్తిలోమార్పులువస్తున్నాయనిఒప్పుకుంటారా?అవును:1 లేదు:2

3.86. Is Porlutaca quardriti effective in preventing urinary disorders*?* Yes: 1 No: 2

పాలకూరమూత్రరుగ్మతలునునివారించడంలోమంచిగాపనిచేస్తుందనిభావిస్తున్నారా?అవును:1 లేదు:2

3.87. Are bittergourd a cluster beans good for diabetes? Yes: 1 No: 2

కాకరకాయగింజలుమధుమేహంనునివారించడంలోమంచిగాపనిచేస్తుందనిభావిస్తున్నారా?అవును: 1 లేదు: 2

3.88. Are radish and plantain skin helpful in hypertensive cordic-emitic? Yes: 1 No: 2

రక్తపోటు,భేదిమందుగాముల్లంగిమరియుఅరటిచెట్టుచర్మంసహాయకారిగావుండుననిభావిస్తున్నారా?

అవును: 1 లేదు: 2

3.89. Is Lemon an anti-emetic? Yes: 1 No: 2

*వాంతులనునిరోధించడంలో*నిమ్మకాయనిరోధకంగాపనిచేస్తుందనిభావిస్తున్నారా? అవును:1 లేదు:2

3.90. Is pomegranate an anti-emetic? Yes: 1 No: 2

దానిమ్మఒకవ్యతిరేకవాంతిమందుపనిచేస్తుందనిఅనిభావిస్తున్నారా. అవును: 1 లేదు: 2

3.91. Is tomato good for electrolote imbalance? Yes: 1 No: 2

*విద్యుత్ప్రవాహకలవణఅసమానత్వం,*అసమతుల్యతకొరకుటమోటోసహాయకారిగాఉంటుందిఅనిఅంగీకరిస్తున్నారా?

అవును: 1 లేదు: 2

3.92. Is orange good for electrolyte imbalance? Yes: 1 No: 2

అసమతుల్యతకొరకుఆరంజ్ప్రభావవంతంగా, సహాయకారిగాఉంటుందిఅనిఅంగీకరిస్తున్నారా?

అవును: 1 లేదు: 2

3.93. Is *jamun* an anti-diabetic? Yes: 1 No: 2

జామమధుమేహం వ్యతిరేకంగాఉంటుందిఅనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2 3.94.

Are dates anti-anemic? Yes: 1 No: 2

ఖర్జూరపండురక్తహీనతకువ్యతిరేకంగాపనిచేస్తుందనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2

3.95. Are grapes laxatives? Yes: 1 No: 2

ద్రాక్షను<u>భేదిమందు</u>గాభావిస్తున్నారా? అవును: 1 లేదు: 2

3.96. Are you aware about 108 kaya kalpa drugs? Yes: 1 No: 2

మీకు108కాయకల్పఔషధాల/ప్రధానమూలికలుగురించితెలుసా? అవును: 1 లేదు: 2

3.97. Do you agree that the proportion of the 3 doses "Vatha" "Pitha" and "Kapha" should be 1:1/2:1/4 respectively: Yes: 1 No: 2

మీరు 3మోతాదులో"వత్త" "ఫిథా " మరియు"కఫా" శాతంవరుసగా1:1/2:1/4ఉండాలిఅనిఒప్పుకుంటారా:
అవును: 1 లేదు: 2

3.98. Do you agree that the common cold *neer kovai* can be treated with? Yes: 1 No: 2
మీరుసాధారణజలుబును,నీర్కుతకఉపయోగించిచికిత్సచేయవచ్చునుఅనిఒప్పుకుంటారా?అవును: 1 లేదు: 2

3.98.1. Pepper juiceమిరియాలుజ్యూస్ Yes: 1 No: 2

3.98.2. Ginger juice అల్లంరసం Yes: 1 No: 2

3.99. Can Bronchitis be treated with -Adaladathoda vassica decotion (Adathoda Vasica).
Yes: 1 No: 2

శ్వాసనాళములవాపువ్యాధికిసన్నదుంపరాష్ట్రముతోచికిత్సచేయవచ్చునా? అవును: 1 లేదు: 2

3.100. Bark of Alpinia officinarumసన్నదుంపరాష్ట్రముచెక్కతోనా Yes:1 No: 2అవును:1 లేదు: 2

3.101. Roots of Alpinia officinarum సన్నదుంపరాష్ట్రము Yes:1 No:2అవును:1 లేదు: 2

3.102. Can fever be treated with *nelavemaa*mixed with cloves, cardamom in water?
Yes: 1 No: 2

జ్వరాన్నినీటిలోలవంగాలు, యాలకులు, నేలవేముమిశ్రమద్వారానయంచేయవచ్చునా?అవును: 1 లేదు: 2

3.103. *Thulasi decotion* (Ocimum sanctum) prepared with equal quantity of *miriyalu*
Yes: 1 No: 2

మిరియాలతోకలిపినతులసికసాయమునుఇవ్వడం అవును: 1 లేదు: 2

3.104. Is g*irimallika* paste (Phyllathus nire) an effective treatment for hepatitis *pachcha kamerlu*?
Yes: 1 No: 2

గిరిమల్లికపేస్ట్కాలేయపువ్యాధికొరకుసమర్థవంతంగాపనిచేస్తుందనిఒప్పుకుంటారా? అవును:1 లేదు:2

3.105. Is *galagara chettu* paste an effective tonic? Yes: 1 No:
2గలగరపేస్టెఒకప్రభావవంతమైనటానిక్గాపనిచేస్తుందనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

3.106. Is kovai ilai paste (Coccinia indica) *amudam chettu paste* (Ricinus communis) also effective? Yes: 1 No: 2

ఆముదపుచెట్టుపేస్ట్కూడాసమర్థవంతంగాపనిచేస్తుందనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2

3.107. Is athividayam powder *karpoorabenda, kasthoori benda* (Aconytum heterophylum Aconitum here) an effective treatment for diarrhea? Yes: 1 No: 2

అతివాసపొడి, డయేరియకుసమర్థవంతంగాపనిచేస్తుందనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2

3.108. Is poduthalai decoction *and* (Lippia nodiflo) an effective treatment for diarrhea?
Yes: 1 No: 2

నేలగురిడి, బొక్కెనాకుపేస్ట్, డయేరియకుసమర్థవంతంగాపనిచేస్తుందనిఅంగీకరిస్తున్నారా.అవును: 1 లేదు: 2

3.109. Is Mangusthan thel (Garcinia mangustana) decoction with Coriandrama sativum and cumin seeds an effective treatment for dysentery? Yes: 1 No: 2

దనియాలుమరియుజీలకర్రతోచేయబడినమంగుస్తన్థెల్డానిక్ఒకప్రభావంతమైనచికిత్సగాపనిచేస్తుందనితెలుసా?

అవును: 1 లేదు: 2

3.110. Is *jajikayi* powder (Muristica frager) an effective treatment for dysentery? Yes:1 No: 2

జాజికాయపొడివిరేచనాలుకొరకుఒకప్రభావవంతమైనచికిత్సగాపనిచేస్తుందనితెలుసా?అవును:1 లేదు: 2

3.111. Is *allamu paste* (Gingerer officinals)an effective treatment for headache? Yes:1 No: 2

అల్లము, శొంటితలనొప్పినినివారించడానికిసమర్థవంతంగాపనిచేస్తుందనిఒప్పుకుంటూరా?అవును:1లేదు:2

3.112. IsLeucas aspera leaves paste an effective treatment for headache? Yes: 1 No: 2

తుమ్మచెట్టుపేస్ట్(Leucasతోడుకొని) తలనొప్పినినివారించడంలోసమర్థవంతంగాపనిచేస్తుందనిఒప్పుకుంటూరా?

అవును: 1 లేదు: 2

3.113. Are *swasakudorai pills* prepared with *jilledi puvvu*(Colotropis gigantea) and *miriyalu* (Piper Nigrum) effective treatment for asthma? Yes: 1 No: 2

ఆస్తమాచికిత్సలో,జిల్లెడుపువ్వుమరియుమిరియాలుతోచేసినమాత్రలుఆస్తమాచికిత్సలోసమర్థవంతంగాపనిచేస్తాయనిఒప్పుకుంటూరా? అవును: 1 లేదు: 2

3.114. Is the inhalation of *umathai* leaves dried with *vediuppu*? Yes: 1 No: 2

ఉమ్మెత్తఆకులుఎండినవేడిప్పుతోపీల్చటంవలనతలనొప్పినినయంచేసుకొవచ్చుఅనిఅంగీకరిస్తారా?అవును: 1 లేదు: 2

3.115. Do you agree that the failure of the medicine is due to lack of knowledge in the selection of application of proper *anupanamis*? Yes: 1 No: 2

మీరుఔషధంవైఫల్యములకుసరైనచికిత్సలుఎంచుకొనుటలోపరిజ్ఞానంలేకపోవటంవంటికారణాలువుండుననిఅంగీకరిస్తారా?

అవును: 1 లేదు: 2

4.0 Sorcery and Witchcraft మాయలుమరియుమంత్రతంత్రాలు

4.1. How do you treat the Witchcraft *adavi gaali?*మీరుఅడవిగాలికిఎలాచికిత్సచేస్తారు?

4.2. Do you agree that enmity and jealousy among each other are causes for witchcraft? Yes: 1 No: 2

మీరుప్రతిఇతరులమధ్యశత్రుత్వంమరియుఅసూయ,చేతికుం, చెడిపి,

చేథబడిలకుకారణాలుగాఉన్నాయనిఒప్పుకుంటూరా?

అవును: 1 లేదు: 2

4.3. Do you know how to instigate evil spirits into the patient's body? Yes: 1 No: 2

మీరురోగియొక్కశరీరలోకిచెడునుప్రవేచింపచేయడంగురించిమీకుతెలుసా? అవును: 1 లేదు: 2

4.4. Can you list the symptoms of the victim, if possible?
వీలైతే,మీరుఈరకమైనబాధితునియొక్కలక్షణాలజాబితానువివరించండి?

4.5. Do you agree that attack by the withces kills the victim in a month if he/she is not consulted with the local healer? Yes: 1 No:2

మీరుఅతను/ఆమెస్థానికవైద్యురాలుతోసంప్రదించలేదంటేచేతబడిఒకమాసంలోబాధితుడునిచంపేస్తుందిఅనిఒప్పుకుంటారా? అవును: 1 లేదు: 2

4.6. Would you please explain how do you treat the *chedipi munda?*మీరుఎలాచేతబడిచికిత్సచేస్తారుదయచేసివివరించండి?

4.7. Do you agree that saltis a wonder medicine? Yes: 1 No: 2

మీరుఉప్పునుఒకఅద్భుతంఔషధంఅనిఅంగీకరిస్తున్నారా? అవును: 1 లేదు: 2

4.8. Is it correct that salt contains the following three salts? Yes: 1 No: 2

ఉప్పుఈక్రిందిమూడులవణాలునుకల్గియున్నదనిఅంగీకరిస్తున్నారా? అవును:1 లేదు: 2

4.8.1. Intee సాదారణఉప్పు Yes:1 No:2అవును: 1 లేదు: 2

4.8.2. *Ravi* Rock salt గోడ్డొప్పు Yes: 1 No:2అవును: 1 లేదు: 2

4.8.3. Others, specify. ఏఇతరత్రా,పేర్కొనండి_______________

4.9. Can you list the main differences between *Girijana/Natu* and Ayurveda?
మీరుగిరిజనవైద్యముమరియుఆయుర్వేదవైద్యములకుమధ్యప్రధానవ్యత్యాసాలనుపేర్కొనండి?

4.10. Are you aware of the gender specific diseases? Yes: 1 No:2

మీకులింగనిర్దిష్టవ్యాధులగురించితెలుసునా? అవును: 1 లేదు: 2

4.10.1. If yes, please list some? అవునుఐతే, పేర్కొనండి.

4.11. Do you agree that white dischargemight occur among women after the childbirth?
Yes:1 No:2

మీకుశిశుజననంఅనంతరంమహిళలలోతెల్లబట్టసంభవిస్తాయిఅనిఅంగీకరిస్తున్నారా?

అవును: 1 లేదు: 2

4.12. How do you treat white discharge white discharge? ఎలామీరుతెల్లబట్టకిచికిత్సచేస్తారు?

4.13. How do you treat red discharge*?*ఎలామీరుఎర్రబట్టకిచికిత్సచేస్తారు?

4.14. Do you administer twice for a day the bark of *indipu* and mixture of water, salt, milk, dried chilly and butter for the snakebite? Yes:1 No:2

మీరుపాముకాటుకురోజూరెండుసార్లుఇండిప్పు, నీరు, పాలుమరియు,

మజ్జిగతోకలిపినఎండుమెరపకాయలనుతినమనిచెబుతారా? అవును: 1 లేదు: 2

4.14.1. Anything else?ఏఇతరత్రా,పేర్కొనండి

4.15. Is the medicinal paste of root of *gattu, nellatangudu* and black peppers antidote for the scorpion bite? Yes:1 No:2

తేలుకాటుకుగట్టువేర్లు, నల్లతంగేడువేర్లుమరియునల్లమిరియాలుపేస్ట్విరుగుడుసమర్థవంతంగాపనిచేస్తుందా?

అవును: 1 లేదు: 2

4.15.1. Anything else?ఏఇతరత్రా,పేర్కొనండి.

4.16. How do you treat pain and swelling of the breasts *sannu kuduru* (during lactation)

మీరుఛాతీనొప్పినిమరియురొమ్ము వాపునుఎలాచికిత్సచేస్తారు?

4.17. Do you collect plants and process them yourself? Yes: 1 No: 2

మీరుమొక్కలుసేకరించినతర్వాతవాటినిమీరేప్రాసెస్కూడాచేసుకుంటారా? అవును: 1 లేదు: 2

4.18. Do you agree that prevention and care are the basic aims of all medical systems?
Yes: 1 No: 2

మీరుఅన్నివైద్యవ్యవస్థలప్రాథమికలక్ష్యాలుగానివారణమరియుసంరక్షణలనూఉంటాయిఅనిఒప్పుకుంటారా?

అవును: 1 లేదు: 2

4.19. Does *Girijana/Natu* Vaidya system has additional goals of immortality of the body?
Yes: 1 No: 2

గిరిజనవైద్యవ్యవస్థలోఅదనంగాశరీరఅమరత్వాములులక్ష్యాలువుంటాయి? అవును: 1 లేదు: 2

4.20. Is indigestion a "Pitha" disease? Yes: 1 No: 2

అజీర్ణంసమస్యపిత్తవ్యాధా? అవును: 1 లేదు: 2

4.21. Is an effective treatment for indigestion mixing fresh lemon juice with honey taken on an empty stomach? Yes: 1 No: 2

అజీర్ణంసమస్యకునిమ్మకాయరసముమరియుతేనెనుఒట్టికడుపునతినటంవల్లతగ్గుద్దా? అవును:1 లేదు:2

4.22. Is constipation *malabaddakam* a 'pitha' disease? Yes: 1 No: 2

మలబద్దకముఒకపిత్తవ్యాధా? అవును: 1 లేదు: 2

4.23. Does it (*malabaddaka)* cause lethargy *nidduramattu*? Yes: 1 No: 2

ఇదినిదురమత్తుకుకారణమవుతుందా? అవును: 1 లేదు: 2

4.24. Does it (*malabaddakam*) cause confusion? Yes: 1 No: 2

ఇదికంప్యుసన్కికారణమవుతుందా? అవును: 1 లేదు: 2

4.25. Can it (*malabaddakam)* lead to death? Yes: 1 No: 2

ఇదిమరణానికిదారితీస్తుందా? అవును: 1 లేదు: 2

4.26. After how many days? ఎన్నిరోజులతర్వాత? Please specify పేర్కొనండి.____________

THANK YOU FOR YOUR COOPERATION (ధన్యవాదములు!)

____

Date of the interview(తేదీ)

APPENDIX 2 QUESTIONS ABOUT FOOD HEALTH AND GENERATION FROM MY PREVIOUS STUDIES

PREGNANCY AND FOOD QUESTIONS:

1. What foods are taboo during pregnancy?
2. What foods are endorsed during pregnancy?
3. What songs are sung when a woman conceives?
4. Any special events upon conception?
5. Do you worship any Hindu deities upon conception?
6. Can the midwife determine the gender or health of baby in the womb? How?
7. How often did you get care? From whom? Where?

DELIVERY QUESTIONS:

1. Where did you give birth?
2. Who attended you?
3. What methods were used?
4. What medicines were given for labour pains?
5. What medicines were used after delivery for you? For baby?
6. What immunizations (if any) was given to you before and after pregnancy?
7. How about the baby?
8. When did breastfeeding commence?
9. Do you throw out the colostrums or use it?
10. What is done with the placenta?

POST PARTUM

1. When can you and baby go out of the house after delivery?
2. How long is seclusion period (if any)
3. Do local health workers respect this time period?
4. What foods are eaten?
5. Do you do any work at that time? How soon after birth of baby?
6. Did you plan in advance how many children you would have?
7. Did anyone ever talk to you about sterilization? Who?
8. What do nurses and doctors advise about post partum care of self? Of baby?

APPENDIX 3 MISCELLANEOUS FOOD INTERVIEW DATA SCHEDULES

QUESTIONS FOR ELDERLY PEOPLE:

-what is the word in your language for “annam”? (white rice)

-do you remember when you or your parents stopped using the tribal word and started to use the word “annam,”?

Did your parents grow annam when you were little?

-tell me the varieties of annam your parents grew. Tell me the names in your tribal language and in Telegu.

--tell me the varieties of annam that YOU grew. Tell me the names in your tribal language and in Telegu.

-if your parents did not grow it, did they purchase it; where?

-when did they start to purchase it?

-where did they get the money to buy it from? (what kind of work they did to get it?)

-if they grew it, was it the same variety as nowadays?

-if they grew it back then, did they also sell it, or grow for home consumption?

-Was annam the main “lunch” food when you were a child?

-how many meals a day did you eat when you were a child?

-what were the main foods eaten back then? What were your favorites?

How did your parents prepare annam?

How is it prepared in your household today?

-do you add salt when you boil it?

-

QUESTIONS FOR “MIDDLE AGED PEOPLE”:

-same set of questions as for elderly

QUESTIONS FOR YOUNG PEOPLE:

-do you grow annam or buy it?

-how many times do you eat it per day?

-is that enough or would you like more?

-how many kilos do you buy in one week?

-How do you prepare it?

-do you add salt when you prepare it?

Ask all age groups:

Are there any sicknesses for which annam is used to treat?

SANGATI :

It is prepared by boiling broken rice and flour of finger millet till a stick paste is obtained. After boiling the left to settle to acquire semi-solid state.

RASAM:

Another inexpensive staple food is Rasam consisting of tamarind water seasoned with oil and tomato and salt. It is eaten by mixing with Annam.

ELDERLY AND MIDDLE AGED PEOPLE:

Did your parents make rassam?

How often did you eat it as a child?

How often do you eat it now?

Is it good for any illnesses?

YOUNG PEOPLE:

Did your parents make rassam?

How often did you eat it as a child?

How often do you eat it or prepare it now?

Is it good for any illnesses?

YOUNG PEOPLE:

Did your parents make karam?

How often did you eat it as a child?

How often do you eat it or prepare it now?

Is it good for any illnesses?

ELDERLY AND MIDDLE AGED PEOPLE:

Did your parents make any powders?

What kinds?

How often did you eat it as a child?

How often do you eat it now?

Is it good for any illnesses?

YOUNG PEOPLE:

Did your parents make any powders?

What kinds?

How often did you eat it as a child?

How often do you eat it or prepare it now?

Is it good for any illnesses?

FRIED FOODS

ELDERLY AND MIDDLE-AGED PEOPLE:

Did your parents prepare any food by frying?

What kind of oils did they use?

How did they get these oils?

How often did you eat it as a child?

How often do you eat it now?

Is it good for any illnesses?

YOUNG PEOPLE:

Did your parents prepare any food by frying?

What kind of oils did they use?

How did they get these oils?

How often do you fry things?

Where do you get the oil from?

What kinds of oils do you use?

How often do you fry foods?

What kinds of foods do you fry?

How often did you eat it as a child?

How often do you eat it or prepare it now?

Is it good for any illnesses?

PACHHADI

Elderly and Middle-aged people:

Did your parents make any pachhadis?

What kinds? Using which vegetables?

How often did you eat it as a child?

How often do you eat it now?

Is it good for any illnesses?

YOUNG PEOPLE:

Did your parents make any pachhadis?

What kinds? Using which vegetables?

How often did you eat it as a child?

How often do you eat it or prepare it now?

Is it good for any illnesses?

VEGETABLE KURALU

There are two varieties *kuralu*. Vegetable fry, curries, made out vegetables green leaves, dhal preparation etc.

Elderly and Middle-aged people:

Did your parents make any kuralu?

What kinds? Using which vegetables?

How often did you eat it as a child?

How often do you eat it now?

Is it good for any illnesses?

YOUNG PEOPLE:

Did your parents make any kuralu?

What kinds? Using which vegetables?

How often did you eat it as a child??

How often do you eat it or prepare it now?

Is it good for any illnesses?

VEGETABLES

Elderly People and middle aged people:

Tell me the wild vegetables your parents gathered and prepared when you were a child.

How often were these available?

How often do you eat them nowadays?

Young people

Tell me the wild vegetables your parents gathered and prepared when you were a child.

How often were these available?

How often do you eat them nowadays?

POTATO, BEETROOT KURA

Ask people of all ages:

Tell me the vegetables your parents grew and prepared when you were a child.

How often were these available?

How often do you eat them nowadays?

Do you grow them or buy them?

Which are your favorites?

FISH

Tell me the types of fish your parents caught and prepared when you were a child.

How often were these available?

How often do you eat them nowadays?

Do you catch them or buy them?

Which are your favorites?

MEATS

Tell me the animals your parents kept grew and prepared when you were a child.

How often were these available?

How often do you eat them nowadays?

Do you grow them or buy them?

Which are your favorites?

APPENDIX 4 RESEARCH ETHICS BOARD LETTER OF APPROVAL

Social Sciences & Humanities Research Ethics Board
Letter of Approval

December 09, 2014

Mr Yalamala Reddisekhara
Arts & Social Sciences\Sociology & Anthropology

Dear Yalamala,

REB #: 2014-3409
Project Title: Whose Reality Counts? Subaltern Science in Telangana and Andhra Pradesh

Effective Date: December 08, 2014
Expiry Date: December 08, 2015

The Social Sciences & Humanities Research Ethics Board has reviewed your application for research involving humans and found the proposed research to be in accordance with the Tri-Council Policy Statement on *Ethical Conduct for Research Involving Humans.* This approval will be in effect for 12 months as indicated above. This approval is subject to the conditions listed below which constitute your on-going responsibilities with respect to the ethical conduct of this research.

Sincerely,

Chair

Post REB Approval: On-going Responsibilities of Researchers

After receiving ethical approval for the conduct of research involving humans, there are several ongoing responsibilities that researchers must meet to remain in compliance with University and Tri-Council policies.

1. Additional Research Ethics approval
Prior to conducting any research, researchers must ensure that all required research ethics approvals are secured (in addition to this one). This includes, but is not limited to, securing appropriate research ethics approvals from: other institutions with whom the PI is affiliated; the research institutions of research team members; the institution at which participants may be recruited or from which data may be collected; organizations or groups (e.g. school boards, Aboriginal communities, correctional services, long-term care

facilities, service agencies and community groups) and from any other responsible review body or bodies at the research site

2. Reporting adverse events
Any significant adverse events experienced by research participants must be reported **in writing** to Research Ethics **within 24 hours** of their occurrence. Examples of what might be considered "significant" include: an emotional breakdown of a participant during an interview, a negative physical reaction by a participant (e.g. fainting, nausea, unexpected pain, allergic reaction), report by a participant of some sort of negative repercussion from their participation (e.g. reaction of spouse or employer) or complaint by a participant with respect to their participation. The above list is indicative but not all-inclusive. The written report must include details of the adverse event and actions taken by the researcher in response to the incident.

3. Seeking approval for protocol / consent form changes
Prior to implementing any changes to your research plan, whether to the protocol or consent form, researchers must submit them to the Research Ethics Board for review and approval. This is done by completing a Request for Ethics Approval of Amendment to an Approved Project form (available on the website) and submitting three copies of the form and any documents related to the change. Please note that no reviews are conducted in August.

4. Submitting annual reports
Ethics approvals are valid for up to 12 months. Prior to the end of the project's approval deadline, the researcher must complete an Annual Report (available on the website) and return it to Research Ethics for review and approval before the approval end date in order to prevent a lapse of ethics approval for the research. Researchers should note that no research involving humans may be conducted in the absence of a valid ethical approval and that allowing REB approval to lapse is a violation of University policy, inconsistent with the TCPS (article 6.14) and may result in suspension of research and research funding, as required by the funding agency.

5. Submitting final reports
When the researcher is confident that no further data collection or analysis will be required, a Final Report (available on the website) must be submitted to Research Ethics. This often happens at the time when a manuscript is submitted for publication or a thesis is submitted for defence. After review and approval of the Final Report, the Research Ethics file will be closed.

6. Retaining records in a secure manner
Researchers must ensure that both during and after the research project, data is securely retained and/or disposed of in such a manner as to comply with confidentiality provisions specified in the protocol and consent forms. This may involve destruction of the data, or continued arrangements for secure storage. Casual storage of old data is not acceptable.

It is the Principal Investigator's responsibility to keep a copy of the REB approval letters. This can be important to demonstrate that research was undertaken with Board approval, which can be a requirement to publish (and is required by the Faculty of Graduate Studies if you are using this research for your thesis).

Please note that the University will securely store your REB project file for 5 years after the study closure date at which point the file records may be permanently destroyed.

7. Current contact information and university affiliation
The Principal Investigator must inform the Research Ethics office of any changes to contact information for the PI (and supervisor, if appropriate), especially the electronic mail address, for the duration of the REB approval. The PI must inform Research Ethics if there is a termination or interruption of his or her affiliation with Dalhousie University.

8. Legal Counsel
The Principal Investigator agrees to comply with all legislative and regulatory requirements that apply to the project. The Principal Investigator agrees to notify the University Legal Counsel office in the event that he or she receives a notice of non-compliance, complaint or other proceeding relating to such requirements.

9. Supervision of students
Faculty must ensure that students conducting research under their supervision are aware of their responsibilities as described above, and have adequate support to conduct their research in a safe and ethical manner.

APPENDIX 5 FINAL RESEARCH ETHICS BOARD REPORT

December 21, 2015

Mr Yalamala Reddisekhara
Arts & Social Sciences\Sociology & Anthropology
Dalhousie University

Dear Yalamala,

REB #: 2014-3409
Project Title: Whose Reality Counts?Subaltern Science in Telangana and Andhra Pradesh

I am writing to acknowledge receipt of the final report for this research project. The research ethics file for this project is now closed. Dalhousie University stores this file for 5 years, after which all records associated with the file may be destroyed.

I would like to remind you of your continuing responsibility to ensure that you maintain any records and data associated with this research consistent with your approved research plan.

Sincerely,

Director, Research Ethics

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[i] He was an Urdu poet who led the youth to rise up and oppose British rule.
[ii]I mean by this, the ability to grow food, buy it or to have some access to food relief.
[iii] Charu Mazumdar was a key Freedom Fighter in India and a naxalite leader for decades and who orchestrated the 1968 Naxalbari Rebellion. He, and a number of his comdrades were tortured and killed in Lal Bhadur Prison. His body was not returned to his family.

[v] A hot liquid made with a tamarind base and tomatoes when available and consumed with rice. A cheap, yet not very nutritious food.
[vi]The monogamous union is highly oppressive for women as Frederick Engles pointed out a century ago. It is, after all, the woman who is expected maintain at least a guise of primordial virginal purity to maintain the family honor while men are relatively free to experiment outside the martial union unscathed. See Sherry Ortner *The Virgin and the State Feminist Studies*, Vol. 4, No. 3 (Oct., 1978), pp. 19-35.