**“Everything in India happens by *jugaad*”:**

***dai-mas* in institutions**

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Since the introduction of a scheme promoting institutional deliveries in India, dai-mas (traditional midwives) have not become obsolete, but remain integral to institutional caregiving in rural areas in ways that are not always recognized. Based on ethnographic fieldwork in rural Rajasthan, I discuss two institutional contexts in which dai-mas were encountered – traditional midwife training event and hospital births. By examining how dai-mas’ authoritative knowledge is reconfigured within institutions, I suggest that the polysemic Hindi term *jugaad* – a phrase describing the kinds of improvisation required in resource-poor settings – captures different aspects of dai-mas’ relationships with and within institutions and the state of maternal caregiving in rural India.

*Keywords: India, authoritative knowledge, dai-ma, institutional childbirth, maternal health, traditional birth attendants*

**Media teaser**: What happens to traditional midwives when the government initiates the transfer of birth from home to the clinic in rural north India?

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One morning in a small *Adivasi* (indigenous) village in southern Rajasthan I got talking to Manju, a young Adivasi woman, while she held her 20-day-old daughter. She said this was her second daughter. Her first had been born in the Community Health Centre (CHC) 25 km away and the second one in the Primary Health Centre (PHC) nearby. Her father-in-law’s brother’s wife, a *dai-ma*[[1]](#endnote-1) (traditional midwife), came to her house and took her there. I asked her why she went to health care facilities to give birth and she said it was because the government gave her money and *sui* (injection). Her mother-in-law came back and joined our conversation. Manju repeated my question. Her mother-in-law replied:

I had six children; all of them were born at home. Everybody used to give birth at home. And now you get money from the government. They give you sui, fill in a card and give you money. If you deliver at home, nobody knows you have delivered, so you do not get anything.

I heard similar reasons to deliver in health care facilities from most of my informants, both Adivasi and lower-caste[[2]](#endnote-2) Hindus residing in and around a mixed-caste village, Chandpur[[3]](#endnote-3). Young women spoke about delivering their children in institutions pragmatically. They did not subscribe to the discourse of risk that was often employed by government officials I met in Udaipur to describe untrained attending to births (Cosminsky 2012). There was little overt resistance to institutional births from mothers-in-law, most of whom delivered in their own homes. Most women said, and many mothers-in-law agreed, that they did it for the money – a financial incentive of ₹1400 (£15) that the Indian government pays women in Rajasthan for an institutional childbirth – a considerable amount of money for many households in rural areas.

This simple answer circumvents the complex ways in which decisions about birth are made within households and communities. It masks how social relations, institutional procedures and power intertwine to make a birth in an institution sound like an uncomplicated choice. What remains unelaborated in women’s accounts but became evident through fieldwork is that dai-mas play an important role in this process.

From the perspective of women in rural north India, dai-mas’ labor is what has traditionally counted as authoritative knowledge in childbirth (Jordan 1993[1978]). Historically, childbirth was conducted in the comfort of one’s home with the support of a dai-ma and female kin (Pinto 2008; Van Hollen 2003; Rozario and Samuel 2002; Chawla 2006; Jeffery, Jeffery and Lyon 1989). Besides assisting in birth, dai-mas also look after women during pregnancy and for 40 days after birth – they bathe and massage newborns, advise on post-partum diets, wash women’s and their babies’ clothes, and perform ritual procedures. As childbirth is considered to be ritually polluting across north India (Jeffery et al. 1989; Rozario and Samuel 2002), in mixed-caste Hindu villages dai-mas are lower-caste women. In Adivasi communities, any woman can learn the skills required to be a dai-ma, usually from her mother-in-law. Dai-mas in these communities most often are kin or close neighbors to pregnant women.

The Indian government’s initiatives to transfer birth from home to the clinic contests the legitimacy of authoritative knowledge held by dai-mas. In 2005, the Government of India launched *Janani Suraksha Yojana* (JSY), a Safe Motherhood Initiative. JSY aims to reduce maternal and neonatal mortality by promoting institutional delivery among poor pregnant women and offers cash assistance of ₹1400 to women who deliver in health care facilities in Rajasthan. JSY redefined what constitutes a safe birth and transferred the authority to perform it to biomedically trained personnel.

Despite concerns that the quality of delivery care in institutions remains poor (Iyer et al. 2016), official discourses of safe motherhood devalue home-based maternity care and dai-mas as its providers (Chawla 2014; Qadeer et al. 2015; Sadgopal 2009). Notwithstanding, dai-mas continue to provide maternity care, especially in low-resource settings (Roy et al. 2021), and remain sources of familiarity and support in many parts of rural India (Chawla 2014; Qadeer et al. 2015). However, the juxtaposition between the support that dai-mas provide at home and the care women receive within institutions continues in writing about birth in India (Roy et al. 2019). Even though some studies mention dai-mas’ engagements with institutions (Chawla 2014; Price 2014), the focus has shifted to ways in which community health workers (CHWs) – accredited social health activists (ASHAs) and auxiliary nurse midwives (ANMs) – took over maternal caregiving after the introduction of JSY (Sidney et al. 2012; Stanford-ISERDD Study Collective 2016). Since the introduction of the scheme, institutional deliveries in rural Rajasthan have significantly increased, but it did not consistently lead to CHWs taking over maternal care. This might be attributed to their lack of kinship ties with the population, a lack of trust for their involvement in family planning, and a lack of time to build close ties with different villages (Jeffery et al. 1989; Rozario 1998; Unnithan-Kumar 2002).

In this article, I discuss an ethnographic context where, instead of CHWs implementing the transfer of birth from home to the hospital, dai-mas emerge as primary facilitators of the JSY. By examining the roles dai-mas play within institutions, I investigate ways in which dai-mas remain part of negotiations of what constitutes authoritative knowledge – an “ongoing social process that both builds and reflects power relationships within a community of practice” (Lave and Wenger 1991 cf Jordan 1997:56). Instead of becoming obsolete due to women giving birth in institutions (Ashtekar 2008; Ghoshal 2014; Sadgopal 2009), dai-mas remain part of institutional caregiving alongside officials implementing JSY, jeep drivers, nurses and doctors in rural institutions, and CHWs. With an increasing uptake of the JSY, the need to navigate bureaucratic procedures and the dai-mas’ abilities to do so expanded what was considered to be authoritative knowledge in childbirth (Jordan 1993[1978]). Dai-mas’ authoritative knowledge was contested and reconfigured in their encounters with institutions: while government officials devalued their knowledge, pregnant women continued to place their trust in the knowledge dai-mas held about both birth and institutions.

By examining practices that converge within an institutional delivery, I demonstrate that an institutional birth in rural Rajasthan does not represent “a shift from one *institutional* site (i.e., the family and the midwife) to another institutional site (i.e., the public hospital as a site of both the state and biomedicine)” (Van Hollen 2003:3, emphasis original). Rather, it represents a merging of these institutional sites as different forms of care are recombined to produce an institutional childbirth where the dai-ma remains a central figure. I suggest that a colloquial polysemic Hindi term *jugaad* is a useful tool to understand this process of improvised recombination in maternal care. Jugaad refers to a flexible approach to problem-solving when using limited resources in an innovative way. Starting as a concept to describe makeshift vehicles and “quick fix” solutions, it has been rebranded as an Indian form of “grassroots” innovation (Birtchnell 2011). An experienced surgeon whom I met at sterilization camps (Luksaite 2016) used jugaad to describe dai-mas’ role in institutional caregiving:

You know, everything in India happens by jugaad. It means an alternative arrangement, for instance, using somebody’s glasses for one time reading or using whatever you have to make it work, such as a scooter’s tire to fix a car […] The only difference between home deliveries with dai-mas and hospital deliveries is infection prevention and detection of complications, which are not possible at home. Childbirth is a natural physiological process, and so many times babies get delivered. If the baby and the way it is positioned is normal, there is no need of anybody there, no need for any intervention, it is a natural process. There might be only ten percent of complications, but dai-ma cannot detect them – there are vaginal, uterus tears which cause infection. And dai-mas deliver ninety babies successfully and ten die, but they do not think it was preventable. That is why they are advised to bring women to the institution.

Jugaad refers to solving problems in a context of scarce resources, “qualities of resourcefulness and recombination” and “the ability to get close to and combine forces with other subjects who can help make a specific goal attainable” (Jauregui 2014:77). Jugaad as an alternative arrangement describes improvised solutions “that allow everyday life to somehow function even in the absence of permanent, durable infrastructures” (Kaur 2016:314). In the area where formal infrastructure to ensure the provision of quality maternal care is lacking, the problem of maternal mortality is being solved by a workaround – by coopting dai-mas into the government intervention. Throughout this article, various meanings of jugaad manifest in dai-mas’ relationships with and within institutions.

# METHODS

This article draws on 18 months of ethnographic fieldwork carried out between February 2012 and August 2013 in a mixed-caste village and its surroundings in Udaipur district, Rajasthan, India. I carried out participant observation in a PHC, a second tier in rural health care infrastructure providing basic emergency obstetric care, where I observed childbirth and interactions between biomedically trained practitioners, pregnant women, and their dai-mas. I observed nine full births and some but not all stages of labor of several other women, some of whom were referred to other health care facilities. I also attended several TBA training sessions organized by Seva Mandir, a grassroots non-governmental organization, and conducted unstructured interviews with dai-mas, biomedically trained practitioners working in the PHC, pregnant and post-partum women, and their families. In addition, I interviewed NGO workers and government officials at district and sub-district levels. Detailed notes were taken during and after observations and interviews, some of which were recorded and transcribed.

# CHANDPUR

Chandpur is a mixed-caste Hindu village surrounded by smaller Adivasi villages and located in Jhadol, a predominantly rural Adivasi subdistrict in Udaipur district, Rajasthan. The 55-kilometre distance to Udaipur, the nearest city, takes over two hours to reach by bus on a curvy, single-lane asphalt road leading through Aravali hills. The largest town in the subdistrict, Jhadol, is located 25 km from Chandpur.

Udaipur district is one of the lowest performing districts in Rajasthan according to social and economic development indicators. At the time of fieldwork, it had a maternal mortality ratio of 208, infant mortality rate of 55, and fertility rate of 2.9 (Office of the Registrar General and Census Commissioner n.d.). Poverty in this area is persistent and interconnected with economic deprivation, poor health, and low literacy rates. Caste, class, and gender hierarchies in Chandpur are historically formed and socially performed in everyday life.

In many ways, Chandpur represents “the margins of the state” (Das and Poole 2004; Tsing 1993), where the power of the state articulates in contradictory and unexpected ways. It is geographically and politically remote from central institutions of power and, therefore, a place where “state authority is most unreliable, where the gap between the state’s goals and their local realization is largest, and where reinterpretation of state policies is most extreme” (Tsing 1993:27). Partially for that reason, Chandpur is the target for development interventions organized by the state, NGOs, Christian missionaries, and Hindu nationalist organizations. Chandpur is a place stuck between chronic poverty and intervention (Pinto 2008), where local functionaries, doctors, and nurses have the uncomfortable freedom to enact programs in ways not originally intended and are often arbitrary and inconsistent (Gupta 2012). I discuss the implementation of one such intervention in the following section.

# TBA TRAINING

A traditional birth attendant (TBA) training has been discussed as an institution born within a discourse of development that aims to transform culturally varied ways of attending to birthing women into internationally recognizable figure of a TBA (Jordan 1989; Pigg 1997). One organization which organized TBA trainings in the area was Seva Mandir. They organized trainings in safe delivery practices and government schemes twice a year to the same group of registered dai-mas. Dai-mas had a strong sense of pride in being certified by this NGO and proudly carried symbolic objects – identity cards on their necks and bags with logos on their shoulders – that marked them as representatives of this NGO and of development and institutions in general (Jordan 1993[1978]), something that transformed them from dai-mas to TBAs. Alongside international agencies viewing TBAs as a social resource, this training did not demonize home births and encouraged dai-mas to practice safe childbirth first; whether it was at home or in an institution was a consideration which came second. These trainings also taught dai-mas how to present themselves to health care institutions and gave them tools to claim a place within the maternal care structure (Jordan 1993[1978]).

I arrived at one such training event when about 50 dai-mas from areas around Chandpur had already gathered but were still waiting for the “big guests”, including Jhadol’s Chief Medical and Health Officer (CMHO), Dr Sharma. At the time of the meeting, I knew many dai-mas in the room quite well because I had been a regular visitor to Chandpur’s PHC. Most dai-mas were illiterate older Adivasi women and only a couple of them were young and relatively new to the occupation. After entering, I was warmly welcomed by many women at the back and made to sit among them. Sharma arrived and sat down on a chair in front of dai-mas, who were sitting or lying down on the floor. “Does everybody know me?” he asked in a pleasant and friendly manner. After most women nodded, he continued:

Does everybody have a card? When you go to *aspataal* (hospital) with pregnant women, you have to have the card on your neck or with you. If you do your work *dhyaan se* [carefully], you will get a lot of money. The more work you will do, the more money will come to you. You also are a *dukandaar* [shopkeeper]; this is your business since you started putting dai-ma behind your name. This is why you need to do marketing also: say *Ram Ram* to everyone you meet in the market, ask them how they are doing and when the time is right, people will come to you for help. If you do *seva* [service], you will get profit. Keep a mobile phone, it is not expensive; give your number to all the pregnant women, keep the numbers of jeep drivers and 108 for an ambulance. However, bringing women to aspataal for the delivery is not enough. You also need to care for the women during pregnancy – remind and encourage them to get the necessary injections. Also remember that your job is only to bring women to aspataal and help them to get registered. Do not even touch the woman who is delivering. You should help with delivery only in emergencies, when the child is coming already and there is no doctor around. If a pregnant woman refuses to go to aspataal due to jeep problems, do not perform delivery at home but call 108 and an ambulance will come to pick you up.

I was puzzled why the Jhadol CMHO officer was addressing dai-mas in the first place. During my earlier visit to the CMHO in Udaipur, the officer-in-charge articulated a disapproval of dai-mas’ involvement in maternal care and blamed their incompetence for maternal mortality in the district. Both Sharma’s visit at the TBA training and his polite and friendly manner with which he addressed dai-mas was somewhat surprising to me. In his monologue, his agenda became clear: he addressed dai-mas as agents facilitating the government’s efforts in transferring childbirth from women’s homes to institutions; he simply encouraged them to bring women to the PHC and discouraged them from performing deliveries.

Sharma recognized dai-mas’ influence in their communities. He related to this group of rural, mostly older, mostly Adivasi women as a resource with an unexplored potential. Sure, NGOs had provided them with training, bags, identity cards, and professional affiliations which had started their transformation from dai-mas to TBAs. But the idea of reproductive entrepreneurship was how Sharma attempted to mobilize dai-mas in the name of the state. The inclusion of dai-mas in government efforts to improve health in South Asia is not new – they have long served as a resource because of the social ties they are perceived to have with their communities (Towghi 2004). The trust that women put in dai-mas’ authoritative knowledge and social relations contained within this role – the relations of friendships, intimacy, and solidarity with kin which underly women’s reproductive decisions (Unnithan-Kumar 2002), and which dai-mas build within their villages – are lacking in state-led caregiving structures. In this context, it was JSY which was “embedded in a moral universe characterized by widespread and long-term mistrust of state services” (Jeffery and Jeffery 2010:1711). During this training, Sharma aimed to provide JSY legitimacy by making an informal arrangement with dai-mas. This informal alternative arrangement was the first form of jugaad that emerged in his talk.

 Besides providing an informal quick-fix solution to the state in accessing rural populations, Sharma encouraged dai-mas to innovate – to become reproductive entrepreneurs and employ social marketing techniques to increase their “childbirth business”. The dai-ma, here, was no longer referred to as a symbol of backwardness and incompetence but, instead, was reconceptualized as a reproductive entrepreneur, a businesswoman who earned a living by maintaining and expanding her social network and who had aspirations to expand her business. Besides jugaad as an informal arrangement, jugaad as an idiom of entrepreneurship emerged. Kaur (2016) described the very function of the jugaad discourse as reimagining the poor as entrepreneurial innovators, as resourceful and self-reliant. The reconceptualization of the figure of the dai-ma as this entrepreneurial figure aimed to control the potential that she held for disruption – the challenge that an unending trust in dai-ma’s authoritative knowledge posed to a biomedical model of birth and JSY. Sharma suggested a transformation from what once was portrayed as a figure representing supposedly unchanging, traditional, and backward practices into a source of “innovation, inspiration and ultimately socioeconomic mobility” (Kaur 2016:315).

Sharma also reconfigured dai-mas’ lower social status stemming from their association with pollution and “dirty work” into what was seen as valued more – entrepreneurial ventures and public service (Rozario 2002). Both of these pathways were encapsulated in one sentence – “If you do *seva* [service], you will get profit”. Within Brahminical discourse, seva refers to a polluting act of service which is given sacred meanings (Srivatsan 2015), while its more common usage refers to helping others precisely without gains. Dai-ma’s usual work can be defined by seva – she does “dirty work” and is symbolically rewarded by putting *ma* (mother) behind a dai, a term that is more commonly used in the literature. Sharma transformed dai-mas into TBAs by redefining their work and seva as potentially profitable. He shifted the discourse from dai-mas who served their communities to TBAs who provided care as a commodity and acted as neoliberal agents of the state. TBAs, then, not dai-mas, could hold aspirations, offer innovation, and achieve socioeconomic mobility. As long as dai-mas facilitated the government’s agenda of promoting institutional deliveries, their role in communities could be strengthened by providing them institutional support and teaching them how to promote themselves as businesswomen.

I was surprised how gentle and friendly Sharma was in the way he talked to women in the room. He called them *bahinji* (sister) every time he addressed them. After listening to women’s complaints about jeep drivers who took money for journeys between pregnant women’s homes and health care facilities but did not show up, he wrote down jeep drivers’ names and promised to track them down. He asked dai-mas to share problems they encountered in PHCs. Many complained about a new doctor and a new nurse posted to Chandpur’s PHC who refused to deliver women’s first children and sent them to Jhadol or Udaipur. “Every time they say that the baby is sideways, so you need to go to a better aspataal”, said one dai-ma and others nodded along. They shared compliments about Raju, a male nurse at Chandpur’s PHC, for performing most deliveries and rarely referring them to another facility. Sharma replied that new staff were very young and asked dai-mas to treat them with patience and give them time to learn. He hinted at the rapid turnover of staff and difficulties in keeping them as rural areas were not preferred locations for newly qualified doctors (Rao et al. 2010), and indicated gaps in the continuity of care as one of the characteristic traits of health care provision in rural India.

 On the second day of the training, a trainer asked dai-mas to tell her if and when sisters and doctors refused to deliver babies and when, instead, dai-mas had to do it themselves. She said: “Look, there are so many government facilities in villages: sisters, doctors, aspataal. So why do we need dai-mas? Sisters are so well-educated, but they still refuse to carry out deliveries. And then we need you – you do so much seva.” Dai-mas here were seen as plugging the gaps where state institutions and biomedical infrastructure failed. The resources that the state had were portrayed as great in numbers but short in their commitments to communities that they were supposed to serve. She named limitations of government’s resources as the primary reason why dai-mas were needed. Dai-mas once again emerged as a patchwork solution to the failures of the state’s infrastructure –jugaad as recombination of incoherent elements enabled the institutional caregiving structure to function at least temporarily.

Addressing problems that dai-mas faced within institutions recognized them as part of institutional caregiving. It provided some legitimacy to the role that they played in maternal care, while explicitly discouraging them from playing any active role in the labor room. Sharma included dai-mas for their embeddedness in local social relations and for their role as cultural brokers between biomedical institutions and local knowledges (Lane and Garrod 2016). His emphasis on discouraging them from taking an active part in deliveries beyond registration devalued dai-mas’ expertise in birth. Sharma legitimized dai-mas’ role in maternal care by deeming their social role necessary but their expertise inadequate. Pigg (1997) examined the politics of constructing TBAs as performing tradition in order to contain the traditional within limited local contexts while simultaneously creating its antithesis – biomedicine – as relevant and applicable everywhere. Sharma spoke as if this hierarchy was well-established and uncontested. In the following section, I illustrate that this recombination of responsibilities in institutional caregiving was a response to how dai-mas found ways to function within institutions in villages that are out-of-reach even for local officials.

# ASPATAAL

What people in Chandpur called aspataal was actually a PHC, a second tier in rural health care infrastructure, also referred to as *davakhana* (dispensary). Chandpur’s aspataal was a two-story brick building, surrounded by a brick wall, which separated the building from the main road and was covered in written messages which encouraged healthy habits, TB screening, and institutional deliveries. Aspataal often had pregnant women wandering its corridors and a small patch of land outside. With its windows and doors always open, birds and stray dogs crossed its corridors on their way to the fields behind.

Everyone I spoke to in the village remembered how recent the transfer of childbirth to an institution was. Ten years ago, people say, aspataal saw neither patients nor staff nor medical supplies. Since the introduction of JSY, Chandpur’s PHC had become the primary location for childbirth for women from surrounding Adivasi villages. The PHC was neither noisy nor crowded the way urban hospitals could be. It was regularly used for births and free generic medicines but stayed reasonably empty.

Aspataal staff waited for patients at the desk in the hallway and passed their time filling numerous registers for patients seen, deliveries performed, and medications and financial incentives distributed. A room on the left was meant for physical examinations and was primarily used to gauge cervix dilation. At the end of the corridor there was a labor room – a small grim room with few pieces of equipment: a delivery table, a lamp, a foot-operated pump for neonatal resuscitation, and scales. A neonatal care incubator stood in the corner. While an incubator is a lifesaving neonatal device, it remained unused in this rural facility and served as a shelf for black plastic bags which covered the delivery table and the bed in the maternity ward so that they remained clean. It represented an unfulfilled promise of high-technology intervention in health care or what Paul Farmer (2001:20) called a “technological fix” – an attempt to solve complex problems, such as infant mortality, through introducing a single technological solution – an incubator – instead of addressing underlying issues of quality of care, access to health care, poverty, and intersecting inequalities. Next to the labor room was a maternity ward with seven beds, where women stayed for three days post-partum.

There were five main members of staff at Chandpur’s PHC during the main period of my fieldwork. The highest-ranking doctor in the PHC was an Ayurvedic doctor. Due to the shortage of Ayurvedic supplies and her lack of qualifications in biomedicine, she neither performed medical procedures nor issued prescriptions for *angrezi dawaai* (English medicine). She refused to perform deliveries because it was “dirty work” and there was a bad smell: “I am a bit sensitive [*sic*], and smells do not affect me very well”, she said. She lived in Udaipur and commuted daily. Padma was Chandpur’s only ANM and conducted both field visits and deliveries in the PHC. She came from a Meghwal family (the only *dalit* caste in the village) and lived on the outskirts of Chandpur. Kamla and Basanti were biomedically trained nurses who referred to themselves as GNMs – holders of degrees in General Nursing and Midwifery – but were mostly addressed as sisters. Kamla commuted daily from Udaipur together with the Ayurvedic doctor. She was reluctant to perform deliveries but did when absolutely necessary. Basanti came from an Adivasifamily in another district, rented a room nearby, and covered night shifts in the PHC.

For most of my fieldwork, Raju was the only man involved in maternal care in the PHC. He came from a lower-caste family in another district but had lived in Chandpur for almost 15 years and was addressed by almost everyone in the village as *doctor sahib.* Kamla told me that he was not a real doctor but a male nurse, another GNM. “He is a man and that is why people think he must be a doctor”, she said. Raju recently opened his own private medical shop and was probably the most trusted “doctor” in the village for both medical treatments and deliveries. Even Padma called him doctor sahib. Most people who came to the PHC for ailments brought scraps of paper with writing on them. PHC staff simply read what was written and brought the medications from the supply room without many inquiries. It turned out that the writing was done by Raju. People went to his house with their complaints in the evenings, Raju wrote “prescriptions” and advised them to get medications for free from the PHC instead of going to private providers who would charge for them.

Padma was the only person who went to the field – she often visited Adivasi villages surrounding Chandpur carrying out immunizations and prenatal check-ups, encouraging women to deliver in the PHC, distributing contraceptive supplies, and motivating them towards sterilization (Luksaite 2016). All of these roles were ways in which an institutional birth extended beyond the birthing event within an institution and into other aspects of pregnancy. Padma was still seen as primarily involved in family planning and would rarely be called to attend births by families (Rozario 1998; Unnithan-Kumar 2002). The role of ASHA has not been rooted well at the time of my fieldwork – I met some ASHAs in surrounding villages, but they were given the job very recently and did not frequent the PHC.

Together with Raju and Basanti, Padma performed most deliveries in the PHC. Raju, Basanti, and Padma came from lower-caste backgrounds and resided in Chandpur. It was not surprising that lower-caste nurses conducted most deliveries, which were considered to be “dirty work”, because aspataal was an institution where caste and class hierarchies articulated in an almost unmasked way. Sisters stood up from their chairs whenever Ayurvedic doctor entered the room, there were different containers of drinking water for staff and patients, upper-caste staff often covered their noses when post-partum Adivasi women approached them, while a peon who cooked food for post-partum women and made tea for staff asked patients to remove their chappals before entering the PHC. Aspataal was a highly ambiguous space that was simultaneously part of everyday social hierarchies (Long, Hunter and Van der Geest 2008) and allowed them to be articulated in new ways.

# DAI-MAS IN ASPATAAL

Almost every pregnant woman who came to deliver at the PHC was accompanied by her dai-ma and kin. Out of nine full births that I observed, only one woman arrived and delivered without a dai-ma because she was attending a function in her maternal village. All women whom I observed giving birth in the PHC or being referred to other facilities were Adivasi women from surrounding villages. Women living in Chandpur had different care trajectories: some delivered in the PHC while others travelled to government or private hospitals in Udaipur, depending mainly on the socioeconomic position of their families.

 After a nurse checked a pregnant woman’s cervix dilation and was told to return after a few hours, dai-mas took care of women until the last minute before birth. For hours they sat or walked around aspataal together and showed women positions meant to induce labor or relieve pain. They squatted together behind the building, dai-mas rubbing women’s backs while they held onto painted PHC walls, or passed time gossiping while moaning in pain and pacing the corridors of the building.

Dai-mas were present in the labor room and were actively involved in deliveries alongside the PHC staff. Once the nurse proclaimed that it was time for the pregnant woman to get into the labor room, the dai-ma prepared the labor table. She covered it with a plastic bag and inserted another plastic bag into the rubbish bin. She put the rubbish bin under the lower side of the table to catch the childbirth blood and other fluids that would form a stream and run down the table. She helped the woman get onto the labor table and fixed the position of the plastic bag. She waited patiently until a nurse rushed back in, radiating the pressing need to be somewhere else and the desire to get this part of labor done quickly.

When a nurse entered the labor room, a clear division of labor was evident. A dai-ma was responsible for the woman’s upper body. She pushed the belly from above, wiped sweat off the woman’s forehead, and held a mobile phone to her ear when she was too weak to do it herself while updating kin on the progress of labor. In the meantime, the nurse was responsible for the woman’s lower body. S/he helped the baby come out of the vagina, made an incision between the vaginal wall and the perineum when deeming it necessary and sewed up the tears afterwards. This resonates with what Unnithan-Kumar (2002) describes as different knowledges and jurisdictions that are shared in the space of one birthing event. There is a clear hierarchy between a dai-ma at a woman’s head and a nurse at a woman’s vagina but there seem to be clear rules delineating the spheres of influence. There is no overt conflict, just a rather smooth co-existence within one space. Different forms of birth work seem to be shared between nurses and dai-mas.

Chandpur’s PHC did not have money designated for a cleaner’s position, so it was dai-ma’s role to clean up the room after the delivery. This role was not formal by any means; it was a routinised informal arrangement between aspataal staff and dai-mas. Dai-mas emptied bins filled with blood and other fluids into a cramped space between the PHC building and the wall surrounding it, just outside the window of the labor room. This space was used to dump biomedical waste, anatomical refuse, empty boxes which used to contain medical supplies, old paperwork, and used syringes and bandages. Stray dogs and crows liked scavenging through this space. Just like “dirty work” of conducting deliveries was avoided by upper-caste staff and relegated to lower-caste staff, “dirty work” of cleaning after a delivery was now being relegated from lower-caste staff to mostly Adivasi dai-mas. This routine relegation affirmed dai-mas’ low social status and subordination to the biomedical system, and allowed caste and class hierarchies to be articulated within a biomedical institution.

The hierarchically organized dai-mas’ “traditional” work and biomedical approach had different concerns during the birthing event. In many parts of rural India, the placenta of the newborn is commonly buried near or within the house to symbolize an embodied relationship with the land and to prevent infertility and evil eye (Jeffery et al. 1989; Pinto 2008; Santoro 2011). Burying placentas became more difficult to implement as deliveries moved to institutional settings. Dai-mas often took an initiative to procure the placenta from the labor room and bring it home to be buried. They often had to improvise to achieve this.

When I witnessed this the first time, there was no secrecy surrounding the procurement of the placenta. After speaking to the pregnant woman and her dai-ma in the morning, I returned to aspataal later and joined the delivery when the baby was already out but the umbilical cord was not yet cut. The dai-ma was holding a plastic bag on the side of the delivery table for the placenta. She must have discussed this with Raju because he cooperated and gave me a knowing look. The dai-ma and the mother-in-law both participated in this effort.

Eva: What are you going to do with it?

Dai-ma: We are taking it home and we will put it into a dug hole outside of the house.

Eva: Are you going to do it today or after she returns from aspataal?

Dai-ma: Today itself because it will start stinking by the time she comes back.

After massaging out the placenta, putting it into the plastic bag, and squirting some iodine from a big bottle from a distance to disinfect the vagina, Raju left the room with the same hurry with which he entered. Following his instructions, the dai-ma and the mother-in-law put a bandage around the woman’s waist, took an already prepared bundle of bandages to serve as a sanitary pad, and, after fitting it outside the vagina, tied it to the string around her waist. The dai-ma rejected the mother-in-law’s suggestion to change the woman’s dirty skirt for a clean petticoat: “We will do that later”. The mother-in-law covered the woman’s head and body with a shawl. The dai-ma took the woman by her elbow and helped her slowly move out of the labor room and into a maternity ward. The dai-ma carried the bag with the placenta, while the mother-in-law carried the newborn.

Some dai-mas explained that they needed to steal the placenta because nurses scolded them for it. This time Raju had no problem with this procurement and simply saw it as something that Adivasis did. “It is their custom, what can I do?” he explained later. He provided space for this practice to exist within an institution precisely because he deemed it as locally relevant and harmless (Pigg 1997). The story of a placenta stolen from an institution or a placenta acquired through an arrangement with a nurse is an illustration of jugaad as “‘working around’ difficulties by hook or by crook” (Rajan 2015:60). The institution allowed it to happen by defining it harmless and irrelevant because it would be too difficult to eliminate it as dai-mas remained key players in birth. Being ignored within institutions is a relatively common experience for dai-mas (Chawla 2014), but here they used it to their advantage. Dai-mas knew that burying the placenta had no place within an institutional birth, so routinely subverting institutional rules to procure it became part of their duties.

I witnessed many other ways in which dai-mas’ authoritative knowledge functioned within institutions. I observed, for example, Ganga’s long and difficult delivery of her first child. She arrived accompanied by her mother, father, and a dai-ma, Tulsi, from her village. Padma and Raju were both in the PHC when the family arrived. After a quick check-up, Padma established that Ganga’s cervix was dilated enough and Tulsi directed Ganga and her mother into the labor room. While the father stayed outside, Ganga was put on the birthing table and was surrounded by her dai-ma and her mother near her head while Padma and Raju took turns to look after her lower body. Tulsi was pushing Ganga’s belly with such strength that the whole table was moving. Neither Padma nor Raju challenged the dai-ma’s actions although even in TBA training I attended dai-mas were advised against pushing on the abdomen during birth. At the time of the birth of the baby, Padma announced to the dai-ma that it was a girl. Padma put the newborn on the scale, read the weight out loud and left to call Raju to sew the vaginal tears. Raju came back holding a curved needle and scissors. Tulsi took the newborn from the scales and said that it was a good sign that a newborn did *tatti* (defecated) immediately after birth and proudly showed me the dirty cloth. She left the room and spread a plastic bag on a bed in the maternity ward and put the newborn down. She said she did not allow newborns to be washed in aspataal because *puja* (ritual) needed to be performed at home before the newborn could be bathed for the first time.

Contrary to similar accounts (Price 2014), Tulsi’s work and knowledge functioned unchallenged in this encounter. The act of pushing the belly during birth, the knowledge, pride, and joy she expressed while showing me the dirty cloth as a sign of newborn’s good health, and the power she held to direct when the newborn should be bathed were all acts demonstrating the space dai-mas carved for themselves in institutional settings. They may have been coopted into this space for their social connections, but dai-mas remained relevant and authoritative to women who gave birth. They were often unchallenged by biomedically trained personnel precisely because they were deemed irrelevant.

 Dai-mas challenged biomedical decisions themselves, especially when it came to referrals. By definition, Chandpur’s PHC was not equipped to deal with obstetric emergencies. According to Raju, in rural places like Chandpur, the focus of institutional childbirth was on changing simple practices that might cause problems during home births – applying antibacterial solution, cutting the umbilical cord with clean instruments and sewing vaginal tears with a sterile needle. When a nurse suspected that the baby was positioned sideways, the woman and her companions were put into the ambulance and transported to a better equipped facility – CHC in Jhadol or a hospital in Udaipur. Most women, their dai-mas, and kin found such travel inconvenient. One dai-ma narrated her frustrations about leaving their village at 3 am to come to Chandpur’s PHC where a nurse referred them to Jhadol instead. They reached Jhadol CHC at 7 am, received a bed there at 12 pm and at 3 pm were told to go to Udaipur. The baby came 10 min after they reached a hospital in Udaipur. “Being a dai-ma is an affliction – I drank one *chai* (tea) in the morning and then ate *roti* (food) at 9 in the evening”, she said. Inconvenience that women’s kin and dai-mas experienced as a result of a referral to another facility that was better equipped to deal with an obstetric emergency that they were diagnosed with, demonstrated a lack of trust in biomedical decisions and definitions of safety. Dai-mas’ insistence, here, resonated with claims that ‘institutional’ deliveries did not always mean ‘safe’ deliveries (Barnes 2007 cf Sadgopal 2009). Despite the critique dai-mas expressed towards referrals, their commitment to the continuum of care (Chawla 2014), this time in the situation of multiple referrals across institutional sites, remained a key source of support for birthing women.

Most dai-mas negotiated the referral by demanding that Raju be called to perform the delivery instead. Raju was thought of as somebody who could deliver babies in any situation and was not afraid to take risks. This was considered to be a valuable skill by dai-mas. The combined expertise of Raju and a dai-ma was considered to be enough to ensure the successful outcome of birth – everyone’s safety and a financial compensation from the government. Negotiating the legitimacy of the referral dai-mas challenged the authority of biomedically trained staff and their ideas about a safe birth. I did not encounter negative reactions from women about Raju’s role in their caregiving even though men were rarely involved in the management of labor. Dai-mas spoke about Raju as their preferred choice of biomedically trained staff, so his presence in birth was desirable to ensure convenience. However, when Raju was not available, the family had no choice but to get into the ambulance and be taken to a different facility. If a child was born in an ambulance, it was considered to be an institutional delivery and the woman was eligible for the financial incentive of ₹1400.

After birth, dai-mas submitted documentation on women’s behalf and collected their own rewards (Image 1). Until sometime in 2013, dai-mas received a check of ₹150 from the government (Image 2) for every woman brought to the health care facility, an incentive designed for CHWs. This payment was only offered to dai-mas who could demonstrate that they were TBAs trained by an NGO. Later on, these payments were stopped for reasons I am not aware of. However, it remains interesting that the state transiently but formally incorporated dai-mas in to their institutional caregiving, but this happened only because dai-mas had already been made into institutional figures – TBAs – by Seva Mandir.

 A dai-ma in an institution represents the co-existence of different models of birth in an informal arrangement. Precisely because women’s voices count less within health care institutions (Davis-Floyd and Cheney 2019), women in Chandpur found a pragmatic arrangement of combining childbirth in institutional settings with the support from their dai-ma in making bureaucratic arrangements and providing physical and emotional care during labor (Image 3). The success of the transfer of birth from home to the clinic relied on traditional structures of maternal care and financial incentives rather than on biomedical definitions of safety in childbirth.

# CONCLUSIONS

I have argued that with the increasing prevalence of institutional deliveries since the introduction of JSY, dai-mas did not become obsolete in some areas of rural Rajasthan. Their role has been reconceptualized during the TBA trainings and their authoritative knowledge has been reconfigured in the encounter with JSY. Government officials pushed dai-mas onto sidelines of maternal caregiving by blaming them for maternal and infant mortality or conceptualizing them into merely social facilitators of the government’s agenda. Even though dai-mas’ skills were deemed either inadequate or irrelevant, they often remained unchallenged in their practice within institutions. I demonstrated that dai-mas did not simply challenge the medicalization of pregnancy and institutionalized deliveries (Sadgopal 2009) or overmedicalization of birth (Davis-Floyd and Cheney 2019), but, rather, penetrated institutions and biomedical spaces and reconstituted themselves as relevant actors.

Through TBA trainings and continuous practice, dai-mas gained the capacity to navigate official procedures and improvise within health care facilities which expanded what is considered to be authoritative knowledge in childbirth (Jordan 1993[1978]). Having a dai-ma as an intermediary between women, kin, biomedically trained staff, and institutional practices was one of the leading factors for a significant increase in institutional deliveries in some areas of rural Rajasthan. In contrast to Jordan’s (1993[1978]:59­–60) observations that village midwives in hospital settings “appeared stupid, illiterate, and inarticulate” while their skills were respected in their communities, my observations showed that there needs to be a more nuanced understanding of what counts as authoritative knowledge within institutional settings. Precisely because dai-mas’ practices were deemed irrelevant, they remained unchallenged and continued to operate within institutions. From the pregnant women’s perspective, dai-mas continued holding authoritative knowledge and providing care in childbirth notwithstanding their subordination to biomedically trained practitioners in the institutional hierarchy. The line between the social support that dai-ma provided and the expertise she contributed in the birthing event was blurred.

Multiple meanings of jugaad captured various aspects of the implementation of JSY. Maternal caregiving in institutions could be characterized by various informal arrangements and improvisations that made it possible in rural areas like Chandpur: nurses relegated the cleaning of the labor room to dai-mas who had no official role in aspataal, dai-mas improvised the acquisition of placenta by building informal alliances with biomedically trained staff or stealing it while nurses taught dai-mas to prepare makeshift sanitary pads when supplies ran out. Besides these everyday ways of doing jugaad – informal routinised quick-fixes – jugaad as an idiom for innovation emerged in the attempt to redefine dai-mas as reproductive entrepreneurs who ran their “childbirth business” as neoliberal agents of the state. In its various facets, jugaad in institutionalising birth captures a form of governance found in the margins of the state, where state power is contradictory and inconsistent (Das and Poole 2004; Gupta 2012), but where social hierarchies run deep. As a collaborative practice between state functionaries, biomedically trained personnel, and socially marginalised Adivasi dai-mas, jugaad engenders a reinterpretation of government policies which “allows everyday life to somehow function” (Kaur 2016) in rural under-resourced settings.

There have been calls to strengthen maternity services in India by incorporating dai-mas into formal infrastructure (Qadeer et al. 2015; Roy et al. 2021; Sadgopal 2009). However, a dai-ma in an institution as she emerges throughout this article is only a quick-fix solution. Instead of being incorporated for their skills and knowledge and given rewards and recognition, dai-mas remained a pragmatic shortcut benefitting all stakeholders to some extent. Even though a formal infrastructure for institutional births was present, ANMs were not trusted in the matters of birth while ASHAs had not yet established themselves within their new roles. A dai-ma was, therefore, a workaround for the state to gain legitimacy within communities with little trust in government services. A dai-ma’s position remained ambiguous as it combined traditional practices of maternal care, institutional caregiving in scarcely equipped health care settings and functioning as navigators in institutional settings. Dai-mas remained simultaneously “objects of blame and agents of change” (Pinto 2008:218) and this ambiguity was a new form of continued liminality that had characterized dai-mas’ role across north India. This very ambiguity of their status and the field within which they operated unchallenged was precisely a source of their resilience.

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# NOTES

 Anthropologists commonly use the term *dai* to refer to women who assist in birth in north India. In my field site *dai* was always followed by an affix *ma* (mother). Therefore, alongside Chattopadhyay, Mishra and Jacob (2017) I use the term *dai-ma*.

2 Caste is a form of social stratification in India that has been classically characterized by endogamy, non-commensality, and hereditary occupations.

3 All names have been changed to protect anonymity.

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1. [↑](#endnote-ref-1)
2. [↑](#endnote-ref-2)
3. [↑](#endnote-ref-3)