Podcast transcript

Palalavi Laxmikanth, University of Adelaide

Outwitting the temporalities of ‘control’ for Tyrp 2 diabetes in urban India

All right, so good morning to everyone in the UK and in Europe and good evening to everyone is tuning in from Australia. My name is Pallavi and I'm a PhD student at the University of Adelaide. Just First off, I want to say that I've been unwell for the last few days. I've had a temperature and a cold. So if I just apologise in advance if my voice is low or I reach out for some water or I cough in between. So this presentation is me thinking through my last empirical chapter of my thesis and it draws upon ethnographic field work which I conducted in Hyderabad in Urban India between January 2020 and January 2022.

And this was among transnational IT-employed new middle class communities. My insights were collected amidst a raging pandemic in India where I largely had access to my mother, who is incidentally here with us, and extended family and friend networks. My project examined colloquial understandings and practises of diabetes management in the context of developmental modernity and emerging forms of food consumption and dietary programmes. This presentation discusses my participants relationship to one specific material semiotic device which is insulin based medication.

Before we get into the presentation, I wanted to show you where I was. This was my field site. I stayed in an area called High Tech City, which is in a crowded area, crowded part of the IT district in Hyderabad. It's full of large apartment buildings, multinational corporation offices, hospitals, shopping malls and things like that. And this area has grown and taken shape primarily over the last two decades with the emergence of the IT and the start-up industry. And with this, there's been a lot of both urban and rural migration, the consequence which is changing spatial temporal patterns of the city's odd work hours, stressful work timings and changing consumption patterns. And in the mid midst of all of this, app-based delivery services, convenience foods, and the proliferation of global food quality and dietary practises for health and fitness.

Well-being is increasingly prominent, I just wanted to quickly introduce my introduce and give a background to what I'm going to talk about today. Type 2 diabetes, which I will refer to as diabetes from here on, is a disease that is biomedically centred around its chronicity. That is, it lasts lifelong and long term with no discernible cure. And blood sugar control through medication lies in the biomedical compliance with frequent measurement of blood glucose levels. Measurement of calories, portion sizes and nutrients, and temporal discipline over diet and exercise in many overt and covert ways across public and medical scientific discourse, such as the thrifty gene hypothesis or the nutrition transition or the thin fat Indian paradigm diabetes in India has been situated or defined as a disease of time and a sign of the times, of how the subaltern body is biologically maladapted to catch up to the excesses of modernity.

Biomedicine situates diabetes as a symptom of culture, having moved faster than the body in time, and inability to acculturate to modern and developed lifestyles, measurements and time are the two axes used to situate this maladaptation which plot and index bodily processes such as blood glucose levels, organs and epigenetics as cultural shifts. Today's discourse of diabetic chronicity is steeped in neoliberal and Kantian rationality that responsibilizes subaltern communities and culturally specific practises while holding them to a Eurocentric definition of temporal progress in modernity. In this they remain backward in time, and their emancipation ironically lies in biomedical innovation, and so culture is fetishized in diabetes treatment and prevention, with common barriers in India cited as non-

compliance or inconsistent management, or a desire to eat sweets during a festival, or the inability to negotiate portion sizes due to commensal eating practises.

And in particular, the reduction and removal of insulin based medication, which is accompanied by tinkering with diets, exercise and herbal remedies, is a common practise that is biomedically seen as non compliant behaviour that is rooted in cultural belief.

In this presentation I engage with diabetes reversal.It is a practise and a relatively new paradigm that has gained popularity since about 2016. And it involves medication removal and reduction and dietary changes and supplementation. I demonstrate how removing medication is beyond a matter of cultural belief or non-compliance. It is about the temporal nature of the relationship between body and illness. How long is illness allowed to be in the body and what is the role of medication in curing it.

If medication merely controls diabetes and doesn't cure it, then what was it really doing? Doing reversal challenges, the idea that disease is lifelong and managed by strict dietary schedules and glucose. Monitoring reversal promises an end to diabetes through listening to the body's time and challenging the role of insulin based medication in mediating this end to diabetes or not. So in this presentation I attend to the work that the promise of an ending to diabetes does to inspire solutions to a life without diabetes.

And I used an STS based methodological orientation where I explored the ideas, motivations and enactments of my participants towards diabetes reversal. I situated insulin based medication as a central actor of a web and I explored participant narratives. Dietary influencer content, books, videos, and audio material that were used or referred to within this site, and I saw them as interacting within a network.

And this is the broad structure of my presentation and in the first part I begin by framing the problem of control versus cure, as articulated by two dietary influencers in Hyderabad. They demonstrate that medication perpetuates diabetes over curing it under the guise of control, which they characterise is a lie.

In the second part of this presentation, I take us through Prasad and Pradeep's experiences and show that reversal begins with tinkering with ideas and forms of reducing and removing medication through their narratives are demonstrate how medications, presence, prescription and dosage enacts the temporal parameters of diabetes from everyday meal timings to the discourses of chronicity and modernity. I argue that medication is a material semiotic device that embodies and enacts what I call chronography. Like time, chronography is an order of time defined by who controls it its value and how.

In the third part of this presentation, I take us through Srinivas's journey through of pursuing a local reversal programme. I detail his approach to it and his daily schedule, and I demonstrate how he uses reversal to outwit chronographic time. He listens to the body's time, revealing an embodiment of health as a processual self-improvement towards a metaphysical ideal, as opposed to retroactive problem solving approach that biomedicine uses. Consequently, reversal redefines diabetes solutioning from lifelong control to being solution through bodily attunement, which requires multiple practises. But importantly, outwitting and reimagining time.

Before I get into the empirical material, I want to flag that I will be using two biomedical terms. I will be referring to blood sugar levels with like 3 digit numbers and these are measured in milligramme per deciliter, and there is another measurement that my participants used called HBA1C. It is a test that measures the average blood glucose levels over three months and it is based on the amount of glucose that is attached to the haemoglobin.

Framing the problem as control is a lie. In May 2020, I was viewing a YouTube video of a dietary influencer whose programme a participant had followed to successfully reverse their diabetes. I was fascinated and struck by this word reversal, one that shared a linguistic and discursive relationship to time. It was frequently used by VRK or Veeramachaneni Ramakrishna, founder of the Indian Keto Diet, as he called it. His programme was modelled around a globally renowned nephrologist via VRK, who had reached out to his audience through talks and marketing collateral in the vernacular, was immensely popular in the Telugu speaking states as form of guru which translates to diet magician. Who could work wonders and help people remedy their obesity, diabetes and cardiovascular disease on my screen, VRK was engaged in a vociferous debate with a biomedical doctor over questions of the efficacy and dangers of pursuing his diet.

For it required its patrons to stop their insulin based medication for its duration. Dr Rama sat in a little box on my screen in a black suit, white shirt, wearing full rimmed glasses. He often held his chin with his right hand and paused for thought and gesticulated while speaking. A doctor, a medium built moustache man with wavy greying hair was wearing a grey shirt and sat in another box, leaning forward as if eager to respond. In the debate, the doctor asked VRK if patients stopped taking their medication, who will be responsible for lost lives. They are OK, he flipped the argument and questioned the doctor. He posed an example of a man who visited a doctor with his fasting blood sugar levels at 170mg per deciliter. The doctor would prescribe him two tablets and send him away. The man, happy that his medicine had brought his sugars down to 90, believes it is under control. Until after a year, his sugars go back up to 180 and he's prescribed 2 more tablets. Perplexed, the man would ask the doctor. Why do I need to take two more? And the doctor would respond - because your sugar has progressed. Now he has to take 4 tablets to bring his sugars back down to 90. A few more years on this and then he will progress to taking 4 injections. And one day, the man will return to the doctor with a wound on his foot, and the doctor tells him he would have to amputate his toe. Why? Because the doctor says his sugar has progressed. At this point he leans forward to deliver his polemic. Why did he go to the doctor? He asks. Why did he give all of this medication if his sugar was under control? Why would he have to remove his toe? What is the answer to this? Tell me if his sugar is under control, then what is diabetic retinopathy? What is diabetic nephropathy? Anyone who has taken your medicine for decades has to remove some organ or part of their body. Is this why they should take tablets where they born to suffer at your hands the hands of medicine? Everyone from America to India, it is the same. Don't treat the symptoms of the illness, treat its cause. The cause is insulin resistance. Treat that. After this sharp and cutting soliloquy, Dr Amir raises a few questions. But VRK has made his point. Control was about biomedicines' failure to live up to its promise. Behaviour control was a lie.

Speaking to the respondents, experience by my participants with never ending control influencers like Verk instead promise a cure, a promise that, as Bharat Venkat says, is intimately related to the idea of an ending. This is a book.by Doctor Nandita Shah and she's a dietary influencer in Hyderabad who advocates the raw vegan diet to reverse diabetes. And in this book, she, which is a famous book, it's called reversing diabetes. In 21 days, she begins with a striking statement. She says contrary to what you hear, there is a cure for diabetes, but to solve any problem, we must first understand the cause and then remove it. The cause of diabetes is not lack of medication, the cause of diabetes is insulin resistance or lack of insulin. The diagram taken here is from Shaw's book, where she describes diabetes as caused by the increased amount of fat stored within cells. Insulin, which acts as a key to unlock the door to the cell and let the glucose molecules enter, is present in insufficient quantities in the person with diabetes. Thus, glucose circulates in the blood and is passed out through the urine. What medication does, she says, is by acting like insulin, it pushes the glucose converted from digest to functions into the cell. Since there is enough energy in the form of fat, the cells do not need the excess glucose. The medication is trying to push into it. In such a case, Shah says, medication is counterproductive as it fails to cure, it keeps increasing the amount of fat that is stored by cells without addressing the cause of the

problem, which as she describes, is insulin resistance. The cells lose their sensitivity to insulin. For Shah, the problem of diabetes is a public misunderstanding. The widespread belief that there isn't a cure when there is. And the central actor of this problem is medication, which targets the lack of insulin instead of targeting insulin resistance, promising not an end or cure to the entirety of diabetes, but somehow ensuring moment to moment temporary control. Which, as Prasad will describe in the following section, goes nowhere.

Prasad, an IT professional, was recommended as a participant for my study due to his discipline and adherence to a strict dietary regimen. Among my participants, several of whom knew each other, Prasad featured constantly as a prime example of how things should be done. It was widely known that he had taken matters into his own hands, having stopped taking his prescribed diabetes medication and controlling his sugars purely through eating. I had met Prasad a few times at lunch, buffets organised by my father's company, and noticed that he would just take a small cup rather than a plate to eat. He would fill his cup or cups with curries, sauteed vegetables or salads, and he would finish this off with perhaps a cup of Dal or a cup of curd. Over a Zoom call with me in June 2020, he narrated how he discovered his borderline diabetes through a company sponsored health check up in 2017. Prasad was prescribed a daily dose of metformin, which the doctor justified as a preventative against organ damage in the future. So in this manner, Prasad's diagnosis came to bestow a temporal orientation to his life, like not only was his disease lifelong, but it was slow, insidious and invisibly damaging. Medication would manage and mitigate its effect the effects, but it would not remove them completely. After a year of taking metformin.

Prasad had another medical checkup. His HBA 1C, which was earlier 6.4, had marginally gone down to 6.2. However, the doctor increased his prescribed dosage to 1000mg per day, which he managed to take only for a month. He described the experience of this new dosage. “I was not comfortable at all. It was very bad and it was showing on my health. I was feeling, you know, weak energy, less hungry and things like that. It was a totally uncomfortable situation”. End Quote.

After a month of this, he decided to take matters into his own hands and brought his dosage down to 500mg for another six months without telling his doctor. At the end of it, his HBA1C remained at 6.2. He describes this juncture as the point where the dissonance set in, the fact that the medicine merely kept his disease where it was and didn't change it in any way. This was a catalyst for Prasad to seek out other options, he said. To quote “How do I get out of the situation? You know, I don't want to use any medicine, OK? Because this is not going anywhere. I want to get out of that situation. So is there a way or no? Is there a mechanism where I can stop using medicine and, you know, practise something else taken by the idea that his diabetes could be solved without medication?” We spent nearly two hours a day for two months on the Internet researching solutions. “Why was being off medicine so important?” I asked. “Wouldn't medicine make it easier for you to eat the things you like?” He laughed. And said “If medicine would have allowed it, but then I would have freaked out on food because since medicine is controlling me”. While for others and his family, medication presented the freedom to continue eating what they liked, to Prasad it signalled a dependence. Medication would let him eat what he wanted, but he didn't want to be controlled by it. He wanted to have an independent relationship with food, one that was determined by his will and agency, not the will and agency of medical.

Here was emerging the material semiotic fluidity of medication. An influential Karnataka-based study of pluralistic medical practises in the subcontinent also reflects on India's practises of consultation, reflects fundamental perceptions of how long medications should be present in one's life. And how they should look and operate. English medication or allopathy are seen as crisis-oriented, to be used sparingly and carefully, as they are not compatible with the body in the long term. They are temporary mediators merely there to shift the body out of its disease state. From there on, the body's own strength and capacity must be tapped into for if medication.If it lingers for long, the body will remain weak. Prasad's

hesitancy towards dependence on medication can be similarly understood. Useful, but not for a body that doesn't need it anymore. Thus, the chronicity of diabetes imposed by biomedicine and medication disempower the body if, according to Prasad, he left eating to the will and ways of medication, it would begin to dominate, determine and control not just the ways he would eat, but his own sense of self.

Pradeep, another participant, prided himself on his military style, discipline, having quit smoking, cold Turkey. However, control over his diabetes was one thing that evaded him and contributed to a disillusioning experience of his sense of self. Pradeep's initially diagnosed fasting blood sugars were dangerously high at 3:50, and he was recommended as strict dietary regimen as the diet chart on the slide shows, along with insulin based medication and insulin injections, he was instructed to eat several meals a day in tiny portion sizes, such as half an apple, two biscuits, or one roti. Despite his diligence and determination, his HBA1C continued to range around 8 to 8.5. Until two years ago, when he decided to pursue reversal, Pradeep had given up on the idea of blood sugar control. His frustration mounted around the fact that over time, the prescribed dosage only increased and his dietary experiments became stricter. He decided to pursue reversal, he says, because he realised that the solution lay in diet, not in medication.

I was curious. Weren't his struggles with control a result of adhering to the strict regimen he was prescribed? But Pradeep proceeded to explain “It's because we followed the solution to the problem as medicine. If I eat something, take medicine. If I eat this, take medicine”. I began to understand, “So everything is medicine-centric rather than diet?” He replied “Exactly. We did not realise that for a very long time. So slowly, slowly we tried to understand. When I met the doctor, what the doctor told me is break your meals, eat, keep eating, eat little, little, little. And what I understood today, was that was wrong. I shouldn't have done that”. What Pradeep was alluding to was that not only was eating in tiny portion sizes a strange way to eat, but that eating as a practise had become about medication. He needed to eat according to how the medication could control his blood sugars for those few hours without causing a rapid spike or sudden dip. For Pradeep, diabetes medication was controlling every moment of his life through making eating conform to the way it works. Through control, every intake of medication, every morsel he ate, and every mistake his wife, Deepa, made in the kitchen was indexed. As a marker of vital time, biomedically defined time makes one contend with an ontogenetic representation of their body, enabling them to work towards a progressive mortality. Every incident that indexes, whether Pradeep's blood sugars are in control or out of control, takes him one step closer to reckoning with his mortality, indexing vital time through self measurement amounts to acknowledging the chronicity of diabetes in participants lives.

Self measurements that are to occur at home are meant to establish therapeutic rhythms that, as embodied mnemonic devices, acknowledge the presence of chronicity in the everyday lives of people. Often medication, I suggest, is one such actor or embodied pneumonic device that is oriented at establishing a temporal rhythm. It is a pivotal material, semiotic intervention, an idea, as well as material form that enacts what I see as Chronocratic time. Chronicity is the political control of the value of time. Its power is exherted through technique and ethic.

Through being embedded in Pradeep's life and disease, medication orients the temporal markers of everyday living around itself. It imposes and reinforces dominant framings of time, in this case of diabetes, its and its chronicity. Thus, medication embodies and enacts chronography and elicits Chrono political consequences.

Pradeep's dietary protocol was designed not just according to the nutrients and calories he would require, but also based on moderating the intake of foods that would cause blood sugar spikes, which the medication was designed to appropriately control. Dietary changes were designed for the presence of medication, not its absence. Through questioning, control,

and consequently vital time and mortal time and its indices, Pradeep was challenging biomedically imposed chronographic ways of defining the body and its lived experience in time.

Chronocracies are disempowering to a body with diabetes. They situate time as outside the body and separate from it and impose time externally. They project an image of progress in linear time, depicting issues of the Global South as an essentialized failure of populations and places to be coeval with a global model. Public discourse around diabetes in the social body frames it as a temporal index in its own right, a sign of the times of modernity, globalisation and urbanisation. This turns medication and its chronographic presence into an intervention that helps the body catch up to modern time. Medication is placed as enabling the goal of coevalness, where the lack of being coeval is seen as a bodily limitation in order to challenge chronocratic time. We need to identify and change its dominant modes that direct accumulation and disorient the rhythms of our lives and of the world as a solution devised for the maladjustment of the body to its environment. Medication works to define the spatiotemporal parameters of diabetes, playing to the constructions of the disease being never ending, progressive.

But the reversal practises that my participants engage in through removing or removing or reducing medication challenge the chronocracies that are built into everyday clock time, vital time and modal time. Through reversal lies the promise of outwitting Chronocratic time, for if an end is found and living in modernity is reimagined, perhaps diabetes need not exist, by questioning control through insulin based medication. Pradeep and Praveen were challenging biomedically imposed chronocratic ways of defining the body and its lived experience in time. They did this by listening to the body, its hunger, discomfort and desire as Srinivas will demonstrate in the following section.

A chartered accountant with his own private practise, Srinivas was encouraged to begin the VRK diet after being diagnosed with diabetes in 2018. Finding his HPA1C at 15.2, which was the highest I had seen in the course of my interviews, Srinivas was admitted to the hospital for his high blood sugar levels and was prescribed injectable insulin. He refused to take it because he had heard from his uncles that once you get on insulin you can never get off. Concerned for his health, Srinivas was ushered by his mother and sisters to watch VRK's videos. His diet, like many other keto diets, is premised on putting together foods which are rich in certain types of fats, low in carbohydrates and adequate in protein, vitamin, fibre and mineral content. In the keto diet, the body which was originally consuming a larger quantity of carbohydrates and limited quantities of other nutrients, is pushed to burn fats and use them as a source of fuel. VRK's recommended schedule is the 90 day programme during which one is required to strictly follow his protocol and remove any medication that interferes with metabolic processes.

Until Srinivas listened to VRK's videos, he hadn't even considered the possibility of managing his diabetes without medication. Despite his extended family advising him against the diet, he decided to try it out. Saying, start quote, “I'm not eating something which will kill me. I was more confident with respect to that part. I'm not eating any sweets and I'm not eating any fruits and I'm not eating any rice. So where the hell will sugar come into me? But they said you're eating too much fat. But we are OK with saying that eating fat is not a problem. Not melting it, I think, is the problem. There is a fear factor established about facts. And you know, on the other hand, taking sugar and all is seen as OK”. End Quote. He decided that he would try the programme initially for 10 days. And his inspiration to take this risk came from his understanding of diabetes as not a disease. He said “I always felt that, you know, diabetes was, I felt it's not a disease, it has to do with something else instead of getting me stuck with this medication, I always felt all home remedies should be working good and proper. Eating pattern is what I have to develop. I always used to say there must be something else rather than medication. Because after all, it's only the body”. VRK's talks resonated with Srinivas's belief that diabetes could be reversed and remedied through a

dietary programme which privileged the capacity of the body over the capacity of medication. Srinivas had somehow always intuited that medication wasn't the answer. That medication made him feel disconnected to his body. Dizzy, hungry all the time. He contrasted home remedies, eating patterns and cultural solutions with medication for diabetes. Diabetes was not a disease in the ways that it was solved through practices of care, not singularly targeted through medication. Through his programme, VRK was helping Srinivas shift the node, or locus of his temporal index, from medication and biomedical diets to his body. On a typical day on the diet, Srinivas would start with a glass of 100ml of coconut oil with a squeeze of lemon, eat various types of nuts for breakfast. Carefully measured, his lunch would be a salad with a lot of grated coconut, and his dinner would be a rich paneer dish with carrots and onions. After a difficult first 10 days, he said he stole longing glances when his family ate rice, after which he lost his craving for carbs at the end of 90 days. Various biochemical indices, including his thyroid hormone and uric acid levels, were restored. His HBA1C came down to 5.6 from 15.

Srinivas was able to see that his body was capable of handling diabetes, which was enough motivation for him to continue the diet, he says. “I never saw my blood sugar levels below 100 in the morning, so when you click the glucometer and it is 95, you don't want to eat anything. I'm happy living like this year. I mean, medicine is really tough on me, so I stopped my medications. I stop my diabetes medication”. End Quote. From the initial sensation of discomfort in the body, Srinivas experienced a new lease of life and energy. From medicine being the curative agent, the end to diabetes was situated in his embodied response.

Contrary to how solutions are seen as addressing the cause of the problem, I argue that reversal was a means by which people and the medicine they practise were inspired by a working backwards from the problem, and the problem in this case is an intimation of how things come to a possible end. With biomedicine, life ends with diabetes, whereas with reversal, diabetes ends much prior to death and may posit a death without diabetes. In Ayurveda, South Asian living ends are never ending. Living a good life is a constant striving that begins at birth, itself incited out of a humoral imbalance, and is concerned with a perfectible imperfect ability. In its extreme formulation, the goal of an Ayurvedic fully-informed life is immortality and working backwards from this goal involves reversing the course of time in order to rejuvenate the body's health is an imperfectable striving towards immortality, not merely the absence of disease or a static condition of well-being. This is very different from the BIOMEDICALLY informed, inherently applied retroactive problem solving and ultimately, backward looking approach to the question of health. Backward looking in the sense of finding defects, seeking causes, evaluating risks and searching for genetic markers rather than in any pejorative sense. Thus, apprehending disease as never ending is negotiable by reversing the course of time. I do not mean to suggest that Srinivasan's practises are Ayurvedic or Ayurvedically oriented, but rather they exemplify the socio-cultural embeddedness of the concern with the way life ends and must end, and working backward from the ideal ending through this rhetorical and discursive shift toward reversal programmes.

Disease comes to comes to meet its end where cure begins, but for a never-ending disease with a never-ending cure, particularly one caused by the transition of time, it is the parameters of time that need to be redefined. In conclusion, VRK and Nandita Shahs programmes promise an end to diabetes by reversing it through empowerment, empowering the body's inherent capacity to heal itself.

The desire for a cure or ending is, I argue, the central premise and motivation to pursue diabetes reversal. Reversal begins with people with diabetes stopping their insulin or removing their insulin-based medication and engaging in a reversal regimen, one that is prescribed by a dietary influencer or self-made. Based on research and advice from friends and relatives in biomedicine, finality to diabetes is brought upon only at death. This is both existentially and praxeologically disillusioning for people with diabetes, who must tentatively

work towards a progressive, mortal self that is always at risk. At this juncture, control which feels never ending and elusive, and the institutions, devices, and symbols that enact it are questioned in enacting democracies of clock time, model time and modern time. Medication does not just have a remedial function. Its presence indicates the contradictions of time. Rather than comply with the temporalities imposed by medication, my participants felt empowered to attune to and tinker with their diets and medication, questioning the one-size-fits-all approach that has failed to control their sugar time and again. To reverse is to engage in tinkering with the social, cultural construct of death. Being later rather than sooner, in shifting the conception of an end from deaths to immortality, different solutions emerge.

As reversal practises have shown us, the time of the body, including biochemical markers such as insulin levels, do not conform or align to Chronocratic timeframes. It is possible to suspend the body and its processes, slow them down, change them and reverse them, and outwit how linear time is indexed by the body.

Reversal rhetorically and discursively reverses the relational effects of the body's purported maladjustments to the spatial temporal rhythms of modern chronocratic life, as diabetes medication represents, indicates and enacts chronocratic time frames. It is not welcomed. Instead, the embodied self is privileged, and seen as requiring temporal empowerment through an attunement to itself. Reversal shows the power of the promise of a finality towards gaining a form of control that is imagined in the embodied self without diabetes. And that is my presentation. Thank you.