**Perspective**

**Justice, equality and liberty: Inspiration from the Indian constitution for the effective management of diabetes mellitus.**

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**Abstract**

Diabetes Mellitus (DM) could have been easily labelled as the ‘black swan’ of 21st century, had COVID-19 not been there. The modern diabetes-care in India grapples with multiple challenges. The twin enemies of uncontrolled hyperglycemia and unwanted hypoglycemia pose an ethical dilemma during the decision-making process of DM management. With unfavorable support system against this rapidly emerging public health system, we look forward to the Indian constitution for guidance. Apart from just euglycemia, every Indian living with DM, however, have some more requirements, and rights, that can be summarized with the help of three values of constitution, i.e. justice, equality and liberty. Together, these words remind us to practice accurate and appropriate diabetes care, delivered in a patient centered manner. Justice, equality and liberty should be incorporated into diabetes-care systems, and fraternity encouraged. This will ensure that we achieve the dreams of our founding fathers.

**Key words***: Equality; Ethical dilemma; Euglycemia; Justice, Liberty, Patient-centered-care.*

**Background**

Contrary to popular perception of Non-Communicable Diseases (NCD) as diseases of the upper strata of the community, they disproportionately affect the marginalized sections in almost every part of the world, but substantially more in the low and middle-income countries (LMIC).[[1]](#endnote-1) Amongst NCDs, diabetes needs no special mention. Indeed, diabetes is affecting (age-standardized prevalence) up to 8.5% of the global adult population, and majority of them hail from LMICs.[[2]](#endnote-2) In India, the prevalence of diabetes in adults aged 20 years or older was estimated to be 7·7% (6·9–8·4) in 2016, with significant regional variations.[[3]](#endnote-3) Untreated Type 2 diabetes mellitus (DM) deteriorates the quality of life and often substantially contributes to the premature deaths. Detection in early stages of the disease, lifelong treatment, along with lifestyle modifications helps in decreasing the mortality and morbidity.

However, the modern diabetes-care in India grapples with multiple challenges. The huge burden of undiagnosed and untreated disease coexists with over-labelled and mismanaged cases.[[4]](#endnote-4) Further, the use of suboptimal therapeutic regimens and preparations creates a paradoxical situation, where the physician constantly struggles to manage the twin enemies of uncontrolled hyperglycemia and unwanted hypoglycemia. These factors also pose an ethical dilemma during the decision-making process of DM management. Also, the ineffective management of DM as a results of non-adherence to the prescribed treatment by the people living with DM, and therapeutic inertia amongst the physicians are some of the the major hurdles towards achievement of the desired glycemic targets. This eventually leads to suboptimal blood-sugar levels and plethora of complications.[[5]](#endnote-5) In less progressed nations with high prevalence of illiteracy, it is difficult to make the community understand the implications of a chronic diseases such as DM, and increase compliance to the drug adherence. Alternative and complementary medicine take advantage of this lack of confidence in allopathic treatment and tends to get favorable media coverage and political patronage, in spite of the sheer lack of evidence in their favor. Unfounded hearsay is worsened by unregulated advertisement of unproven therapies and strategies for management of diabetes. The community at large tends to accept alternative medical therapy as being the gold standard in safety and tolerability. The concept of salutogenesis, as ingrained in traditional Indian systems of health is a major reason for this. The fact that traditional practitioners understand, and internalize, the biopsychosocial construct of health, end the concept of mind-body medicine, also contribute to this.[[6]](#endnote-6) Further, the physicians have failed in convincing the governments that the chronic diseases like DM represents a potential roadblock in the way towards universal health care in India. Unlike the communicable diseases like COVID 19, the actual effects of the NCDs may not pose as a national emergency. These diseases are “lifestyle diseases”, and are actually driven by corporate giants and national health policies. The products like cola, chips and pizzas are so imbibed in our lives, that it is near impossible to drive them out without the support from the governments.

In such a difficult scenario, we look forward to the Indian constitution for guidance. Said to be the longest constitution in the world, the Constitution of India sets out the guiding principles for the governance of India. With 395 articles divided into 22 parts, it is the supreme authority of the country. The three values that the constitution assures it’s citizens- justice, equality and liberty-should define our work as well. As responsible health-care professionals, we demand for the right to euglycemia for every Indian as a noble target. Apart from just euglycemia, every Indian living with diabetes, however, have some more requirements, and rights, that can be summarized with the help of three values of constitution.

* **Justice,** in the diabetes care scenario, would imply offering the correct screening diagnostic, monitoring and therapeutic tools to all those who are in need.[[7]](#endnote-7) It explains what it takes to ensure that everyone has the access to the means to manage the DM and its complications. We mentioned earlier, DM is a lifestyle disease. Factors like sedentary lifestyle, increased body weight, unhealthy diet, and substance abuse, are equally common, or may be more among the marginalized sections of the society. Prevention programs that promote a wholesome dietary intakes and physical activity can decrease the prevalence of DM and minimize the associated morbidity. Accessibility and affordability (NCDs receive only 1 percent of global health funding in LMIC) to the essential medicines and technologies for DM is also a challenge in LMIC, compared to the developed world.[[8]](#endnote-8) Specifically, India spends around 0.5% of its GDP on NCDs and Injuries and the gap between this frugal spending and Disability Adjusted Life Years (DALY) affects the economically vulnerable states most severely.[[9]](#endnote-9) Scientific community has appropriately labelled this disparity as the “social justice issue of our time.” There is an urgent need to change this trends, or else gains made from improvements in global health in last few decades will be fade away. These failings typify that a major chunk of DM cases in LMIC are undiagnosed or inadequately managed.

Therefore, the health administration and other stakeholders must concede to the disproportionate impact of DM on their vulnerable populations, and commit more support in terms of attention and financing to cope with the increasing burden of such chronic diseases. Or else, this can have significant human and economic consequences. Deficiencies in the accessibility to affordable treatment must be addressed, with the help of better logistic forecasting, distribution system, justifiable pricing, and capping if necessary. Moreover, research and development of low-cost DM management tools that are suited for LMIC must be encouraged. Common platform for different stakeholders to promote inter-disciplinary collaborations can create effective, affordable, and appropriate solutions that are need of the hour. Appropriate justice should also include penalization of the culprits as well. Therefore, increased taxations on tobacco-products and junk foods should be implemented, so that the raised prices can refrain the consumers from unstoppable consumption.[[10]](#endnote-10) Also, cities and workplaces should be made friendlier than ever to promote a healthy lifestyle and the International Diabetes Federation's (IDF) ‘diabetes prevention score for cities’ can be seen as a guiding light for all.[[11]](#endnote-11)

* **Equality** means that all persons seeking health care should be treated in a similar manner, without discrimination on any grounds. The Sustainable Development Goals (objective SDG 3.4) commits to reduce the NCD associated premature mortality by one-third by 2030, and promote mental-health and well-being.[[12]](#endnote-12) But, access to adequate treatment and management of DM is unfortunately limited due to gender-disparity, and societal power-dynamics. [[13]](#endnote-13) Previous studies have consistently reported an association between gender and socioeconomic disparities and prevalence of DM.[[14]](#endnote-14)This creates a set of concerns that are specific to women, and weaker sections of the population. Certain issues related to screening and management of vulnerable and high groups includes patchy delivery of opportunistic screening, concerns about unmanageable workload, high burden on the specialist care, and follow up of such patients.

Therefore, it pertinent that these groups should be fully aware of the available treatment options and access to services. Cost-effective interventions should be promoted to mitigate the rising burden of DM among these groups. In India, governments has offered financial assistance Ayushman Bharat scheme, that is envisioned to curtail this inequality, but it’s obvious effects are yet to be seen.[[15]](#endnote-15)

* **Liberty** supports the concept of patient autonomy and patient-centered care (PCC). PCC is defined as an approach to “providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions”.[[16]](#endnote-16) This involvement of the patients in the informed decision-making process should be the looked upon as the central principle of evidence based medicine for a anyone who is living with a chronic disease. However, it is particularly suitable to DM. Simply, PCC involves crafting therapeutic plans that keep the preferences, needs and values of patients in mind. This allows as much flexibility, or ‘liberty,’ as possible.[[17]](#endnote-17) In diabetes management, although absolute liberty (in terms of permitting potentially harmful lifestyle choices) may not be possible, many different monitoring and treatment options are available that allow the patient to play an active role in therapy, based on the principles of informed decision making. At last, it is patients who has to take a final call pertaining to their lifestyle choices; the disease management protocols, including the pharmacological and non-pharmacological interventions; and finally, the adherence to the treatment.

Also, depriving liberty in debilitated patients living with DM, who are not in a capacity to consent for their disease management protocols (for e.g. patients with cognitive impairment), is a serious matter of concern. In such a case, deprivation of liberty safeguards (DoLS), United Kingdom, clarifies it further, that such people may only be deprived of their liberty, if the protocols are made keeping in mind the best interest of such patient; and if there is no other alternative.[[18]](#endnote-18)

Responsible PCC reminds us that it is our duty to inform the person with diabetes about relevant aspects of his or her condition, so that appropriate decisions can be taken, to achieve optimal health.

Another word used in the Indian constitution is fraternity. The constitution endeavors to promote fraternity amongst its citizens. This selfless ideal echoes in our modern concept of the diabetes, team, peer-support, patient-provider interaction, and shared decision making. Keeping the person with diabetes as the centre of our focus, leader in health-care should facilitate incorporation of the constitutional goals in diabetes practice. Along with the right to euglycemia, the process of achieving euglycemia is equally important.

**Conclusions**

We have attempted to describe the core principals of Indian constitution and how they can be considered towards ethical and updated medical care in patients living with DM. Together, these words remind us to practice accurate and appropriate diabetes care, delivered in a patient centered manner. Justice, equality and liberty should be incorporated into diabetes-care systems, and fraternity encouraged. Meanwhile, it will be interesting to watch how NCDs, particularly DM, will decided the fate of development of our country in coming decades. As a responsibility, we should carefully tackle this crisis by taking inspirations from past or present, in any form available. This will ensure that we achieve the dreams of our founding fathers.

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