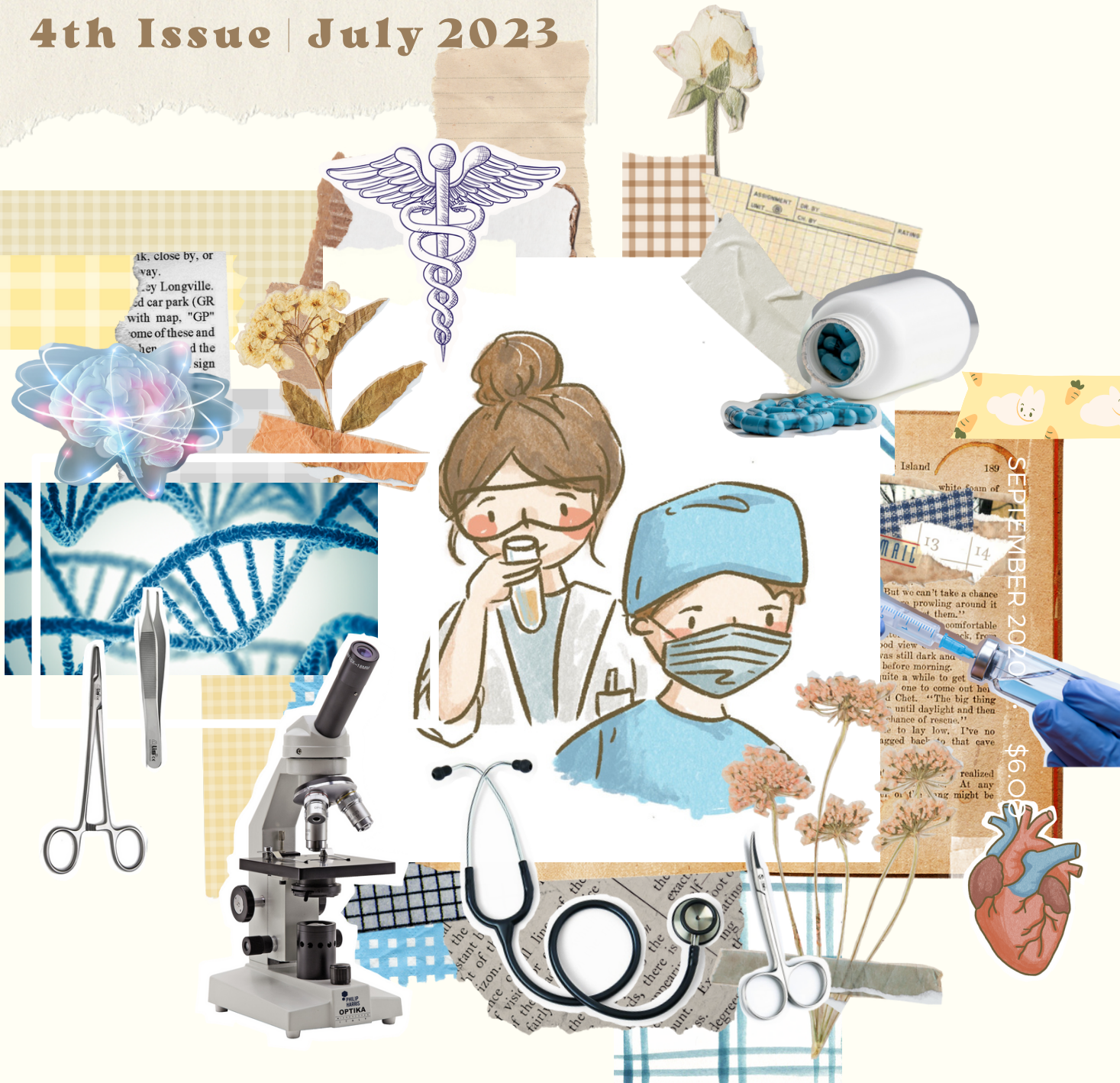


CU BIOETHICS

CUBE

4th Issue | July 2023



Note from Editorial Team

Welcome to the latest issue of CUBE, the medical student-teacher collaborative newsletter that brings you insightful discussions on ethics of clinical medicine, public health, and emerging technologies. Since our founding in June 2019, we have strived to foster a continual and inclusive discourse on these important topics.

At CUBE, our primary objective is to raise awareness of ethical issues in bioethics among our medical students. In this fourth issue, we were excited to receive the number of insightful submissions covering traditional and contemporary ethical issues. We believe that by exploring these complex ethical dilemmas, we can better prepare future healthcare professionals to navigate the challenges they may face in their careers. Through thought-provoking articles and discussions, we aim to spark critical thinking and self-reflection on one's values, helping our readers develop a deeper understanding of the ethical dimensions of medical practice. By fostering a collaborative environment where students and teachers can come together to share their knowledge, insights, and experiences, we hope to enhance the learning journey for all involved and contribute to the growth of medical education.

We would like to express our gratitude to our readers for their continued support. Your engagement, feedback, and suggestions inspire us to continuously improve and deliver content that is meaningful and relevant. We encourage and welcome you to actively participate in CUBE.

At last, the team gratefully acknowledges the generosity of the Faculty of Medicine and CUHK Centre for Bioethics for supporting the production of the 4th issue of the CUBE Newsletter

Table of Contents

2

Can Artificial Intelligence Diagnose Patients without a Doctor?

SHIN Wing Sum, M28

5

“A Gloomy Future”

LO Pak Yu, M28

8

Is Iran’s Human Kidney Market the Envy of the World?

LAM Hin Lai Ivan, M28, HKU

12

Thoughts to Chew on – From Soft Food to Feeding Tubes: Feeding the elderly with different severities of dysphagia

LAM Wai Ming Bella, M28

15

Ethical Issues in Huntington’s Disease Testing

CHAKRAVORTY, Madhavi, M28

18

Eugenics

YU Cheuk Ying Jasmine, M28

21

Is Smoking Morally Acceptable?

CHEUNG CH, M28

29

Mental Resilience and My Decision

LUO Yingsi, M27

31

Slow Code in CPR

CHAN Chun Sum, M28

34

The Dilemma between Technological Advancement and Medical Ethics: He Jiankui

CHOW Cheuk Lok, M28

37

Private Doctors in Hong Kong Lack Professional Obligation to Recommend COVID-19 Vaccines to Patients

HWANG Isabel, Senior Lecturer, SBS

Can Artificial Intelligence Diagnose Patients without a Doctor?

SHIN Wing Sum, M28

Artificial Intelligence (A.I.) has become a hullabaloo recently due to the launch of ChatGPT by OpenAI in late 2022 [1]. By definition, A.I. is software that chats with a human user using natural language processing and machine learning [2]. As on April 2023, one of the newest language models GPT-4 responded accurately to more than 90% of the questions posed in the medical examinations conducted in the United States [3]. In clinical practice, it was found that A.I.'s sensitivity is similar to an experienced radiologist. With a sensitivity of 96.1%, it could correctly detect patients with or without lung nodules [4] in a short period of time. As proven, A.I. seems extremely capable to diagnose patients independently. This article would explore the reliability of A.I. in different scenarios and the potential legal implications, biases in training data, and patient trust apart from only considering its ability and correctness.

Unlike other A.I. applications e.g., recommendation system in browser, if A.I. was involved in medical diagnosis it may lead to safety issues which could be critical. If A.I. were to make a single error in clustering patients and recommend a wrong course of action, we may need to pay heavily in terms of loss of a human life. This could be detrimental and not as simple as amendment of a technological tool using a bug fix. No technological advancement is worth loss of a human life, but if it were to happen, the related stakeholders, such as the family concerned, would probably demand a comprehensive explanation and may also consider legal recourse. We do not have a system to deal with A.I. related medical errors at the moment which makes the situation even more complex. In case of medical errors made by A.I., the glaring dilemma is - who should be held guilty?

It is not possible to interrogate a robot and penalize it. We cannot blame the software developer either. The developer only designed, implemented, and fed the data into the A.I., but is not involved in the diagnostic procedure. He or she is not empowered to predict the outcome of A.I. or the medical decision based by its use.

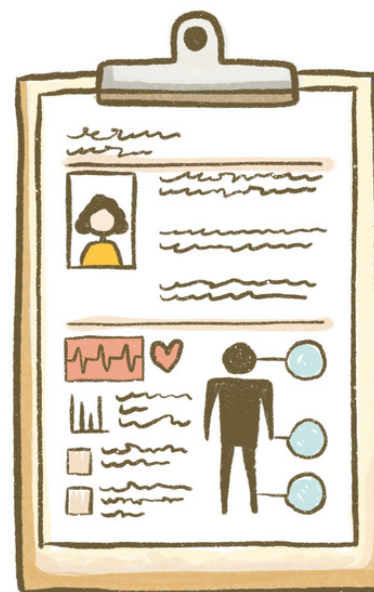
Hence, the reliability issue must be delved into seriously. Indeed, the reliability of A.I. needs to be way higher than human capability before allowing it to replace health care professionals to reduce the possibility of any medical error significantly, which only means a very high probability that the A.I. diagnostic system must "operate as expected over a specified time interval" [5, p. 18].

Another main issue questioning A.I.'s reliability arises when dealing with bioethical issues during patient care. Empathy and managing bioethical challenges with utmost fairness are core values imbibed by any healthcare professional. If we were to allow A.I. to be involved in medical practice independently, we must ensure it acquires these qualities. Can an A.I. machine understand bioethics and inculcate its principles in medical practice? First, at the very basic level, bioethics involves a huge component of "common-sense ethics", such as "hurting a person is wrong". In fact, both empathy and bioethics could likely be mimicked by the A.I. by feeding data to A.I. for learning. However, there is a chance that A.I. does not have an answer for certain scenarios, which corresponds to relatively low reliability. Such a situation must be taken into account. It would be unacceptable to have answers such as "Sorry I do not have a solution for that", in medical practice as seen in other digital assistants on cell phones.

Apart from reliability, biases may also question A.I.'s ability to work independently. During clinical decision-making, doctors, as humans, are prone to be affected by implicit biases such as race, gender, obesity, and age [6]. It was reported that doctors with a high implicit bias against certain races such as Blacks tend to have relatively poor interaction with them, and certain biases do impact diagnosis and recommended treatments [7]. Such implicit bias may be hardly overcome as even the doctors themselves may be unaware of them. It has been observed that A.I. could reduce the issue of implicit bias, but it needs to be remembered that may be affected by a different kind of bias, namely - algorithmic bias. A.I. outputs results, by analyzing the existing data through a machine learning algorithm. However, where did the data come from? Would there be any selective bias firsthand? For example, if the A.I. machine algorithm was trained in the United States only, the data may be only limited to that place. The same holds true for different socioeconomic groups. Data is not available uniformly across populations from different socioeconomic backgrounds [8].

Moreover, the implementation of A.I. i.e. algorithm or deep learning is unknown to the public [8]. We have no idea how the A.I. determines the clinical outcome, leading to a lack of trust in A.I. Without transparency and trust, it would be hard for the public to believe in A.I. and let it be a part of crucial medical decision making for an individual, contrary to, the doctor-patient relationship which has been on mutual trust and belief. Human trust is built upon both verbal and non-verbal interaction, including eye contact and body language. Patients trust that doctors would diagnose their disease to the best of their ability and recommend the best treatment modality which may not hold good with A.I.

Undoubtedly, A.I. has been developing rapidly in this recent decade. However, its reliability, algorithmic bias, and trust among the public may pose a huge challenge in revolutionizing the medical field to allow it to diagnose patients independently in the absence of a doctor.



References

1. OpenAI. Introducing ChatGPT 2022 [Available from: <https://openai.com/blog/chatgpt>].
2. Jungwirth D, Haluza D. Artificial intelligence and public health: an exploratory study. *International Journal of Environmental Research and Public Health*. 2023;20(5):4541.
3. Brueck H. The newest version of ChatGPT passed the US medical licensing exam with flying colors — and diagnosed a 1 in 100,000 condition in seconds. *Insider*. 2023.
4. Abadia AF, Yacoub B, Stringer N, Snoddy M, Kocher M, Schoepf UJ, et al. Diagnostic Accuracy and Performance of Artificial Intelligence in Detecting Lung Nodules in Patients With Complex Lung Disease: A Noninferiority Study. *Journal of Thoracic Imaging*. 2022;37(3):154-61.
5. Carlo Ghezzi MJ, Dino Mandrioli. *Fundamentals of Software Engineering*: Prentice Hall; 2003. 604 p.
6. Chapman EN, Kaatz A, Carnes M. Physicians and implicit bias: how doctors may unwittingly perpetuate health care disparities. *Journal of general internal medicine*. 2013;28(11):1504-10.
7. FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. *BMC medical ethics*. 2017;18(1):1-18.
8. Panch T, Mattie H, Atun R. Artificial intelligence and algorithmic bias: implications for health systems. *Journal of global health*. 2019;9(2).

“A Gloomy Future”



LO Pak Yu, M28

After receiving a notification, Cindy opened her mailbox with surprise. Inside the file attachment was a report filled with a random mix of numbers and words that she could not comprehend, such as 2-220435496-G-GC or APOE, along with a long list of references in a tiny font. She did not know what they meant, only knowing it was a direct-to-consumer genetic test (DTCGT) she had bought a few months ago. Without a clue in her head about the meaning of the results, she approached her family doctor for more answers.

Unfortunately, the answers that she received from her doctor were unexpectedly distressing. Upon viewing the report, the doctor patted her shoulder, apologetically informing her that she had inherited an APOE e4 gene, a gene commonly associated with a higher risk of Alzheimer's disease (AD) [1]. She could only sit there in shock, not knowing how to respond. Now, she was forced to worry about whether she could be at a higher risk of getting AD in the future. Naturally, the question that one would ask is-- what would have happened had she had not ordered a DTCGT to begin with?

Direct-to-Consumer Genetic Tests (DTCGT)

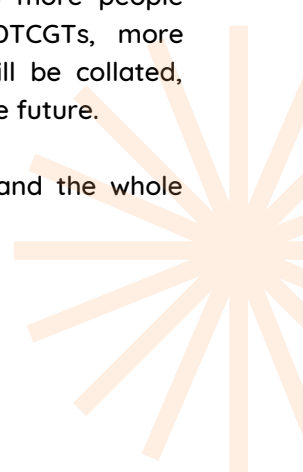
Direct-to-Consumer Genetic Tests are a special kind of genetic test. Traditionally, when a doctor suspects that a patient has a certain risk for developing diseases such as AD or dementia, a genetic test will be ordered for the patient to confirm their diagnosis, with results (influencing the rationale behind) being the deciding factor further treatment. However, DTCGT completely bypasses this process, allowing customers to order genetic tests directly from a DTC company. Customers usually take a saliva sample or oral swab, much like that of a PCR test done for COVID-19, before the sample is sent for analysis [2]. There is still debate on the benefits and risks associated with DTCGT, which I will explore in more detail below.

Benefits of DTCGT

Firstly, one of the major benefits of DTCGT is that it allows people to know more about their genetics and to thus gain control over their own health. For example, CircleDNA, a DTCGT company in Hong Kong, says that their tests allow customers to know more about their caffeine sensitivity, obsessions with washing, cleaning and even about their IQ (cognitive test performance) and EQ (emotional intelligence) [3]. After obtaining these results, customers can modify their lifestyle to achieve a better health. Moreover, these genetic tests may also be helpful for adoptees in obtaining more information about their birth parents and ancestry. AncestryDNA, 23andMe and FamilyTreeDNA are some of the DTCGT companies which offer such tests [4]. This is particularly significant for individuals who have been separated from their families a very young age, and now having grown up, want to find out about who their parents were. Hence, genetic testing and comparing with the genomic database, can hopefully assist them in reconnecting with their birth parents.

Lastly, the rapid development of DTCGT may also serve to boost scientific research in the field of human genomics. As a result, as more people choose to purchase and use DTCGTs, more efficient scientific development will be collated, ultimately benefiting mankind in the future.

However, is that really the case and the whole picture for DTCGT?



Negatives of DTCGT:

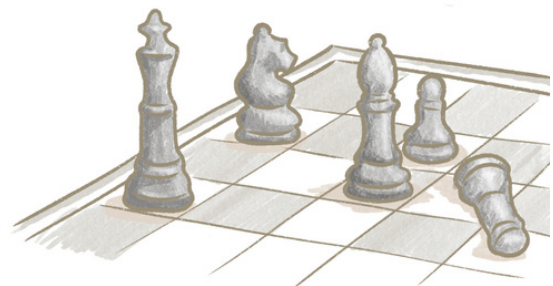
To begin with, one obvious downfall with DTCGT is that physicians are not actively involved in the process of genetic testing itself, but rather taking up a passive role. For members of the public without any background in genetic education, the genes detected are just numbers and may not be easily understandable as it is rather like explaining astrophysics to a layman. If the customer receives the test and proceeds to make a clinical decision without any proper medical guidance, then wrong decisions, according to clinician suggestions may be made that may further harm customers themselves. As a side note, some DTC genetic tests may also have falsely positive or falsely negative results, leading to the potential spreading of misinformation.

What is even more concerning is that DTC tests are not standardized. Different DTC testing companies may test different genes of the same disease which would thus yield different results. Furthermore, the results of DTC tests may vary for different populations. Varying populations will have different genetic compositions and hence there will be differing genes targeting the same disease. For instance, the “23andMe” genetic health risk report for BRAC1 and BRAC2 only checks for disease variants mainly related to people of Ashkenazi Jewish ancestry, meaning that results will be less accurate for customers of other ethnicities, as there may still be many genes left under the radar and not checked [2]. Therefore, some genetic tests may return negative, when the person actually possesses a gene that indicates a higher risk of getting the disease.

We also need to mention the emotional trauma that the customers may be subjected to after their genetic test. Of course, it is always delightful to find that one has a high IQ or EQ or a tendency not to get bald, but what if the test results returned highlighted that an individual had a high risk of neurodegenerative or other lifelong diseases? Not only do customers themselves feel depressed, but together with their families they may become unnecessarily anxious as even when a higher risk does not correlate to a 100% chance of getting the disease.

Finally, most genetic diseases are polygenic rather than monogenic, meaning that there are many genes with many variants instead of a mutation on one single gene causing the disease. For example, familial hypercholesterolemia is a monogenic disease [5]. Meanwhile, polygenic factors are more heavily influenced by environmental and lifestyle factors. Hence, even if the genetic test returned positive, it does not automatically mean that an individual will develop the disease. Like if a patient is detected that he or she may have a higher risk of Alzheimer's disease, but he or she actively trains his or her brain such as participating in activities such as chess or mathematics, will they still have such a high tendency to develop AD? Similarly, if CircleDNA's tests reflect a low EQ score genetically, could you try to train yourself to raise it? The answers to these questions are not always as straightforward as they may seem.

In conclusion, we need to always remember this: you are not (only) defined by your genetics.



References

1. Mayo Foundation for Medical Education and Research. The role of genes in your alzheimer's risk. Mayo Clinic. 6 May, 2021.
2. Horton R, et al. Direct-to-consumer genetic testing. The BMJ. 16 October, 2019.
3. CircleDNA. Diet. 11 April, 2023.
4. Brandon Colby MD. DNA and adoption. Sequencing.com. (n.d.).
5. Mariano C, Alves AC, Medeiros AM, Chora JR, Antunes M, Futema M, Humphries SE, Bourbon M. The familial hypercholesterolaemia phenotype: monogenic familial hypercholesterolaemia, polygenic hypercholesterolaemia and other causes. Clinical genetics. 2020 Mar;97(3):457-66.

Is Iran's Human Kidney Market the Envy of the World?

LAM Hin Lai Ivan, M28, HKU

Here is a simple experiment. If one inputs the search terms 'need kidney' on any social media platform, such as Facebook, one will find thousands of public posts in search of a kidney donor. One post writes 'Urgent need kidney donor O+', and another says 'I need a kidney, help change my life'. Some users also include a short autobiography, whilst others describe such bleak personal circumstances that their posts are like farewell letters, or a plea, to leave a lasting mark in the world before their departure. It seems that there is no end in sight for those on the waiting lines for kidney transplants, and the prospects for those with renal failure can be so dark and perilous, that the only word to describe this would be futility.

A thought-provoking case

The only country that has been able to circumvent these problems is Iran. Due to the lack of an infrastructural framework to procure cadaveric organs during the Iran-Iraq in the late 1980s, the Iranian government permitted and approved the sale of one's own kidneys in 1988 [1]. The success of the program was extraordinary, and by 1999, Iran had eradicated the waiting list entirely [2].

This phenomenon begs the question, is Iran's kidney market the envy of the world?

The notion of a legal human organ market remains highly controversial. The World Health Organization condemns commercial transplants on the grounds that it 'exploits the poor' and corrupts the value of humanity. The legislative strategies of most jurisdictions also take a draconian view towards organ commercialization. Any transactions that involve money or remuneration can elicit legal repercussions for both buyers and sellers, ranging from a fine and three months of imprisonment in Hong Kong, or up to ten years of imprisonment in India [3,4]

The view that human organ sales are wrong, often draws from the evidence that emerged from India in the 1990s, which depicted epidemic abuse and coercion of vulnerable individuals into kidney selling in the black market [5]. It was reported in The Journal of the American Medical Association that 79% of the local kidney vendors in India would not recommend others to sell their kidneys. However, the results seem to be different if there was a legal basis for selling kidneys [6].

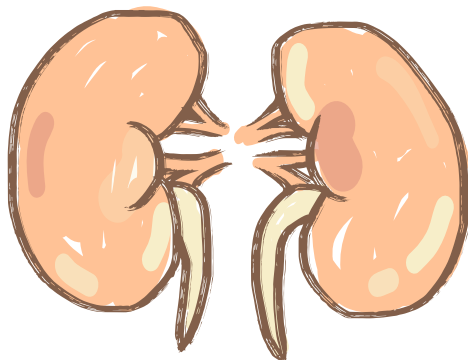
A study published in the Iranian Journal of Kidney Diseases reported that 86.5% of vendors in Iran were 'completely satisfied' after surgeries. Regret occurred in a mere 1.5% of vendors, such a rate is commensurable to the estimated regret rate of 2.1% found amongst kidney donors in the US [7,8]. These results starkly contrast to the ones seen in India, and there are several reasons why. Firstly, the kidney market in Iran follows a state-sponsored system where the government acts as the monopsony - the sole purchaser of kidneys. The system matches donors and recipients based on their compatibility, blood type, age, and other criteria for successful outcomes, rather than to the highest bidder. Secondly, applicants for vending must meet numerous stringent criteria to register as a potential kidney seller, which involves being between the ages of 20 and 35 years old, having an immediate family member present to vouch for their consent, and passing clinical evaluations for perioperative medical risks. Furthermore, some charity groups regularly intervene to subsidize poverty-stricken recipients and promote fair distribution of kidneys. Moreover, the government provides one year's worth of free health insurance to the vendor and covers the costs of medical facilities and the staff. Additionally, vendors and recipients must also be Iranian to prevent transplant tourism. Finally, vendors are guaranteed approximately 4,600 USD per kidney, although they are permitted to request more from the recipient [9].

Altogether, the arguments of transplant tourism, physical and forceful coercion, inequality towards poor recipients, and endangerment of vendors become irrelevant while considering the legal instruments that Iran has established. Iran's model fundamentally allows the government to protect donors and recipients from the perils of a black market.

Why might Iran's kidney market be unethical?

Although Iran's model offers to eliminate the waiting list and the provide protection to kidney vendors, it does invoke two main ethical dilemmas, namely the lack of free consent and the dehumanization of humanity. For the former, it is argued that the monetary compensation is incongruent with the principle of individual autonomy, as those in poverty, who may also be uneducated, are likely to make the irrational decision to undergo kidney donation merely for financial gain.

But take the case of a Turkish peasant who, in 1989, attempted to sell his kidney at a private hospital in London to fund his daughter's treatment [10]. His daughter was suffering from a fatal medical complication, and without the funds for surgical intervention, she faced a high mortality risk. To any parent, the choice between losing a kidney and the death of a daughter could only end one way. The father was also fully informed of the risks and acted voluntarily, and the sale was motivated by the need to address a financial emergency to avoid a worse alternative. Why then, could the father not give consent to the sale [11]?



Even in clinical practice, the requirement of mental competency to produce informed consent involves having the ability to retain, understand, and weigh the advantages and disadvantages of the relevant information presented, in order to reach a decision [12]. If the Turkish man met those criteria, the consent should have been deemed valid. Merely being under economic hardship does not waive one's right as an autonomous individual to produce meaningful consent [11]. As argued by R. Kishore, President of the Indian Society for Health Laws and Ethics, organ sales "save at least two human lives, one from a terminal illness (the recipient), the other from hunger (the donor)" [13].

'Summer Special! Human Kidneys at \$4,600!'

Fortunately, kidneys in Iran are not advertised like this, but it does encapsulate the second moral dilemma of Iran's kidney market: the objectification of humans as a fungible asset that can merely be replaced with cash. The sale of a kidney, or any intrinsic part of the human body, is a demeaning act, and the utilitarian gains yielded would be outweighed by the cost of the social values we lose along the way. Consider this: the Turkish man wanted to sell himself into slavery to acquire funds for his daughter's treatment. Even if he made a voluntary, well-informed, and consented decision, the act is in itself incompatible with the basis that humans have an incommensurable value [14]. Permitting such a trade would invoke a public outcry, and by the same token, the sociomedical advantages that a kidney market could bring about pales against the conscience values it violates, which is why in most countries, the legal interpretation could not be more absolute: kidney sales should be prohibited

Conclusion

Perhaps Iran's kidney market model is not the world's envy, after all. Instead, we could rethink the staunch view that all financial incentives implicate gross moral indecency. We can, for instance, maintain the public rhetoric that the direct exchange of kidneys for a lump sum of cash is illegal, whilst proposing alternative quasi-commercial organ markets. One example was tested during the 1990s in the U.S. state of Pennsylvania when senators introduced a trial 'futures market' in which the government guaranteed a stipend to the families of the donors after their death [15]. Other incentives could involve government schemes that offer premium health insurance coverage, tax benefits, or increased pensions for organ donors. These proposals manoeuvre the price tag away from the donor whilst retaining a strong potential to bolster donation rates.

Ultimately, even though there is no clear-cut solution at hand, the most ardent supporters and revolted critics of Iran's model come to serve the same moral mission - to brighten the prospects of those on the waiting list. And in the fullness of time, alongside further research, we can assess the true potential of financial incentives as a panacea to the organ shortage crisis, and transform this twinkling vision into a shining reality.

References

1. Major RW. Paying kidney donors: time to follow Iran? *Mcgill J Med*. 2008 Jan;11(1):67-9.
2. Hippen, Benjamin E. Organ Sales and Moral Travails: Lessons from the Living Kidney Vendor Program in Iran. *Cato.org*. CATO Institute, 2008. 05 Aug. 2021.
3. Section 4. Prohibition of Commercial Dealings in Human Organs. Cap. 465 Human Organ Transplant Ordinance. HK e-Legislation.
4. Section 19. Prohibition of Advertising. Transplantation of Human Organs and Tissues Act, 1994.
4. Rothman DJ, Rose E, Awaya T, Cohen B, Daar A, Dzemeshevich SL, Lee CJ, Munro R, Reyes H, Rothman SM, Schoen KF, Scheper-Hughes N, Shapira Z, Smit H. The Bellagio Task Force report on transplantation, bodily integrity, and the International Traffic in Organs. *Transplant Proc*. 1997 Sep;29(6):2739-45.
5. Nejatiasafa AA, Mortaz-Hedjri S, Malakoutian T, Arbabi M, Hakemi MS, Haghighi AN, Mohammadi MR, Fazel I. Quality of life and life events of living unrelated kidney donors in Iran: a multicenter study. *Transplantation*. 2008 Oct 15;86(7):937-40.
6. Heidary Rouchi A, Mahdavi-Mazdeh M, Zamyadi M. Compensated living kidney donation in Iran: donor's attitude and short-term follow-up. *Iran J Kidney Dis*. 2009 Jan;3(1):34-9.
7. Holscher, C.M., Leanza, J., Thomas, A.G. et al. Anxiety, depression, and regret of donation in living kidney donors. *BMC Nephrol* 19, 218 (2018).
8. Tabarrok, Alex. "The Meat Market." *The Wall Street Journal*, Dow Jones & Company, 8 Jan. 2010.
9. Barr, Robert. "London Kidneys-for-Cash Scandal Prompts Action to Ban Sale of Organs." *Los Angeles Times*, Los Angeles Times, 16 July 1989.
10. Richards, Janet Radcliffe. 11 Consent With Inducements: The Case of Body Parts and Services. in Franklin Miller, and Alan Wertheimer (eds), *The Ethics of Consent: Theory and Practice* (New York, 2009; online edn, Oxford Academic, 1 Feb. 2010).
11. Grisso T, Appelbaum PS. Assessing competence to consent to treatment: a guide for physicians and other health professionals. New York: Oxford University Press; 1998.
12. Kishore RR. Human organs, scarcities, and sale: morality revisited *Journal of Medical Ethics* 2005;31:362-365.
13. Wilkinson, S. Commodification Arguments for the Legal Prohibition of Organ Sale. *Health Care Analysis* 8, 189-201 (2000). <https://doi.org/10.1023/A:1009454612900>
14. Pennsylvania Charatan F. Pennsylvania plans to reward organ donation. *BMJ*. 1999 May 22;318(7195):1371.

Thoughts to Chew on – From Soft Food to Feeding Tubes: Feeding the elderly with different severities of dysphagia

Slices of meat fresh off of the cutting board, gusts of steam as a hot bun is broken in half... surely most would agree that relishing in aromatic and flavourful delicacies is one of the greatest joys of life. Whatever type of cuisine it is that your palette craves, the thousands of restaurants lining the streets of Hong Kong certainly have something to your liking.

Now, try to picture that one day all this vanishes into thin air.

What is left is day after day of tasteless porridge and puree, completely drained of any trace of the delightful enchantment that food used to contain. Every day, the same exact meals are pushed into your room on a trolley and spoon fed to you, as though it were just prescribed each day as part of medication. And what is this tasteless, slimy blob? Water? Thickened water is, unfortunately the only option around to quench your thirst. Can you possibly imagine that in a food haven like Hong Kong, this is the reality that many senior citizens must wake up and face each day?

Dysphagia, meaning difficulty in swallowing, can stem from various causes including neurological problems, impaired muscle function and stroke. It is also commonly observed in the late stages of dementia. There are different types of dysphagia, which correspond to problems in differing anatomical positions throughout the passage from the mouth to stomach [1]. This common condition amongst the elderly significantly hinders their ability to consume a meal safely, let alone enjoy it. It is thus worthwhile to dive deeper into exploring ways to feed those with different severities of dysphagia, whilst not undermining their comfort and dignity.

LAM Wai Ming Bella, M28

A two-year study conducted by the University of Hong Kong revealed that over 60% of those in elderly homes experienced varying degrees of swallowing difficulties [2]. In Hong Kong, most elderly homes serve pureed meals, which involve mincing and processing food into a soft paste. Whilst this can minimize the need for chewing, it often means settling for bland and repetitive menu choices [3]. It is not unheard of that certain elderly citizens suffer from malnutrition after refusing to consume such meals.

Both preserving dignity and quality of life are of great importance when it comes to treating geriatric citizens. A handful of catering companies and NGOs in Hong Kong are striving to improve the culinary experience of elderly individuals with swallowing difficulties. One example includes a group of local university students that have devoted themselves to perfecting recipes for the elderly that are both nutritious and a delight to the palate. They have gone to great lengths to make pureed food more visually appealing, such as molding them into their original forms, designing various set lunches, and even creating festive mooncakes in specific textures [4].



Alas, a menu revamp is only a small step in alleviating the woes of patients with dysphagia. Patients in elderly homes and their family members have conveyed that services such as swallowing assessments and mealtime assistance are insufficient [5]. On the other hand, some have also advocated for the government to provide funding for nursing homes to employ in-house speech therapists, in order to continuously assess the oesophageal muscle conditions of residents. Calls for improving the training of frontline workers in nursing homes have also arisen with the aim of improving carers' knowledge on diseases that are linked to weakened swallowing and poor emotional wellbeing.

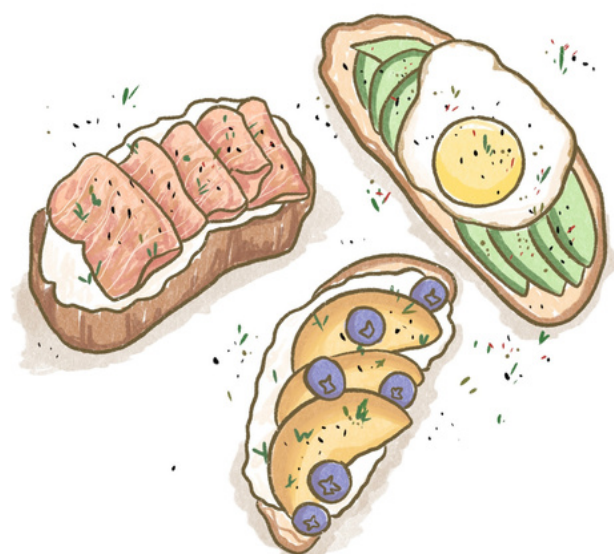
Furthermore, dysphagia may progress to a point where patient safety is jeopardized. Those with improper swallowing have an exceptionally high risk of developing aspiration pneumonia and other life-threatening complications. Hence, tube-feeding is also a viable option for them to receive necessary nutrients. It is worth noting that implementing enteral feeding in these scenarios is often permanent as prolonged usage of tube feeding may result in further deterioration of muscles used in swallowing. [6] However, elderly individuals facing these choices often lack the capacity to make informed decisions due to conditions such as severe dementia, and thus family conflicts may arise from trying to reach a consensus on making surrogate decisions for these patients. One may ponder on whether it is worthwhile to prioritize safety and prolong life at the cost of forgoing something as basic as the ability to eat.

Some may opt for alternatives including comfort feeding – a method where an individual is fed by hand until they wish to stop. Here, the autonomy and comfort of the elderly is emphasized, rather than the quantity of food consumed. This method, however, is plagued by many practical issues. For instance, small amounts of food usually have to be offered frequently throughout the day, which is time-consuming and demands intense manpower.

The gift of being able to savor every bite is not to be taken for granted. Instead of merely fulfilling nutritional requirements to keep the elderly fed and alive, a meal should also be able to convey warmth and satisfaction. More thought and effort should be put into meals for the elderly, and will certainly be greatly appreciated by our senior citizens, whose lives will be brightened up as a result.

References

1. Aslam M, Vaezi MF. Dysphagia in the elderly. *Gastroenterology & hepatology*. U.S. National Library of Medicine; 2013.
 2. Ageing in place: Safe swallowing in the frail elderly living in the community - press releases - media - HKU. The University of Hong Kong. 25 Aug, 2015.
 3. "Care Cuisine" for the elderly. 香港社會服務聯會. 27 July, 2017.
 4. 【軟餐社企】. Hong Kong Social Enterprise Challenge. 25 Sep, 2020
 5. HKU Swallowing Research Laboratory releases survey findings on "facilitate aging in place: Safe swallowing in the frail elderly living in the community and in nursing homes" - press releases - media - HKU. The University of Hong Kong. 03 Dec, 2013.
- Finucane TE, Christmas C, Travis K. Tube feeding in patients with advanced dementia: a review of the evidence. *Jama*. 1999 Oct 13;282(14):1365-70.



Ethical Issues in Huntington's Disease Testing

CHAKRAVORTY, Madhavi, M28

Huntington's Disease (HD), affecting an estimated 3 to 7 in 100,000 people of European descent (["https://medlineplus.gov/genetics/condition/huntington-disease/#inheritance"](https://medlineplus.gov/genetics/condition/huntington-disease/#inheritance)), is a degenerative brain disease that progresses over time and impairs both cognitive and motor functions. In the late stages of the disease, HD patients are totally dependent on others. It may take 15 years or longer from initial symptoms to reach the late stage. Death occurs typically from complications, not from HD itself. Most people with HD develop motor symptoms in their forties and fifties. About 10% have motor symptoms after the age of 60 and about 10% have juvenile onset HD where symptoms manifest before age 20 (["https://hdsa.org/what-is-hd/overview-of-huntingtons-disease/"](https://hdsa.org/what-is-hd/overview-of-huntingtons-disease/)).

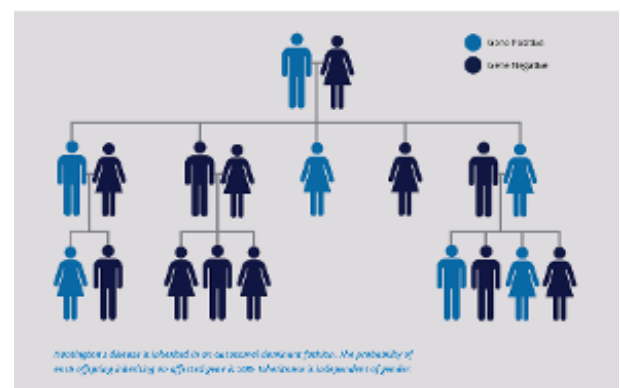
Mechanism of HD and its inheritance:

HD is caused by an inherited mutation in the HTT gene which provides instructions for making a protein called Huntingtin. One region of the HTT gene contains a particular DNA segment where three DNA building blocks (namely Cytosine, Adenine, and Guanine) are repeated.

The number of CAG repeats in normal individuals are between 10-25, whilst HD patients have 40 or more CAG repeats. Long CAG repeats lead to long Huntingtin segments that are cut into toxic fragments. The fragments accumulate in the brain neurons and disrupt normal functions – see diagram below

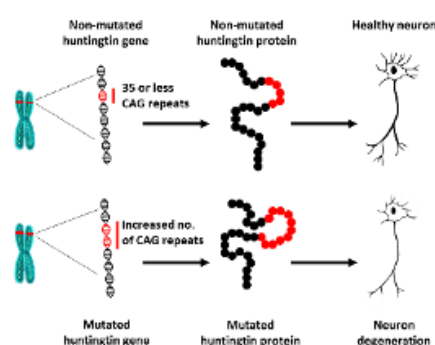
["https://medlineplus.gov/genetics/gene/htt/#conditions"](https://medlineplus.gov/genetics/gene/htt/#conditions).

HD is inherited in an autosomal dominant fashion, with the expanded copy of the HTT gene from one parent being sufficient. Therefore the probability of each offspring of a child with HD inheriting the expanded HTT gene is 50%. If an offspring does not inherit the expanded gene, they will never develop or pass on HD – see diagram below (["https://hdsa.org/what-is-hd/history-and-genetics-of-huntingtons-disease/who-is-at-risk/"](https://hdsa.org/what-is-hd/history-and-genetics-of-huntingtons-disease/who-is-at-risk/)).



HD testing and accuracy

HD is detected through a genetic test from a person's blood sample. The genetic test detects the number of CAG repeats in the HTT gene. The test is considered to be close to 100% accurate. It was one of the first genetic tests to be developed. The test can reveal if the person carries the HD expansion, but it cannot determine when the disease will begin, or how rapidly it will progress.



Ethical issues related to HD testing

Testing can be done at various stages, with different ethical implications:

Testing stage	Key ethical issues
Exhibiting HD symptoms	<ul style="list-style-type: none">• None. Confirmation provided by test.
Healthy person	<ul style="list-style-type: none">• Discussed below. Called Predictive Testing
Pre-natal test	<ul style="list-style-type: none">• Decision to abort the fetus• Test the parents and grandparents if they do not exhibit symptoms (one test, “multiple people”)

Ethical issues of Predictive Testing for HD

A healthy person may want to take a predictive test for HD for reproductive decisions, financial planning or making career choices, especially if there is prior HD history. There are some key ethical issues:

1. Psychological issues – A positive test result can cause distress, especially because it is not known when the symptoms will arise and their severity. Other family members, particularly siblings, children and parents will be impacted if they have not been tested previously. Whilst testing is a deeply individual decision, results will affect the family.
2. Testing should not be “forced” – Individuals should be free to take the test or not. They should give consent after they have been provided with sufficient information.
3. Right “not to know” the result – Even after providing their consent, individuals should have the right to change their mind and not to know the result.
4. Children- Children should not be tested. They are not capable of making testing decisions as individuals (do not have autonomy), and there is no medically compelling reason to do so because about 10% HD cases have juvenile onset HD.

Addressing the ethical issues and discrimination

To address the ethical issues stated above, geneticists in many countries have put in place strict protocols for HD testing, which include genetic counselling, mental health assessment and neurological examination prior to the testing, as well as in-person disclosure of the results and regular follow-up after testing. The tests can only be conducted in authorized centers.

A study of people with a family history of HD in Canada in 2017, showed that nearly 40% of non-symptomatic individuals studied reported some form of discrimination related to HD. Specifically, 30% revealed that the discrimination came from insurance companies and 15% reported discrimination from other family members. Moreover, some subjects also reported discrimination in both social and work settings. Thus, multiple countries have passed legislations or rules prohibiting discrimination based on genetic tests, with some examples listed below:



Genetic Information Non-Discrimination Act (GINA): employers and health insurers prohibited from using genetic information to discriminate against individuals (["https://www.genome.gov/genetics-glossary/Genetic-Information-Nondiscrimination-Act"](https://www.genome.gov/genetics-glossary/Genetic-Information-Nondiscrimination-Act))



The German Diagnostics Act (GenDG): Employers and insurance companies cannot ask for genetic tests (["https://www.gesetze-im-internet.de/genDG/"](https://www.gesetze-im-internet.de/genDG/))



Genetic Nondiscrimination Act S.C. 2017, c.3: Insurance companies are prohibited from using results of genetic tests to determine coverage or pricing (["https://laws-lois.justice.gc.ca/eng/acts/G-2.5/Page-1.html"](https://laws-lois.justice.gc.ca/eng/acts/G-2.5/Page-1.html))



The Code on Genetic Testing and Insurance: Agreement between government and insurers not to take into account results of genetic tests except in cases of high value life insurance (["http://www.genewatch.org/sub-529180"](http://www.genewatch.org/sub-529180))

Eugenics

YU Cheuk Ying Jasmine, M28

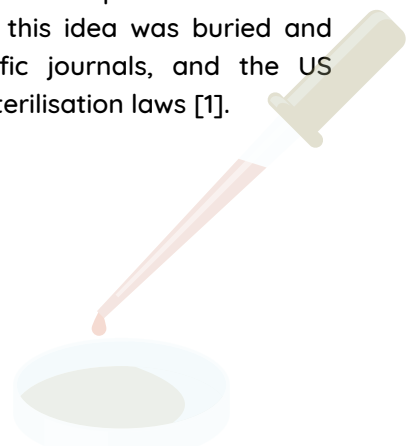
Imagine if we could manipulate human health conditions, personality, traits, or mental and physical fitness levels. What would our world be like? Eugenics is one of the top bioethical issues in biological advancements, which is the selection of desired heritable characteristics to improve future generations [1]. Francis Galton invented this term that advocated for a system to allow 'more suitable races or strains of blood a better chance of prevailing speedily over the less suitable.' Whilst this concept was established in the late 19th century and began to gain popularity in World War I, there are still hints of eugenism in modern reproductive technology today.

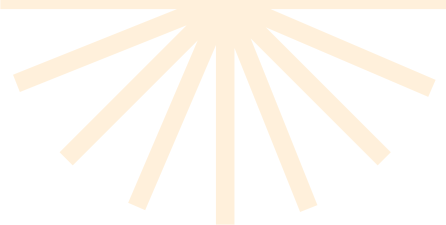
History

The concept of eugenics was first discussed by several well-known philosophers, such as Plato and Galton, who depicted a society where efforts are undertaken to improve human beings through selective breeding. Later on in 1865, Gregor Mendel demonstrated the laws of heredity which influenced Charles Darwin greatly, and led to the latter proposing that selective breeding should be used to advance the human race. The advancement of eugenics led to the term positive eugenics, which refers to the promotion of proliferating 'good stock', as well as the term and negative eugenics, which suggests prohibiting marriage and breeding to 'defective and disadvantageous individuals'. During the early 1900s, eugenics became more widespread and more seriously studied throughout the globe. For example, the eugenics movement broke out in the United States, and the Eugenics Record Office was established in 1910.

It created a national repository and clearing house for eugenics information by collecting an index of traits in American families throughout the US and investigations into the inheritance patterns of distinct human characteristics and diseases, advising on the eugenic suitability of proposed marriages [1]. After World War I, the US found out that immigrants from Europe were contributing to too many 'genetically and socially inferior people'. Their classification included the insane, the criminalistic, the epileptic, the inebriate, the diseased (tuberculosis, leprosy and syphilis), and the disabled (blind, deaf, deformed and crippled). This led to the establishment of a restrictive system where every prospective immigrant would be interviewed before entering the country to control the 'reproductive stock of the country eugenically' [1].

The peak of the eugenics movement occurred in the early 1930s. Nazi Germany adopted American measures to identify and selectively decrease the presence of those that were 'socially inferior' through involuntary sterilization, which led to World War II and the Holocaust. They stated that they aimed to 'cleanse' the German people and the Nazi state of those they deemed unworthy of life, and thus implemented a forced sterilization campaign. This claimed the lives of at least 400 000 victims, such as Jews, marginalized ethnic minorities, as well as disabled and LGBTQ+ individuals [2]. After World War II, eugenics became stigmatised, and individuals that once advocated it now criticized spoke it as failed pseudoscience. Hence, this idea was buried and removed from scientific journals, and the US began to repeal their sterilisation laws [1].






In modern times, the completion of the Human Genome Project generated an extensive database of human genetics and advancement in genomic screening technologies, particularly to detect chromosomal abnormalities, including Tay-Sachs disease and Down syndrome. As a result, concerns regarding eugenics were raised once again. In addition, the popularisation of statistical techniques, such as polygenic risk scores, helps to risks for genetically complex disorders and the genomic-based screening of embryos for behavioural, psychosocial and intellectual traits. The popularisation of in vitro fertilisation, sperm and egg banks has also made it possible to potentially clone human beings. These medical advances enable potential parents to eliminate specific children who are 'less advantageous' and terminate pregnancies that involve genetically disabled offspring, reinforcing eugenics' aim to identify and eliminate undesirable genetic material [2].

Ethical debates

Personally, I believe that eugenics is a horrible and unjust concept that has caused misery and chaos throughout time. Its history of murder and abuse in terms of sterilisation and improvement of the human species raises a wide array of ethical issues.

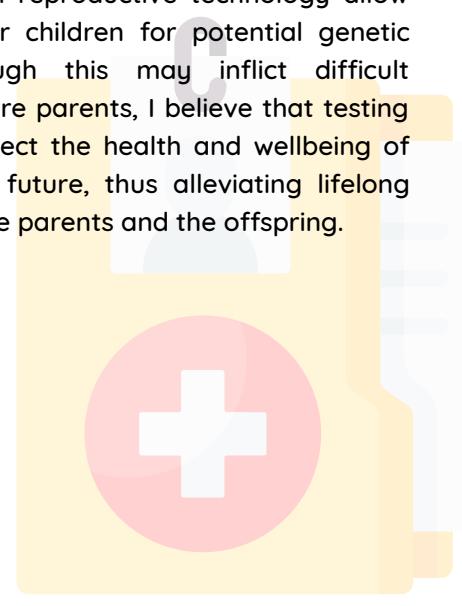
Firstly, a significant issue is equality. Allowing eugenics allows potentially privileged parents to influence the child's traits, thus leading to fundamental social inequalities. Permitting parents to select the genetic makeup of their child leads to the creation of a genetically superior group with unfair advantages the families that cannot afford to manipulate their child with biological dispositions and traits. If this is popularised, it may even lead to homogenisation in society, where diversity and difference become extinct only to produce perfect robotic individuals, eliminating anyone with the slightest disability or deficiency [3].



This may also lead to unjust educational opportunities or special programmes only provided to the 'superior' individuals, further worsening the pre-existing economic issues, raising another problem of biological advantages in addition to the existing social and economic benefits.

The issue of coercion involves the individual's freedom to choose their interest and ability. Hence, moral problems revolve around the degree of control parents can have over their child's traits. It is not ethical to enable parents to create a child with a propensity for mathematics, inculcate a passion for physical activity by manipulating the physical endurance of their child, or manipulate their talent in musical instruments [3]. This leads to the concept of 'designer babies', where it is not the individual that determines their passion or career. It becomes the parent's procreative choice to manipulate the 'destiny' of their child and adopt extensive child rearing.

Some argue that current reproductive technologies differ from immoral eugenics enforcement programmes, and I agree. I believe the tests are now conducted on the basis of individual liberty and freedom, allowing parents to choose their actions according to their own values and conceptions of a 'good' life. Both American and Hong Kong governments does not mandate contraception, sterilisation, prenatal testing, abortion or any forced intervention against the parent's will [4]. The current advancements in reproductive technology allow us to screen our children for potential genetic diseases. Although this may inflict difficult decisions on future parents, I believe that testing can help to protect the health and wellbeing of the child in the future, thus alleviating lifelong stress on both the parents and the offspring.



Conclusion

In conclusion, Eugenics had an idealistic idea - to advance society and provide the best environment for future offspring, as human beings feel the moral obligation to promote positive reproduction to advance society. However, the forced sterilisation and selective breeding camps in the US, concentration camps and mass exterminations in Nazi Germany cannot be justified to create 'better individuals' and raises questions regarding discrimination [4]. Current medical advancements and technology allow a certain degree of control over reproductive choices, which is incredibly beneficial for the child, the parents, and society. However, I believe there should be policies in place that require evidence, and justification before decision is made to terminate a pregnancy, and selective breeding associated with advantageous dispositions and traits should be forbidden.

References

1. Wilson, P. K. Eugenics | Definition, History, & Facts. Encyclopedia Britannica. 20, July, 1998.
2. Eugenics and Scientific Racism. (n.d.). National Human Genome Research Institute.
3. Caplan, A. L., McGee, G., & Magnus, D. (1999). What is immoral about eugenics? BMJ, 319(7220), 1284-1284.
4. Eugenics (Stanford Encyclopedia of Philosophy). 2 June, 2022.



Is Smoking Morally Acceptable?



CHEUNG CH, M28

Discussion

A. Negative consequences on others due to smoking

To judge whether smoking is ethically acceptable, I first consider whether smoking maximizes the utility of the others. With reference to my ethical principle stated at the very beginning, actions that maximize utility are morally good, while those which lower utility are morally bad. By referring to relevant facts below, smoking lowers the utility of non-smokers in the current society, thus it is morally bad, hence unacceptable.

For a more substantial elaboration of my premise of utility maximization, reference should be made to Mill's Utilitarianism, in which he premises his ethical theory on the "greatest happiness principle". I agree with Mill that utility should be maximized, and actions are morally correct if they promote happiness, wrong if they promote the opposite, because it would be absurd if the opposite is true. I endorse Mill's definition of "happiness" as "pleasure and the absence of pain", and its reverse "pain and the lack of pleasure" [1, p.10]. I concur with Mill that the theory of utility maximization does not entail ethical egoism, or in his own words, everyone's utility is "counted for exactly as much as another's" [1, p. 60], for since everyone as a moral agent is equally weighed, so should everyone's utility. Hence, there exists no moral basis on which one can prioritize their own utility over that of the others. In other words, from the greatest happiness principle, I derive that it is immoral for one to prevent others from enjoying a higher utility, regardless of whether his/her own utility is increased or not. I will elaborate below that one's smoking reduces the utility of non-smokers.

Introduction

In this article, whether smoking is morally acceptable is examined. I contend that if utility, of oneself and the others is maximized due to smoking, and that smoking accords with the human function, then it is morally acceptable. Otherwise, it is not.

Whether smoking is morally acceptable will be evaluated on four grounds. Firstly, whether smoking decreases the utility of non-smokers. Secondly, whether smoking is a form of lower pleasure, and whether it often interferes with the exercise of reason, hence lowering overall pleasure. Thirdly, whether being addicted to smoking amounts to surrendering one's autonomy in deciding the source of one's happiness to external goods, and whether such surrender is moral. Lastly, whether smoking brings only short-term happiness, but decreases long-term happiness. On all four grounds I find smoking morally unacceptable.

Apart from considering the effects on non-smokers due to the contingent form of smoking in current society in the first argument, the rest of the paper is dedicated to the discussion of what is inherently wrong with smoking.

Summarized below are three negative consequences of smoking on non-smokers in our current society. First, people in the vicinity of the smoker are inevitably exposed to second-hand smoke. According to the Tobacco and Alcohol Control Office of Hong Kong (n.d.) [2], when exposed to second-hand smoke, one's chance of having health issues, such as cancer and cardiovascular diseases, increases. Thus, the utility of people exposed to second-hand smoke, even if they are non-smokers, is likely to be lowered due to the suffering brought about by the illnesses and their treatment, and the fear associated therewith. Second, some cigarettes are not ethically produced. According to Gately [3], some cigarettes are produced by exploitation of labor. It is precisely because of the existence of smokers there is a demand for cigarettes, and hence, there are workers who are forced into producing cigarettes. I contend that being forced into doing something against one's will lowers one's utility. Third, smoking causes a range of health problems. According to Song et al. [4], it was found that smokers utilize more healthcare services, which are of limited supply. This inevitably reduces the supply of healthcare to other needy, thus lowering their utility.

However, some may argue that the above negative consequences pertain only to a dominant form of smoking in society nowadays. There might exist other forms of smoking which do not bring about the abovementioned consequences. For instance, one might smoke in a region where there are no other people, so the negative effects of second-hand smoke do not affect non-smokers. One might also use only cigarettes produced by himself, so labor is not exploited in the process of cigarette production. One might also be capable of alleviating the health problems due to smoking by himself without external assistance. In this case, the utility of people other than the smoker will not be lowered. To prove smoking is morally wrong under all circumstances, relying on the existence negative effects of smoking alone does not suffice. It follows that what is inherently wrong with smoking morally has to be discussed. It shall therefore be discussed below.

B. Smoking often interferes with the enjoyment of higher pleasure

In this argument, I submit that smoking is immoral because it is a form of lower pleasure, which often distracts one from the enjoyment of higher pleasure. I define a "lower pleasure" as pleasure brought about by satisfaction of mere bodily desires, and a "higher pleasure" to be enjoyed using only the soul, but not the senses. First and foremost, the reader is reminded that using reason and maximizing utility simultaneously amounts to what is moral in this paper. I see no contradiction between maximizing utility and using reason. Hence, Aristotle's view [5] that eudaimonia ("happiness" or "human flourishing") relates to both virtue and utility, is agreed. It is indeed an end which human beings look for. I further agree with Aristotle's choice in Nicomachean Ethics that a "life of study" (or a life of contemplation) as the most desirable, when compared to a life of pleasure and a life of honor (1096a5), as a "life of study" can fulfill human's function, defined as "the soul's activity and actions that express reason" (1098a13). I endorse this definition because I contend that it is human nature to pursue activities of the soul, which are superior to bodily desires. JS Mill's view is similar. He believes "higher pleasures" are preferable to lower ones. The former involves higher faculties specific to human beings, while the latter involves gratification of animal pleasures, which he considers inferior. The dichotomy is explained as he says pleasures "of the intellect, of the feelings and imagination, and of the moral sentiments" are higher than "those of mere sensation" [1, p.11]. I agree with Mill that it is absurd that the calculation of pleasures depends on quantity alone. I further believe that some lower pleasure derived from gratification of certain desires disrupts the human function, and that utility is not maximized. In my view, smoking, a lower pleasure, often disrupts eudaimonia, thus is often immoral. It is only when the human function is fulfilled can true happiness, or eudaimonia, be achieved. Up to this point, it seems to me that in this article, I rely on the proximity of the consequences of actions with eudaimonia to judge whether smoking is morally acceptable or not. I believe it is a direct corollary of Mill's greatest happiness principle and Aristotle's discussions on the human function.

Here, the important premises for the reader to contextualize their understanding of my argument are highlighted. First, any lower pleasure is common to both human and animals. (Note that the desire is not necessarily common to both, but the pleasure brought by the satisfaction is.) Second, higher pleasures can be enjoyed by human beings only. Third, lower pleasures are inferior to higher pleasures. Fourth, the satisfaction of some (but not all) lower pleasures interferes with the enjoyment of higher pleasures. Fifth, to forgo a higher pleasure for a lower pleasure, when one is capable of enjoying both, lowers one's utility.

Despite the inferiority of the lower pleasures, note that it is, in my view, not a must to eradicate all lower pleasures. They are morally acceptable if the enjoyment of higher pleasures, and hence eudaimonia is not disrupted. By the fourth premise, I imply that only those lower pleasures which are necessary for eudaimonia are morally acceptable. An example is eating moderately. Yet, gratification beyond what is necessary for eudaimonia, which takes away soul's enjoyment, is immoral. For example, binge-eating is immoral because it is not reasonable to do so. Unfortunately one cannot stop due to the irresistible urge to do so. Following the definition previously discussed, apparently using one's reason in deciding to resist the satisfaction of bodily desire is a higher pleasure of the soul.

Yet, attention should be drawn to the fact that smoking is different from eating by being much more addictive in nature as nicotine is present. When it comes to the exercise of reason, whether there exists a difference between smokers who are addicts and non-addicts is questionable. According to Durazzo et al. [6], chronic cigarette smoking seems to be related to deficiencies in "executive functions, cognitive flexibility, general intellectual abilities, learning and/or memory processing speed, and working memory", all of which relate to the exercise of reason, and the enjoyment of higher pleasures, as defined as "activities of the soul of the highest virtue", which includes contemplation, pursuing knowledge, etc.

However, such higher pleasures are inevitably taken away due to smoking. According to Pennsylvania State University (n.d.) [7], 85% of smokers cannot avoid being addicted. Since addiction and neurodegeneration can hardly be avoided, it is therefore highly dubious how common it is for one to smoke without forgoing reason. However, I admit that smokers who are non-addicts can be considered moral in the rare case that their reason is not affected due to smoking. The issue of addiction will be discussed in greater detail in section C.

To elaborate on the fifth premise above, I assume that higher pleasures bring more utility to a person than lower ones, and would prefer the former to the latter, and that few would voluntarily forgo the former for the latter. Mill would agree with this and add that lower pleasures are only chosen when they are the only ones accessible, or the only ones which people are capable of enjoying. In section C, I shall further Mill's and Aristotle's view by proposing that voluntarily choosing a lower pleasure amount to giving up reason, thus, one gives up the unique human function, which is immoral.

Bearing in mind the above principles, I now deliver my main argument. First, smoking is a lower pleasure. Second, smoking often interferes with the enjoyment of higher pleasure. Third, to forgo a higher pleasure for a lower pleasure lowers one's utility. Since smoking contradicts my "closest to eudaimonia principle", it is immoral.

Some may claim that smoking is a higher pleasure instead of a lower one. The enjoyment of fine cigars or fine wine, for example, calms one's soul. However, I disagree because smoking is not self-sufficient, as it needs to be enjoyed through the inhalation of smoke, involving sensory experience. It is not a pleasure to be enjoyed using the soul only. Therefore, by definition, it is not a higher pleasure.

C. Addiction takes away human autonomy and identity

I now discuss the issue of addiction. I argue that due to addiction, one forgoes a higher pleasure for a lower pleasure. When one is capable of enjoying both, to forgo the former for the latter is to surrender the autonomy in the decision of the source of happiness to external goods. Hence, one gives up the human function: activity of the soul expressing complete virtue, by giving up the choice of using reason to derive what makes one live a good life. Giving up the human function amounts to renouncing to be a human being. I contend that it is immoral to renounce being a human being. Thus, it follows that it is immoral to smoke.

As abovementioned, I contend that higher pleasures should be self-sufficient. They can be enjoyed using the soul only, originate from within instead of from external goods. In Nicomachean Ethics, Aristotle contends that happiness is self-sufficient, meaning no external goods are required to attain this state (1097b8). According to Aristotle's Physics, the final cause, i.e. the goal of a human being, is to be a human being (198a22-27). To solely rely on external goods to achieve happiness, and being unable to attain happiness when the external good is unavailable, amounts to giving up individual autonomy and submission to external goods. Aristotle disregards mere gratification of bodily pleasures harshly. In Nicomachean Ethics, he says "the most vulgar" would conceive happiness as pleasure and prefer the "life of pleasure" (1095b17). He derides those who so conceive as "completely slavish", and such life as "a life for grazing animals"(1095b20). I agree with Aristotle. Indeed, to surrender one's autonomy in deciding what makes them happy equates to renouncing to be a human being, and I submit that it is immoral for a human being to do so. It is because by giving up one's unique identity, one's existence cannot be justified. Without defining the agent's identity, the discussion of whether an agent's acts are moral cannot proceed. In other words, the definition of an agent's identity is a necessary condition for their acts to be morally evaluated.

It is because whether one's acts are considered moral is related to one's identity and the roles and responsibilities associated thereof. For example, an action done by an animal might be moral, while it might be considered immoral if done by a human being. With reference to Aristotle's theory of four causes in Physics (194b20-195b25), I argue that it is absurd for humans to take up the identity of other organisms since all the four causes of human beings are different from animals, especially the final cause, which is the being's function. Below I shall argue that smoking prevents one from exercising reason, the unique function of human, and not exercising reason amounts to giving up human's identity and autonomy.

Smoking creates addiction, according to National Institute on Drug Abuse [8]. When addicted, one has to smoke in order to feel pleasurable. Otherwise, he would feel miserable by experiencing withdrawal symptoms. There is a constant and irresistible urge to smoke [9]. It is dubious whether one can control themselves with reason when smoking. I submit that by gratification of the urge of smoking due to addiction, one has given up their reason, and thus, cannot choose what can best achieve eudaimonia, human's "end", voluntarily according to reason. Therefore, they have submitted the autonomy of controlling one's utility to external goods, which I consider as a violation of human function and renouncing the human identity. Hence, I consider smoking immoral.



Some may refute my argument, as they contend that choosing to smoke, even when addicted, is a choice involving logical reasoning. An addict has at least two choices when faced with the urge of smoking. Either they continue to smoke, or they do not. Since giving in to their desire to smoke is much less painful than abstaining, their choice to smoke is rational as it lowers the overall pain. They thus did not deviate from the greatest happiness principle. Some believe that they made this decision voluntarily with reason. This can be considered activity of the soul according to reason. Thus, some argue that addicts' decision to continue smoking is in accordance with human function.

In my view, one should not presume that smoke addicts used their reason and did not surrender their autonomy only by virtue of benefit of doubt. Perhaps whether reason is exercised in considering whether their own desire should be gratified or not needs more argument and concrete evidence. As a matter of fact, there are many cases of smoke addicts who want to quit smoking, but constantly go back to smoking. According to Creamer et al. [10], about 55 percent of USA adult smokers had made a quit attempt in the past year, but only around 8 percent were successful in quitting for 6-12 months. They desire to abstain from a lower pleasure, as all rational people do, but they are incapable of doing so. They are compelled to betray their own will due to addiction, hence, their autonomy is taken away by smoking.

My rebuttal may be challenged on the grounds that there exists smoke addicts who can overcome the urge of smoking and successfully quit smoking. I do not deny that people who successfully quit smoking are adept at exercising reason continuously. However, does the fact that some can preserve reason even when smoking render smoking incapable of taking away human's reason? Does the fact that some smokers can use their reason to defend themselves against smoking render smoking morally acceptable? I contend that the answers to both questions are in the negative. Since smoking is fully capable of taking away human's reason, it is therefore not morally acceptable.

Some may further claim that for smokers who fail to quit, when they decided to quit smoking at some point, reason was exercised. Whether or not they adhere to what they have initially promised does not affect the fact that they have, at some point, exercised their reason to conclude quitting smoking is the best choice for them. However, I contend that one should exercise reason throughout the whole life (1100a6), according to Aristotle, in order to be considered expressing reason.

Hence, the majority of smokers have renounced their autonomy of controlling their own utility. Although smoking does not necessarily take away one's reason, it is fully capable of doing so. Thus, I consider smoking a violation of human function and rejection of human identity, which is immoral. Hence, smoking is immoral.

D. Smoking only brings short-term happiness but decreases long-term happiness

Lastly, I submit that choosing to smoke to gratify pleasure is a very myopic way of adhering to the greatest happiness principle. An ethical individual should maximize their utility throughout their lifespan, instead of their utility only at this moment. Therefore, I agree with Aristotle that happiness needs a complete life (1100a6). Many smokers who began to smoke at a young age do not feel the harm. Instead, they believe that "smoking is associated with cool people" [11], which means they believe that smoking increases their utility at the moment. However, at older ages the harm on health appears. According to Shin et al. [12], smokers also tend to feel a sense of guilt after they are diagnosed with cancer. Thus, in two ways their utility is lowered. While it is contested whether smoking or not smoking is more pleasurable, worrying about bad health and bad health itself definitely are considered bad. Abstaining from smoking rids a person of these two bads. Therefore, I submit that the sum total of utility throughout the smoker's whole life is lower than that of a non-smoker. Hence, it is immoral to smoke.

Conclusion

In conclusion, on all four grounds I find smoking morally unacceptable. Firstly, smoking decreases the utility of non-smokers. Secondly, smoking often interferes with the enjoyment of higher pleasures, lowering the total utility. Thirdly, smoking brings addiction, which is incompatible with exercising reason, the human function. Lastly, smoking brings only short-term happiness, but decreases long-term happiness. In sum, smoking hinders the maximization of utility of oneself and the others and does not comply with reason and the human function, it is hence morally unacceptable. My four arguments might be applicable in the justification of the moral unacceptability of other addictive behaviors.

(Remark: In section C, whether or not it is immoral to renounce being a human being is highly complicated. For the sake of the argument, it is taken as true in this paper. Perhaps another paper can be devoted its discussion.)

References

1. Mill, J. Utilitarianism., in the version by Batoche Books, Kitchener, 2001.
2. Tobacco and Alcohol Control Office, Department of Health, HKSAR Government (n.d.). Info-station: Secondhand Smoke and You.
3. Gately, Iain. Tobacco: A Cultural History of How an Exotic Plant Seduced Civilization. New York: Grove Press, 2001.
4. Song J, Jin C, Cheng X. The association between cigarette smoking and health care service utilization among middle-aged and elderly adults in China. *Frontiers in Public Health*. 2022;10.
5. Aristotle. Nicomachean Ethics and Physics, in the version by Readings in Ancient Greek Philosophy: From Thales to Aristotle Fourth Edition, edited by S. Marc Cohen, Patricia Curd, C.D.C. Reeve, Hackett Publishing Company, Inc. Indianapolis/Cambridge. 2011.
6. Durazzo TC, Meyerhoff DJ, Nixon SJ. Chronic cigarette smoking: implications for neurocognition and brain neurobiology. *International journal of environmental research and public health*. 2010 Oct;7(10):3760-91.
7. Pennsylvania State University (n.d.). Light smokers may not escape nicotine addiction, study reveals.
8. National Institute of Drug Abuse. Is nicotine addictive? 12 April, 2021.
9. McLaughlin I, Dani JA, De Biasi M. Nicotine withdrawal. *The Neuropharmacology of Nicotine Dependence*. 2015:99-123.
10. Creamer MR, Wang TW, Babb S, Cullen KA, Day H, Willis G, Jamal A, Neff L. Tobacco product use and cessation indicators among adults—United States, 2018. *Morbidity and mortality weekly report*. 2019 Nov 11;68(45):1013.
11. Watson NA, Clarkson JP, Donovan RJ, Giles-Corti B. Filthy or fashionable? Young people's perceptions of smoking in the media. *Health Education Research*. 2003 Oct 1;18(5):554-67.
12. Shin DW, Park JH, Kim SY, Park EW, Yang HK, Ahn E, Park SM, Lee YJ, Lim MC, Seo HG. Guilt, censure, and concealment of active smoking status among cancer patients and family members after diagnosis: a nationwide study. *Psycho-Oncology*. 2014 May;23(5):585-91.

Mental Resilience and My Decision



LUO Yingsi, M27

It is sometimes a cliché to talk about mental resilience, but it is crucial, especially for medical students. Possessing resilience does not mean we do not face difficult times, but we can minimize the negative thoughts and take positive action to withstand adversity. More importantly, mental resilience allows us to keep our dreams alive and accept unwanted results bravely.

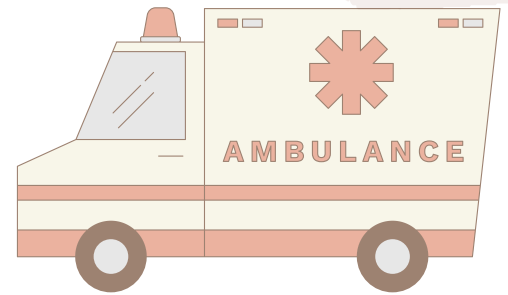
I once had a very distressing time since one of my dreams was not fulfilled despite multiple times. I started doubting if there was any chance for me to achieve it. There was a stage when I felt, my persistence seemed ridiculous and wasted my valuable time, effort, and passion. However, the thought that if there was even a slight chance, and I give up made me feel very guilty and I knew I would regret quitting halfway. I kept thinking about these questions, which made me very depressed. I found I suffered from lack of concentration and motivation, and reached a point of self-criticism.

Luckily, I was able to break the rumination cycle and eventually fulfill my dream. I definitely learnt a lot from this tough but valuable experience. Thanks to my family, teachers, and friends, I realized that it is normal to have negative thoughts during adversities, but a prolonged time of negative thoughts does affect our mental and physical health. I cannot agree with this fact since my physical health was once affected, which nearly cost me the chance of application. Not until that time did I realize that health is a prerequisite for pursuing dreams. Later, I spent more time on body and mind relaxation and recreational activities, and finally an achieved work-life balance. I also learned to give myself more self-kindness. As a result, I had a quick recovery and even bounced back despite facing more distressing situations.

Having a clear understanding of one's aspirations can also help us find a way to build up resilience. For me, uncertainty makes me unsure of the path to choose and hence hinders me from moving forward. Therefore, I did a deep reflection and found some ways to address it. Firstly, I reassessed the achievability of my dream after confirming my strong desire and passion for it. We cannot control everything in our lives, so I decided to give up if I still cannot fulfill my dream after giving it my best shot. I have come to understand that giving up is not a matter of shame. We should think on the bright side and understand the time and effort saved due to giving up an unrealistic dream could prepare us better for pursuing our next life goal. Secondly, exploring other options allowed me to get a deeper understanding of my life goals and prepare better for different situations. Though it took plenty of time, it let me figure out common actions I should take in different plan executions, thus largely reduced my fears and uncertainty. Thirdly, I worked on more self-appreciation and prided myself on my improvement and persistence. Even if it looked unsuccessful, I have built up different essential skills and networks, which would benefit me in the future.

Last but not least, I believe that one should always hope for the best and prepare for the worst. It is quite important since it allows us to set appropriate expectations. There is no need to be upset when we encounter difficult and unlucky situations because these situations are very common in life. The only thing we should focus on is whether we are well prepared to seize the opportunity when it comes along. We should believe stronger the wish we have, the luckier we are. At my last attempt, I was so lucky to meet the same interviewer who interviewed me a few years ago. At that time, I was well prepared physically, and mentally, and hence finally succeeded.

Slow Code in CPR



CHAN Chun Sum, M28

Introduction

Slow code refers to the practice in which healthcare professionals perform advanced cardiac life support (ACLS) or Cardiopulmonary resuscitation (CPR) [1] when compared to a 'full code', with inadequate compressions and medication for circulation. It is also referred to as a show code [2].

The rationale of performing a slow code is to provide a symbolic gesture for demonstrating that healthcare professionals are 'taking actions' to save lives, while giving patient families some sort of mental support and relief [1]. Very often, the slow code is performed in secret, and aims to 'deceive patient families to give a good outcome to the patient and family' [3].

Discussion

In strict words, the performance of a slow code on patients who signed a DNR (Do-Not-Resuscitate) is already a complete breach of patient's autonomy. However 'slow' the resuscitation code is, it constitutes harm that the patient wanted to avoid prior to a peaceful farewell. In fact, no one, regardless of their age or DNR preference wants meaningless pain. It is also unambiguous that a slow code violates the non-maleficence principle by administering a medically unnecessary and torturing form of treatment on the patient. Performing a slow code also raises the question of whether healthcare professionals abuse their profession by adopting a 'professionals know best' attitude without providing full information to and gaining full consent from the patient's family members [3].

Despite the possibility of receiving moral condemnation from others, such actions are generally agreed and approved by the patient's family. It is because the action of 'trying their best' for the dying patient does give physiological relief, as well as alleviate their sorrow and grief, even if they know that any medical intervention is futile. This is more common in Asian situations, where the feeling of family members is as important as the autonomy or informed will of the patient. Furthermore, it is perhaps surprising that a slow code is not always an act of deception against the patient's families. According to a survey in Chicago, the majority of the respondents (healthcare professionals) admitted to having performed a slow code over the past year, with the two main reasons being the argument that a slow code was a 'middle-of - the road solution between healthcare providers and family for the good of the patient' and 'was performed at the family's request' [1]. This shows that slow codes can actually be a result, or a consensus, reached by both the physicians and the family members. In cases like these where the surrogate decision maker is included in the decision-making process, slow codes seem to be more ethically legitimate. Whilst a slow code does have some ethical drawbacks, it also has its justified positive influence. This depends on the perception of different values among people, such as kinship versus personal will.

However, for most of the time, the necessity for a slow code already means a tragedy, not only because it requires physically compressing the patient, but also because it often highlights. That could be between the patient and the family on the resuscitation plan due to various reasons, such as the quick deterioration of the patient's condition, or a hostile relationship between the two parties. It could also be the ineffectiveness of healthcare professionals in explaining or reiterating the futility of any further resuscitation efforts to the family members, which, in simple words, represents their fear to speak out the cruel truth.

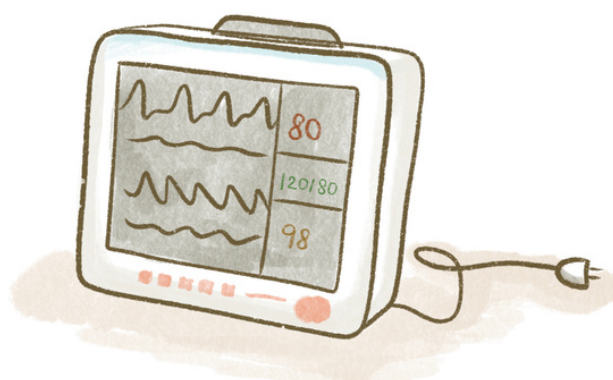
While some may adopt a view of dualism, which means performing either a full code upon request or none [4], there are other ways out for the dilemma. An alternative interpretation of slow code views it as a time-limited and minimal trial that symbolizes the very last, although slim, chance of the patient recovering [3]. This can be seen as a compromise between the family's wishes and the physician's do-no-harm principle. However, such practice still induces certain levels of physical harm and breach in patient-doctor trust, especially when a patient clearly expressed a DNR will.

Suggestions regarding slow codes

Though uncommon in a global view, slow code does exist [1]. Our target is neither to eliminate it from practice nor to promote it for the family's interest, but to find solutions that make the use of slow codes more precise, and most importantly, respectful of the patient's will. As slow codes are ultimately undesirable and heartbreaking, perhaps what we can also do is to reduce the frequency of performing slow codes to begin with.

It has been suggested that a slow code should never be deceptive, as this harms both patient-doctor and family-doctor confidence. Healthcare professionals are encouraged to explain to one or more family member(s) of the patient—who are more emotionally stable about the concept of a 'reduced code', as well as the fact that even a slow code would be very likely to be in vain. On the other hand, doctors and nurses do have the obligation to express their understanding and sympathy to any emotionally distressed patient family members. If a slow code is still demanded after reasonable discussions, the healthcare professionals are to minimize the harm done and to let the patient pass away with the largest amount of dignity afterwards. This serves to preserve the patient's autonomy and respond to the family's demand at the same time.

For the earlier prevention of such dilemmas, more promotion and information regarding DNRs should be provided to terminally ill patients. Ideally, a thorough and intimate conversation between the patient and family, including but not limited to DNR preferences, would be the best solution. It would also be much more persuasive to their family if patients (with mental and cognitive capability) clearly reject a slow code in addition to DNR preference in front of the family, in situations where patients are consciously aware that they are about to pass away.

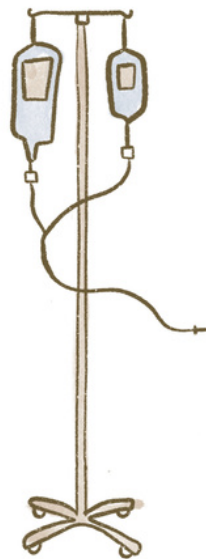


Conclusion

Slow codes, being a generally unwanted but clinically present practice, require deeper ethical evaluation and improvement in coding criteria. The battle between patient autonomy and family sympathy is not likely to end, but must be addressed in a more ethical and thoughtful way. To avoid tragedies from happening, tripartite communication between the patient, family and physician should be initiated to attain a reasonable solution.

References

1. Piscitello GM, Kapania EM, Kanelidis A, Siegler M, Parker WF. The use of slow codes and medically futile codes in practice. *Journal of Pain and Symptom Management*. 2021;62(2):326–335.e5.
2. Frader J, Kodish E, Lantos JD. Ethics rounds—symbolic resuscitation, medical futility, and parental rights. *Pediatrics*. 2010;126(4):769–72.
3. Forman EN, Ladd RE. Why not a slow code? *AMA Journal of Ethics*. 2012 Oct;14(10):759–62.
4. Jonsen AR, Mishra R, Siegler M, J. WW. Medical Indications. In: *Clinical ethics: A practical approach to ethical decisions in clinical medicine*. New York: McGraw Hill; 2022.



The Dilemma between Technological Advancement and Medical Ethics: He Jiankui

CHOW Cheuk Lok M28

These days, the Hong Kong Special Administrative Region government has set eyes on attracting more talents into joining Hong Kong's development. There is no doubt that scientific talent is the main focus as Hong Kong transitions into a knowledge-based economy. Nonetheless, when one of the ambitious scientists applies through the programme to enter Hong Kong, we are hesitant on allowing his entrance. That talent would be He Jiankui, an infamous Chinese scientist who is notorious for his genome-editing experiment back in 2018. Eventually, the government denied his entry due to his criminal record [1]. This has intrigued me as a medical student, to revisit his case and find out why ethical concerns should outweigh any types of research.

Let's revisit the case of the first gene-edited babies. Back in November 2018, a research team led by He announced the successful attempt of editing out the HIV expression gene in a pair of twins using the CRISPR technique. This groundbreaking announcement was initially flooded with positive remarks by the Chinese media. Yet, people soon realised the moral implications behind the experiment and so condemnation arises from all around the world, including Chinese scientists. Later, the Chinese government openly criticised He's research. He would later be arrested and sentenced to 3 years of jail time plus a 500,000-yuan fine for forging documents to pass the ethical approval as well as unethical conduct.

Besides violating the legal requirements for ethical approval, the key dilemma in this case would be whether scientific progression should be valued over moral ethics. The full potential of scientific achievement can be said as mostly unexplored with moral ethics being the major restrictor. Ethics in medical research include 4 main aspects: autonomy, beneficence, non-maleficence and justice. The most commonly applied principle might be beneficence and non-maleficence to bar certain experiments from being conducted. In this case, He also violated the principle of non-maleficence and also other principles. The major moral concern would be whether the altering of DNA sequencing to cut out the CCR5 gene would cause any unwanted, more so unprecedented changes to the human body, whether it be a gene mutation causing cancer or other even more serious mutations more life-threatening. CRISPR is definitely a relatively new technology, so is the topic of gene editing, such that it is a technology that we are not confident enough to utilize without dire consequences. Yet, He still went ahead with the experiment, blatantly disregarding the potential harm performed on the set of twins, especially when they are not naturally conceived. He's actions can be described as deliberately creating a human life and experimenting on it with no regards. This is a disrespect towards the value of human life, and so very much violates the principle of non-maleficence.

We can most certainly say that He Jiankui is quite cold-blooded and inconsiderate as he did not think anything was wrong with his experiment. He even claimed that he was “proud” of the breakthrough [2], clearly unaware of the potential harm to the twins and the ethical issues. Not only do we need to discuss his personal inadequacy of bioethics as a scientist, we should also explore the topic in a more comprehensive manner by considering He’s perspective. HIV caused 650,000 casualties globally in 2021 and has claimed over 40 million lives as of now [3]. It is one of the major public health crises in the modern society which scientists are struggling to control. China has notably been fighting against AIDS and its socio-economic effect for a long time in particular. In this sense, wouldn’t a scientific breakthrough that could potentially allow us to alter the fate of new-borns, to prevent transmission of HIV, be of utmost importance today? If He’s experiment was more meticulous and eventually a success, we would have a new method of creating innate resistance towards HIV infection in new-borns. In other words, his experiment could have been life-saving for the masses, and our next generation could have a brighter future. I believe the problem lies in the approach to his experiment. Firstly, He did not inform the parents adequately of the potential aberrations that may arise throughout the experiment, in fact he just lured them into participating in the experiment with the opportunity of conceiving a child with IVF which otherwise would have been impossible in China. The consent forms were found to be unsatisfactory. Moreover, he did not report the experiment to any supervisors, so his experiments were unauthorised. If He would have requested for proper approval for the experiment, which at that time would have been obviously denied, he could still have the opportunity to retry the experiment at a later stage of scientific development, when gene-editing technology is more mature and well-controlled.

Now comes the question, when should we determine that gene-editing is stable enough for further investigation? In the Convention on Human Rights and Biomedicine, it states that “an intervention seeking to modify the human genome may only be undertaken for preventive, diagnostic, or therapeutic purposes and only if its aim is not to introduce any modification in the genome of any descendants.” This can be interpreted suggesting, that we should not proceed with germline editing as of now, this idea is further reinstated by the World Health Organization with its reports after He’s controversy [4]. Yet, if we keep stalling in just somatic gene editing, how are we going to develop enough skills to start germline editing in the future? If so, many genetic diseases will be left unresolved as we can never find a way to stop their inheritance to our children. In my opinion, it is definitely too early for us to push for the allowance of germline editing. “Playing God” is also a major deterrence towards allowing so. Nonetheless, I believe we should plan a clear agenda in genetic engineering, outlining the general flow of research direction and consider when the appropriate timing is for certain restrictions to be lifted. Hopefully, we could have a wider exploration in the field of gene-editing in the future, so that we would be able to utilise it for the benefit of our society.



There are certainly more aspects of this matter worth exploring. For me, another big question that intrigues me would be how to define the value of life. Gene editing for other species of life has been in use for a longer time already, and we seem to have less of an issue towards them. Of course, people will protest about genetically-modified organisms like the golden rice, deeming it potentially harmful, or zebrafish, seen as “playing God”. Yet, there has not been as much as a backlash towards this research experiments as compared to that of He’s. Is it because of the involvement of potential risks? Is it related to a relatively new technology? Or more extremely do we value human lives over that of other organisms? These are questions that I strive to learn more about, and answer eventually.

Endnotes

- 1.“Immigration Department pulls visa after suspicions Chinese scientist – who was jailed after gene-editing babies to be resistant to HIV – lied on application” SCMP.
- 2.“He Jiankui had told a packed biomedical conference Wednesday he was “proud to have successfully altered the DNA of twin girls born to an HIV-positive father, an apparent medical breakthrough,” Hong Kong Free Press, 2018.
- 3.“HIV continues to be a major global public health issue, having claimed 40.1 million [33.6-48.6 million] lives so far. In 2021, 650 000 [510 000-860 000] people died from HIV-related causes globally.” World Health Organization.
- 4.“A policy statement by the Director-General, resulting from an interim recommendation by the Committee to clarify that “it would be irresponsible at this time for anyone to proceed with clinical applications of germline human genome editing”” World Health Organization.

Private Doctors in Hong Kong Lack Professional Obligation to Recommend COVID-19 Vaccines to Patients

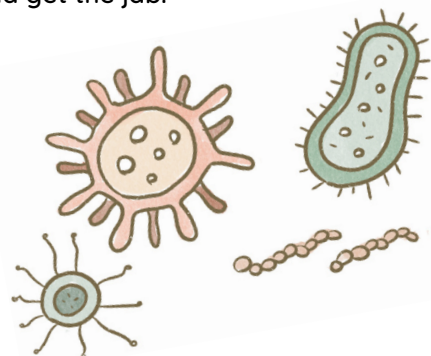
HWANG Isabel, Senior Lecturer, SBS



Since the beginning of the COVID-19 pandemic, I have been quite frustrated and disappointed about the attitudes of some private family doctors in Hong Kong (HK) towards their indecisiveness about recommending vaccines to their patients. For HK citizens, life without COVID-19 was more or less a reality before February 2022 due to the Hong Kong government's COVID strategy in which it placed heavy restrictions on travel and imposed lockdowns. Only a few COVID-19 cases each day were imported from travellers returning to HK. The citizens also diligently adhered to the government-imposed mask & social distancing mandates, perhaps because of the traumatic experience of the SARS epidemic that struck HK in 2003 was fresh in their memory [1]. However, the number of COVID-19-positive cases has been exponentially rising since February 2022 owing to the high transmission rate of the Omicron variant, which was fuelled due to the large family gatherings held as a part of the traditional Chinese New Year celebration. Since then, many elderly people, often unvaccinated, have died from COVID-19 [2,3]. The low vaccination rate is attributable to multiple causes. Some elderly individuals with chronic conditions have had to wait months for an appointment with a specialist at a public hospital to confirm whether they are eligible to receive a vaccination [4]. On the other hand, for individuals who can afford a private family physician or specialist, the issue has been the reluctance of these healthcare workers (HCWs) to recommend the Covid 19 vaccines. My view is that it is common for an 80-year-old to have a couple of chronic illnesses, but their conditions should be well controllable by medication.

One frustrating fact I learn from the local news on a regular basis is that the city's clinical advisers, including medical experts amongst the government authorities, are constantly urging elderly individuals to get the jab as soon as possible and advising them to actively discuss this with their family physicians. However, many family doctors of these HCWs in HK are unwilling to encourage elderly individuals to be get vaccinated or to proactively discuss the pros & cons of vaccination with their patients. This highlights a serious disconnect and information conflict between government health officials and private family doctors.

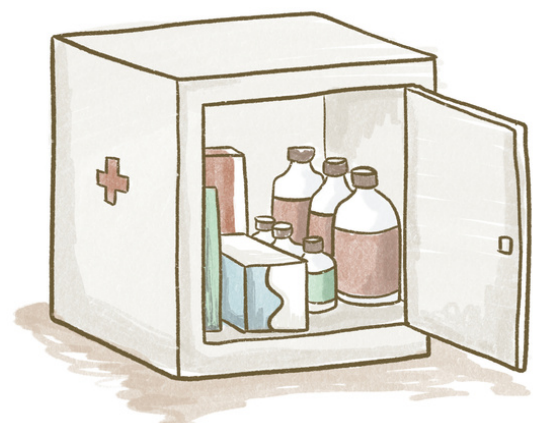
In November 2021, I personally witnessed this disconnect when I went to consult the cardiologist who has been treating my mother's hypertension for many years. The only comment I received from this specialist was that he could not offer me any clear advice on whether my mother should be vaccinated, although her health is fairly good for her age. I had paid around HK\$800 for less than 5 minutes of this doctor's time. I had even brought the vaccination factsheets provided on the government website and was eager to discuss these with him. Therefore, it was very disappointing to learn that even a specialist like him could not offer solid advice on whether my mother could get the jab.



In HK, two COVID-19 vaccines--Pfizer (an mRNA vaccine) and Sinovac (an inactivated virus vaccine) -- are freely available and citizens can choose between them. In critical times like this COVID-19 pandemic, many health experts and professionals worldwide have been encouraging vaccination, particular amongst vulnerable populations such as the elderly. My personal experience has knocked my confidence in the professional conduct of these private practitioners. In my opinion, they are not aware of their professional obligation to proactively advise their patients to get vaccinated. While discussing my experience with my colleagues, it was indeed very surprising to hear similar stories about no clear vaccination advice for the elderly in HK. The online bioethics course about Law & Bioethics with the Columbia University I recently enrolled into made me introspect and even consider if these physicians were under a legal obligation to offer advice based on the scientific data available rather than maintaining a non-committal approach. This would also help achieve the government's aim of maximum vaccination rates among the elderly. According to an article published in *Vaccines* in November 2021, the general efficacy and safety information on COVID-19 vaccines may not be sufficient to reassure doctors to recommend vaccination; and more in-depth safety data on patients suffering with chronic illnesses are needed [5]. But the fact that 90.1% of 312 of these physicians surveyed in this study were themselves vaccinated but non-committal to recommend the vaccine to their patients leaves the readers with a sense of despair and despondency.

At this point the bioethical principle of Do No Harm would not sound justified. Therefore, I am unsure whether offering more information safety data to these doctors would boost their confidence to recommend vaccines to their patients or if the fear of being held responsible for an adverse event is so huge that they just do not want to take the risk and get accused of paternalism. My personal view is that their hesitation to encourage or recommend vaccines has sadly and partly contributed to the low vaccination rates amongst the elderly.

One possible solution would be for the government to provide more assurance to private doctors to protect them from liability claims, but I believe a more effective solution would be for the government to make vaccination mandatory for all elderly individuals. Exemptions could only be permitted for patients who are found by their doctors to be truly unsuitable for vaccination. This may violate the principle of autonomy; however, the high death rates due to COVID-19 infection amongst the elderly clearly highlights the risk benefit parameter in this vulnerable group. Changing the attitudes of individual doctors will take time, but their hesitancy to recommend vaccination to the elderly should be discussed more openly amongst the medical and bioethical fields to avoid another avoidable mortality wave in HK.



References

1. Leung GM, Quah S, Ho LM, Ho SY, Hedley AJ, Lee HP, Lam TH. A tale of two cities: community psychobehavioral surveillance and related impact on outbreak control in Hong Kong and Singapore during the severe acute respiratory syndrome epidemic. *Infection Control & Hospital Epidemiology*. 2004 Dec;25(12):1033-41.
2. Benjamin Mueller. High Death Rate in Hong Kong Shows Importance of Vaccinating the Elderly. *The New York Times*. 21 March, 2022
3. Alexandra Stevenson & Austin Ramzy. 'I Don't Dare Get the Shot': Virus Ravages Unvaccinated Older Hong Kongers. *The New York Times*. 25 Feb, 2022.
4. Fiona Sun. Coronavirus Hong Kong: why are elderly not getting vaccinated? Families, doctors and government not doing enough to tackle irrational fears and practical obstacles, say social workers. *South Morning China Post*. 13 Feb, 2022.
5. Poon PK, Zhou W, Chan DC, Kwok KO, Wong SY. Recommending COVID-19 vaccines to patients: practice and concerns of frontline family doctors. *Vaccines*. 2021 Nov;9(11):1319.



Student-teacher Editorial Team



Sophia Zhu M27



Victor Chen M26



Vanessa Lee M28
Art illustrator



Dr Isabel Hwang



Dr Chelsea Sun



Dr Kanchan Singh

Where to find us

Email: cubioethics@link.cuhk.edu.hk

Website: <http://bioethics.med.cuhk.edu.hk/>

Disclaimer

The views and opinions expressed in the newsletter are solely those of the authors. they do not necessarily reflect the views of the Chinese University of Hong Kong and its employees. The editorial team is not responsible and does not verify for accuracy of the information contained in the article. The primary purpose of the newsletter is to provide a platform for intellectual exchange.

