## TECHNO-HEALTHISM: BEING PATIENTS-IN-WAITING UNDER THE DEVELOPMENT OF MEDICAL TECHNOLOGIES

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## **EXTENDED ABSTRACT**

Al has been incorporated into medical practice and is able to detect the risk of various illnesses in the future, based on analysis of past medical data and people's current health status and lifestyle habits. In order to reduce the estimated risk of illness, or in other words, to control the risk of developing illness in the future, preventive medical treatment may be offered by doctors, or preventive measures may be taken spontaneously by the person who is informed of the risk. This trend can be seen in the current growing attention to self-care. Self-care is not only needed for people to be healthy (disease-free), but also for people to live independently coping with illnesses such as lifestyle-related illnesses, through daily medications and lifestyle control by the individual. In other words, self-care is considered effective in enabling people to live as independently as possible, regardless of whether they are ill or not, without becoming bedridden (Asai, 2022). Also, this can be explained by the recent rise in health consciousness.

Given these circumstances, the use of medical AI and digital health is likely to become more active in the future, both in medicine and care. While we are very positive about the contribution of these emerging technologies to human health, how aware are we of the political and ethical implications of these technologies behind their technological functions? This study is not a discussion of the technological functions of medical AI or digital health, but rather an examination of the ethical implications of these emerging health-related technologies for our 'life'. Also, this study is questioning what 'health' means under the development of medical technologies. There has been a great accumulation of research, mainly by medical sociologists, on the social aspects of health (Timmermans and Haas, 2008).

In particular, the distinction between the social and biological aspects of health, as articulated by Parsons, has had a major influence on these studies (Timmermans and Haas, 2008; Timmermans and Buchbinder, 2010). The distinction between illness and disease has also been explained, where disease is defined as the experience of feeling sick, and illness as an organic and pathological condition based on a more medical diagnosis. Doctors have played a role of legitimising our experience of disease as a medical condition, with diagnosis based on their professional knowledge. Particularly in modern medicine, the shift from a view of disease as part of the patient to a view of disease as an independent entity has made the role of the doctor's diagnosis more important (Rosenberg, 2007). Timmermans and Buchbinder, drawing on previous research, describe diagnosis as both a process of deliberate judgement and a pre-existing set of categories that initiate a series of experiences, identities, life strategies and subsequent medical practices (Timmermans and Buchbinder, 2010; Rosenberg, 2007; Jutel, 2009).

When medical AI is introduced to diagnosis by doctors and the vast amount of records and data relating to illnesses are utilised, it appears that more precise and valid diagnoses as well as effective medical practices will become possible. For example, the situation of people who suffer from experience of diseases that interfere with their daily life, but are not diagnosed as illnesses by doctors, could be improved (Atkins, 2010).

Moreover, the early detection or risk prediction of illnesses by these advanced technologies is considered very useful for people who do not have any obvious experience of disease, but who want to stay healthy and consult a doctor for an assessment of their health status. However, especially the risk prediction of illnesses can encourage, and sometimes force, people to take preventive medication and to adopt supposedly 'healthy' habits and lifestyles in order to avoid the risk of illnesses that are yet to be discovered.

In other words, while the advancement of cutting-edge medical technologies could provide us with the knowledge of how to be more physically healthy, being physically healthy could become an end in itself. Physical health has been replaced from being one of the key means of achieving personal goals and living a meaningful and fulfilling life to being healthy as a meaningful life goal in itself. Whilst it is very natural to make being healthy one of our goals, it does not mean that being healthy is perfectly equal to being happy. Our wellbeing can be broadly categorised into subjective wellbeing and psychological wellbeing (Helliwell, Layard, Sachs, De Neve, Aknin, & Wang, 2022). Although physical health obviously affects both, there are still many people who feel happy even when they are ill, those who are physically healthy but never feel happy, and those who consume substances harmful to their health (e.g., drinking alcohol or smoking) but still feel happy. That is, in addition to our physical health, which can be measured by medical technology, our psychological state, which is difficult to measure by machines, is also a very significant factor in our well-being. What does it mean for happiness and wellbeing if the goal is to maintain physical health, and sometimes, for the sake of health, to give up everything that gives us pleasure and enjoyment? Such questions may bring us back to the philosophical question of 'what is happiness', which has been discussed since ancient Greece.

In addition, when people are informed in advance by their doctors about foreseeable risks of illness, patients may feel that they need to take more responsibility for their health and illness. The change in perception from illness being something that anyone can get to illness being something that can be predicted and prevented may require all of us to take more responsibility for our health. If this latter perception permeates society, it is inevitable that even the health and social care systems will be changed based on this perception. Individual responsibility and burden for health may be increased in the future in order to reduce the societal burden on healthcare and social welfare.

This situation has already been described by Skrabanek as the rise of healthism and lifestylism (Skrabanek, 1994). According to him, the doctrine of lifestylism considers that "most diseases are caused by unhealthy behaviour". He then also pointed out the moral and ethical problems that hover there, as follows:

"Although lifestylism has a strong moral flavour, its language is mathematical. Each 'risk factor' has a number, which quantifies the risk".

This description corresponds exactly to the calculated risk of illness and to the foreseen risk of illness. As medical AI diagnostics become more prevalent and the technology more developed, the mathematically calculated risks will have greater significance in people's daily lives. When

such lifestylism becomes more prevalent in society, people's attitudes to health are linked to political developments, as Skrabanek described in Healthism (Skrabanek, 1994):

"The pursuit of health is a symptom of unhealth. When this pursuit is no longer a personal yearning but part of state ideology, healthism for short, it becomes a symptom of political sickness"

In societies where advanced technology is involved in people's health, healthism can be further amplified by the technology. This study attempts to explain such situations as techno-healthism.

Furthermore, in a society where such techno-healthism is concerned, we can all become patients-in-waiting (Timmermans and Buchbinder, 2010). In other words, we can be listed as potential or preemptive patients when technology provides a name or risk of illness to anyone who is not yet ill, who has not yet been diagnosed with a disease, or who is worried about health. The concept of patients-in-waiting was proposed by Timmermans and Buchbinder in their research on newborn screening tests (Timmermans and Buchbinder, 2010). It is derived to describe the interaction between newborns in an ambiguous condition with no clear diagnosis of disease, their parents and the doctors trying to diagnose them medically, and the situation in which they are placed.

Developments in medical AI and digitalhealth can impose a high degree of uncertainty on people who are pronounced at risk of future illness, even if they are healthy at the time. They would then accept preventive medical interventions to get out of the ambiguous situation and accept regular monitoring and tracking of their health status by their doctors. This means that we, who live in a precarious situation between healthy and sick, situate ourselves as patients and try to avoid the indeterminate situation (uncertainty) created by advanced medical technologies.

This study aims to examine the ethical problems posed by health, as defined by highly developed medical technologies and their mathematical processing, from the perspective of information ethics. In particular, it attempts to develop the idea of healthism into technohercism by focusing on the situation where the penetration of emerging technologies into the medical and care domain influences people's health consciousness, the societal meaning of 'health' and its ethical implications.

**KEYWORDS:** Ethics, Lifestylism, Medical AI, Patients-in-waiting, Techno-Healthism.

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