

Review Article

The Evolution and Ethical Implication of The Physician's Pledge: A Guide for Medical Practitioners

***Uche Ojinmah¹, Chinechelum N. Anyanechi², Christabel A. Ovesuor¹, Nkiru P. Onodugo¹,
Obianuju Ogbobe¹, Chika M. Emeka³, Cajetan. C. Onyedum⁴**

¹Department of Dermatology, University of Nigeria, Nsukka, Enugu State, Nigeria. ²Department of Internal Medicine, Federal Medical Centre Umuahia, Abia State, Nigeria. ³Department of Internal Medicine, Alex Ekwueme Federal University Teaching Hospital, Abakaliki, Ebonyi State, Nigeria. ⁴Department of Internal Medicine, University of Nigeria, Nsukka, Enugu State, Nigeria.

Abstract

Healthcare started as a one-man business where only the doctor received, reviewed, diagnosed, prescribed, dispensed the treatment, and nursed the patient. There was no regulation, and hence society relied solely on the doctor's morals for appropriate treatment, professional handling of patients, and confidentiality. The doctor was highly regarded in society and was close to royalty. The perceived benefits and lack of external regulation bred charlatans and eroded society's confidence stimulating the development of the Hippocratic Oath. The Hippocratic Oath has progressively evolved in tandem with developments in society to what it is today. From the Hippocratic Oath, medical ethics sprung and evolved. We review several oaths that abound in medical practice and their evolution over the years to what we have today as the Physician's Pledge. We reviewed several articles published in English within ten years based on specified search terms for conformity. The selected articles were screened for relevance to the research topic, and necessary data were extracted. The Oath, though controversial in origin, evolved from a one-liner "primus non nocere" to what it is today, having started as a document heavily influenced by religion to become completely secular. It also transitioned from relying on the physician's morality for compliance to becoming externally enforceable. The transformations of the Oath and Ethics, which could be seen as the compartmentalization of the Oath based on this study, resulted from landmark events in society and changes in religious ideologies and societal morals. The existence of many forms of the Oath was also established. Some of the Oaths were also adapted to suit the morals and beliefs of the areas used. In conclusion, concluded that the "One Oath for All" era is over. We propose an Oath or Pledge that will suit our society to avoid going counter to our laws.

Corresponding Author: *Uche R. Ojinmah, Department of Dermatology, University of Nigeria, Nsukka, Nigeria. uche.ojinmah@unn.edu.ng.

This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non-Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given, and the new creations are licensed under the identical terms.

How to cite this article: Ojinmah U, Anyanechi CN, Ovesuor CA, Onodugo NP, Ogbobe O, Emeka CM, Onyedum CC. The Evolution and Ethical Implication of The Physician's Pledge: A Guide for Medical Practitioners. Niger Med J 2023;64(2):174-182.

Quick Response Code:



Introduction

Historically, healthcare started with only the doctor who provided all health services to his patients. The doctor functioned as the physician, surgeon, dentist, pathologist, apothecary (the forebear of a pharmacist), nurse, dietician, health information manager, physiotherapist, etc. It was a classic case of a one-stop health shop.

In the beginning, medical training was fully on an apprenticeship basis and the major requirement as enunciated in the original Hippocratic Oath was being a descendant of a doctor (“... I shall teach this art only to my children and the children of my teacher”) else the pupil that is not a descendant of a doctor must sign the covenant (indenture) and take an oath according to medical law before joining the apprenticeship.^{1,2} There were no preceding educational levels or admission examinations to surmount. Once your father was or is a doctor, you are automatically qualified to join the training. No recorded history of post-qualification certification existed then.

The doctor was treated by the people as next to God. The doctor was a friend to royalty and a regular presence at the courts of kings. He lived so well. Garbed in special robes, he moved with his apprentices and servants teaching and “curing”. He attributed disease aetiology to “humor”, “bad bile”, and “airs”.³ The physician's task was to diagnose which humor was out of balance; treatment then focused on restoring equilibrium by diet or by reducing the offending, out-of-balance humor by evacuating it as may be seen in bloodletting.³ Medicinals were not an important part of Hippocratic treatments. It was Galen who, in the first century AD, concocted and treated with medicinal herbs and compounds.³ In the early days, the “code of medical ethics” could be seen in a “one-liner” which read: “primum non nocere” (first, do no harm).⁴ The pecuniary benefits and lack of regulation fostered bad practices and also attracted crooks who became medical charlatans. A famous French playwright called Moliere wrote a farce in 1666 called “A Doctor in Spite of Himself” also known as “The Physician in Spite of Himself” where he portrayed possibilities and practices of the era.⁵ In this play, Sganarelle, a faggot (wood) gatherer and a drunkard was mistaken for a doctor as a result of a devious plot by his wife to punish him because of domestic violence. He was able to wobble and tumble to a diagnosis and treatment of Lucinde; Geronte's daughter without any medical training or knowledge but relied solely on his wits. This gave him leverage in the community and placed him among royals with immense pecuniary benefits. Sadly, some patients also lost their lives to such because serendipity is not in default mode. If Sganarelle could do this in the 17th century AD then imagine what it was like in the centuries BC. Thus, the oath, code of medical ethics, and resultant regulation of medical practice became a necessity. This study aims to review several oaths that abound in medical practice and their evolution over the years to what we have today as the Physician's Pledge.

Materials & Method

Search strategy

We reviewed Medical Oath/Pledge and ethics-related publications worldwide from 2010 to 2019. Data were sourced from Google Scholar (up to the first 1500 articles), PubMed Central, African Journals Online, and by reviewing references of relevant literature. The data search was up-to-date as of December 31, 2019. Search terms used were: “Origin of medical oath”, “Hippocratic Oath”, “Variations of Medical Oath”, “Evolution of Medical Oath”, “Medical ethics” and “Medical Pledge” within the time frame from 2010 to 2019. Only articles published in the English language were considered.

Selection criteria

Possible relevant publications identified were initially screened according to their title and abstract. Subsequently, the full text of relevant articles considered to be relevant for inclusion in the review was retrieved. Selection criteria for the relevant publications were focused on the medical oath, Ethics of medical practice, the impact of societal changes on the medical oath, and secularization of the medical oath. Publications with the following characteristics were excluded; duplicate publications and articles not related

to medical oaths and articles outside the relevant time span. The full texts of all the included papers were reviewed.

Data extraction

Six reviewers (CNA, CAO, NPO, OO, CME, and CCO) selected the included articles and extracted useful information from each accepted publication relying on a proforma designed for the review. Extracted information was verified by a seventh independent reviewer (URO) using the same proforma. All discordance was settled by consensus. Specific information extracted were author (s), date and year of publication, type of publication (oath, pledge, ethics), a summary of the focus of the publication (origin of the oath, analysis of Hippocratic and other Medical oaths, transformations of the oath and possible triggers, and ethical extrapolations).

Table 1: Summary of Relevant Studies Addressing the Evolution of Medical Oath

First author	Year of publication	Type of article (origin of the oath, secularization of the oath, effects of social events on oath amendment, variations of the oath, pledge, the oath as origin of ethics & effects of social events on amendment of ethical guidelines)	Area of focus (e.g. ethics, oath pledge, etc.)
Antoniou SA⁶	2010	Origin, analysis & application of the Oath to modern medicine	Oath
Askitopoulou H⁷	2018	The oath as origin of ethics	Oath & Ethics
Ogungbure AO⁸	2011	Effects of social events on amendment of ethical guidelines	Ethics
Ebeh JI⁹	2017	Effects of social events on Amendment of ethical guidelines	Ethics
Rachel H¹⁰	2017	Effects of social events on Amendment of Oath/ethical guidelines	Oath & Ethics
Rubensfield S¹¹	2010	Effects of social events on Amendment of Oath/ethical guidelines	Oath & Ethics
Parsi-Parsa RM¹²	2017	Effects of social events on Amendment of Oath	Oath

Discussion

The oath which could be said to have started as a one-liner ethical phrase guided by social morals of the era was simply stated as “primum non nocere” (first, do no harm).⁴ This phrase must have arisen from the yearnings of society as a result of negative fallouts of unregulated medical practice. This guiding phrase was later expanded into what we call the Hippocratic Oath. Though controversy exists about the authorship, the Hippocratic Oath represents the moral essence and the ethical values of ancient Greek medicine as guided by the prevailing societal values and beliefs.⁶

As a reflection of the religious tone of the era, the earliest Hippocratic Oath also known as the “Pagan” Oath had a strong religious leaning as depicted by the preamble^{6,7}. It could broadly be divided into four sections thus: (1) Preamble (2) Honouring the mentor (3) Duties to the patient and (4) Punishment⁶.

The preamble is in reality a solemn invocation to the gods of healing as shown below:

“I swear by Apollo the Physician and by Asclepius and by Hygeia (“Health”) and Panacea (“Remedy”) and by all the gods as well as goddesses, making them judges (witnesses), to bring the following oath and written covenant (“sygrafi”) to fulfillment, in accordance with my power and my judgment”⁶

This invocation as at then is the source of legitimization of the Oath as a solemn covenant between the physician and the gods and goddesses in charge of medicine whom it was believed shall serve as witnesses to the truth of what he is about to declare. The opening echoes the origins, purposes, and limits of medicine and also its transition from divine to scientific healing. “Apollo” is the god of healing. His son “Asklepios” is the god of medicine. Asklepios’ daughters are “Hygeia”, the goddess of health or preventive health care, and “Panacea”, the goddess of a universal or unique remedy.

This invocation brings solemnity to the *Oath*, which thus becomes a pledge instead of a simple promise⁷. The second section in honour of the teacher was profuse and masculine according to the prevailing realities of the era:

“To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brothers in male lineage and to teach them this art—if they desire to learn it—without fee and covenant; to give a share of precepts and oral instruction and all the other learning to my sons and to the sons of him who has instructed me and to pupils who have signed the covenant and have taken an oath according to the medical law, but no one else.”⁶

This section was said to have been heavily influenced by Aristotelian philosophy which equates a mentor to a parent because while parents provide life, teachers provide proper (good) life by what they bequeath to us⁶. Both parents and teachers contribute materials (genetics and knowledge) which make up the final entity of the learned physician. This section also seems to make it clear that medicine is an exclusive preserve of men which by today’s standard would be viewed as extremely gender insensitive. The segregation against those whose parents were not physicians is also obvious as there were preconditions for teaching them the art. The third section which covered duties to the patient is the most extensive, being the major reason for the Oath. It could be broken down and analyzed into six sub-sections:

(a) Therapy and ethics:

“I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice.”⁶

This sub-section indicates that the original Oath as we know it still left a huge lot undefined in allowing the “ability” and “judgment” (which could be impaired) of the physician to strongly be the basis of therapeutics instead of defined standards. This probably relied heavily on the belief that the punishment section of this Oath was enough to keep all physicians in check or that people back then reposed a lot of confidence in others to do things right, especially in physicians but not so today.

(b) Respect for human life:

“I will neither give a deadly drug to anybody who asked for it nor will I make a suggestion to this effect. Similarly, I will not give to a woman an abortive remedy. In purity and holiness, I will guard my life and my art.”⁶

Any willful act that will lead to a patient's death or induced abortion was forbidden. This shows the Greeks' deep respect for any human life and the religious connotation is manifest in the fact that keeping the above conditions was a prerequisite for the holiness and purity of the physician's life⁶. This section, as of today conflicts with what seems to be the pervading societal position on abortion rights and the practice of euthanasia, especially in the Western world.

(c) Appropriate referral:

“I will not use the knife, not even on sufferers from stone, but will withdraw in favor of such men as are engaged in this work.”⁶

This section recognizes rudimentary specialization thereby encouraging appropriate referral and sending of consults. This is more important in this era of micro-specialization with constantly improving medical knowledge that is targeted at giving our patients the best treatment available.

(d) Ethics and decency:

“Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice, of all mischief and in particular of sexual relations with both female and male persons, be they free or slaves.”⁶

This section of the Oath was very important in that era when a lot of home visits were part of medical practice. It outlaws the use of the practice of medicine as a subterfuge for any immoral act and demands strictly honourable intentions. This has strong ethical implications which is still important today. It is still applicable in home, hospital, or hospice care, and failing to adhere strictly to it can end the practice of a doctor.

(e) Confidentiality:

“What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself, holding such things shameful to be spoken about.”⁶

This section could be independently viewed as an Oath of Secrecy. Confidentiality is the soul of medical consultation and must be strictly enforced. The “death” of confidentiality shall mark the end of medical consultation as we know it. In this original Oath, there was no ouster clause for this section but later as a result of changes in jurisprudence, an ouster clause was introduced to allow for facts gathered from consultation to be admissible as evidence in court.

(f) Price of practice:

The final section espoused the philosophical realism of mankind that was pervasive in that era; punishment and reward. This realism is reflected in all religions where those that behave well shall retire to a paradise while transgressors receive scary punishment:

“If I fulfill this oath and do not violate it, may it be granted to me to enjoy life and art, being honoured with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot.”⁶

From the foregoing, one can conclusively say that the Hippocratic Oath is a compendium of many Oaths and Medical Ethics is just a nominal summary of the Hippocratic Oath. It is also obvious that the pervading religious view of the Greeks heavily influenced the original Hippocratic Oath.

Although scholars differ on the exact period when this Oath was written, it is considered a rite of passage for practitioners of medicine in many countries, even though the modernized version of the text varies among them. Even though several parts of the oath have been removed or reformulated over the years in various parts of the world to suit the changing needs of medicine, the ethical purpose for which it was originally formulated has been retained ⁸.

Among all the sections of the *Oath*, the opening has seen the greatest adjustments over the centuries in various cultures and changing beliefs ⁷. The complete separation of medical science from religion and spirituality (the gods and goddesses) in due respect to the pervading societal ethos of the 20th Century led to the secularization of the Oath with the solemn invocation section as the major casualty.

After the upheavals of the Second World War and the associated unethical use of humans for research as exposed at the Nuremberg Doctors' trial, though some researchers advocate the use of humans for experiments in diseases that plague humans instead of animals⁹, the World Medical Association based on facts before her thought otherwise and had to intervene by bringing the Oath up to speed leading to the most radical reformatting of the Oath.¹⁰

Revelations of wicked and atrocious human experiments by doctors in Nazi Germany on prisoners of war and civilians of occupied countries exposed some unforeseen lapses in the Oath and by extrapolation ethics. The doctors performed medical experiments on the subjects without consent and during the research, inflicted pain, torture, brutality, and murder. Other atrocious programs such as forced euthanasia via lethal injections, gas chambers, and cremation were conducted.^{10,11} The Eugenics program which was also said to have involved some researchers in the United States of America left the world in shock¹¹. Likewise, Japan committed unacceptable atrocities on Chinese citizens during the Second Sino-Japan War and World War II. The Japanese experimented on humans by "field testing" plague bombs and dropping them on Chinese cities to see whether they could start plague outbreaks (which they did!). Unit 731 of the Japan Imperial Army had a vast research program during and after World War II. Japan wanted to develop weapons of biological warfare including plague, anthrax, cholera, and a dozen other pathogens. It is estimated that > 200,000 Chinese were killed in germ warfare field experiments.

The Japanese army doctors carried out medical human experimentation such as vivisection or what they called "practice surgery," wherein a patient was cut up without anesthesia. These horrible atrocities were committed by some of Japan's most distinguished doctors.¹⁰

The US Army granted immunity from war crimes prosecution to the Japanese doctors involved in such shameful research practices in exchange for data that were gathered through inhumane and unethical human experimentation. The information and experience gained in the bioweapons research were incorporated into the US biological warfare program.¹⁰

These events and concerns over the state of medical ethics all over the world spurred the WMA in Geneva to adopt the Declaration of Geneva or Physician's Oath in 1948, which was amended in 1968, 1983, 1994, and 2017. With this move, the WMA took responsibility for setting ethical guidelines for world physicians and has become the recognized authority to speak for the doctors of the world on international affairs.

The Declaration of Geneva¹³ was adopted in September 1948 by the 2nd World Medical Assembly held in Geneva, Switzerland. This version totally discarded the preamble dedicated to Greek gods thus making the Oath partly secular with time, many subtle amendments were made to the 1948 declaration but the 22nd World Medical Assembly in Sydney, Australia in August 1968 carried out a radical review of the modified

oath of Hippocrates to make it completely secular and it became the Physician's oath. Though it still retained classical gender variation as seen in the clause "**MY COLLEAGUES will be my sisters and brothers**". It still incorporated Hippocrates' general principles as well as pledges *not to use medical knowledge to violate human rights or civil liberties and to practice medicine without discrimination or bias*. These additions were responses to war atrocities enunciated above and the further amendments up to 1994 took cognizance of changing views of sexual orientation, racism, and religious and ethnic bigotry. The review in 2017 started with rearranging the Oath now called the Physicians' Pledge by taking all new and existing paragraphs focused on patients' rights to the beginning of the document, followed by clauses relating to other professional obligations thereby showing the primacy of patient care as it is seen today. The Pledge also brought into focus the importance of respect for the autonomy and dignity of patients, highlighted the need for patient self-determination as one of the key cornerstones of medical ethics, and explicitly invoked the standards of ethical and professional conduct expected of Physicians by their patients and peers by augmenting the clause "I will practice my profession with conscience and dignity" with the addition of "and in accordance with good medical practice". It is no longer just enough to treat a patient; the treatment must be evidence-based. It also returned the reciprocal respect between students and teachers which was in the Hippocratic Oath but amended in the Declaration of Geneva in favour of only teachers. Reciprocal respect between colleagues was also added. The menace of increasing workload, occupational stress, and potential adverse effects on the physician's health (burnout) and the ability to provide care of the highest standard was addressed by the addition of the clause "I will attend to my own health, well-being, and abilities in order to provide care of the highest standard". This Pledge discarded classical gender variation by discarding the "offending" section in the Declaration of Geneva obviously in response to the evolving practice of gender reassignment and blurring of gender lines though not expressly stated.¹²

There has been a lot of emphasis on the Hippocratic oath and the declaration of Geneva as an offshoot. It is important to state that other attempts at evolving the Hippocratic oath in tandem with contemporary realities were made. The Lasagna oath is another variation of the Oath of Hippocrates¹⁴.

Louis Lasagna, Academic Dean of the School of Medicine at Tufts University, in 1964 took the Oath away from the realm of the gods and made it secular too. In Lasagna's oath, the "pagan" preamble was omitted, and this version has been widely accepted and is still being used today by many US medical schools.

It reads:

I swear to fulfill, to the best of my ability and judgment, this covenant:

I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.

I will apply, for the benefit of the sick, all measures [that] are required, avoiding those twin traps of overtreatment and therapeutic nihilism.

I will remember that there is an art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug.

I will not be ashamed to say, "I know not," nor will I fail to call in my colleagues when the skills of another are needed for a patient's recovery.

I will respect the privacy of my patients, for their problems are not disclosed to me that the world may know. Most especially must I tread with care in matters of life and death. If it is given me to save a life, all thanks. But it may also be within my power to take a life; this awesome responsibility must be faced with great humbleness and awareness of my own frailty. Above all, I must not play at God.

I will remember that I do not treat a fever chart or a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes these related problems if I am to care adequately for the sick.

I will prevent disease whenever I can, for prevention is preferable to cure.

I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.

If I do not violate this oath, may I enjoy life and art, respected while I live and remembered with affection thereafter? May I always act so as to preserve the finest traditions of my calling, and may I long experience the joy of healing those who seek my help?

This oath, which is called a covenant recognizes medicine as a science that must be delivered as an art and calls for sympathetic patient care with an understanding of the strain that illness imposes on patients, their finance, and family. The Lasagna oath also deals with what it calls “overtreatment and therapeutic nihilism”; seems to accept abortion rights and euthanasia; supports patient confidentiality; promotes preventive healthcare and respect for all humans; supports appropriate referrals, consults and not playing God. It also has a reward section for those that faithfully keep the covenant but no punishment for those in default. The terms of the Lasagna Oath seem to suit Western societies better than the Hippocratic Oath and the Declaration of Geneva. There are many other Oaths¹⁴ which are modifications of the original Hippocratic Oath made to fit desired purposes. Medical Schools/ Colleges in America choose oaths/pledges that suit them for use hence there is no single National medical oath/pledge as we have in Nigeria¹⁵. This I believe is better than a one-purpose-fits-all oath like we have in Nigeria.

Having reviewed the evolution of physicians' oaths or pledges from the original Hippocratic oath. It is important to discuss the link between the oath and medical ethics and illustrate how each has influenced the other.

The nexus between the physician's oath and medical ethics

It could be conclusively said that ethics is a numbered summation of the Oath (Pledge). The medical oath is clearly the fundamental basis of medical ethics.

The fact that social events directly impact the oath and ethical guidelines is an obvious fact. This assertion as it concerns ethics could be seen in the fact that the discovery of the heinous Tuskegee Syphilis Study quickly led to a Congressional hearing in America with resultant legislation strengthening guidelines to protect human subjects in research.⁸ It is impossible to separate the core values of medical ethics from the essence of the oath. Both were set up to provide guidance for medical practitioners and researchers. They protect the rights and privileges of patients and subjects and have been subject to review based on social events that exposed flaws in their articulation. A good understanding of the oath will keep a medical practitioner ethically safe and provide a good basic idea of research ethics to the researcher upon which further knowledge could be placed.

In conclusion, the oath started as a moral document with heavy religious leaning, segregation clauses, and gender discrimination. The oath has undergone modifications based on landmark events, changing social beliefs and practices to become a better standard. In the beginning, it relied on the discretion of the practitioners for strict adherence unlike today that it depends on set standards and laws of the land for enforcement. It is also obvious that the Oath is the origin and encapsulation of medical ethics with interwoven implications. Apart from the Physicians' Pledge, there exist other adaptations of the Hippocratic oath in use today. Modification of the Oath to be purpose-built is now an established practice hence it could be said that the era of taking a particular Oath or Pledge as prescribed by anybody or person is over. The Oath or Pledge taken in every Medical School or association must be purpose-built to suit the beliefs and practices within the larger society in which they exist or we all risk running afoul of the law or offending societal values. If not for the fact that the ethics of patient confidentiality protects the Nigerian doctor, we are at risk of running into trouble against Section 5(3) of the Act criminalizing same-sex relationships by not disclosing it to appropriate authorities¹⁶. The time to act was yesterday but today may not be too late. We need to develop an oath or pledge suitable for our peculiar environment.

References

1. Hajar R. The Physician's Oath: Historical Perspectives: Heart Views.2017 Oct-Dec; 18(4): 154–159. Available from: doi: 10.4103/HEARTVIEWS.HEARTVIEWS_131_17 accessed Oct 23rd,2021.
2. McPherson L. The History of the Hippocratic Oath. Available from: <https://onlinenursing.neu.edu/blog/the-history-of-the-hippocratic-oath/> -accessed Oct 23rd, 2021.
3. Lagay F. The Legacy of Humoral Medicine. Available from: <https://journalofethics.ama-assn.org/article/legacy-humoral-medicine/2002-07> - accessed October 25th, 2021.
4. Smith CM. Origin and Uses of Primum Non-Nocere—Above All, Do No Harm!07 March 2013 Available from: <https://doi.org/10.1177/0091270004273680> accessed Oct 23rd,2021.
5. Dunea G. The Physician in Spite of Himself (Moliere). Available from: <https://hekint.org/2017/02/01/the-physician-in-spite-of-himself/> - accessed October 25th, 2021.
6. Antoniou SA, Antoniou GA, Granderath FA, Mavroforou A, Giannoukas AD, Antoniou AI. Reflections of the Hippocratic Oath in Modern Medicine. *World J Surg* (2010) **34**:3075–3079 Available from: DOI 10.1007/s00268-010-0604-3 accessed Dec 29th, 2021.
7. Askitopoulou H, Vgontzas AN. The relevance of the Hippocratic Oath to the ethical and moral values of contemporary medicine Part II: interpretation of the Hippocratic Oath—today's Perspective. Available from: <https://doi.org/10.1007/s00586-018-5615-z> -accessed Nov 8th 2021
8. Ogungbure AO. The Tuskegee Syphilis Study: Some Ethical Reflections. *Thought and Pract: A Journal of the Philosophical Association of Kenya*. 2011; **3**:75-92.
9. Ebeh JI, Ekele JP. Hans Jonas' Thought on the Ethics of Research on Human Subjects: Implications for Contemporary Medical Research in Nigeria. *Afr. J. Biomed. Res.* 2017;**20**; 1-8.
10. Hajar R. The physician's oath: Historical perspectives. *Heart Views* 2017; 18:154-9. Available from: 10.4103/HEARTVIEWS.HEARTVIEWS_131_17 accessed 14th March 2022
11. Rubensfield S. *Medicine after the Holocaust*.2010. Palmgrave Macmillan in the United States-A Division of Martin's Press LLC.175TH Avenue, New York. NY 10010.
12. Parsa-Parsi RM. The Revised Declaration of Geneva: A Modern-Day Physician's Pledge. *JAMA* 2017;**318**(20):1971-1972. Available from: doi:10.1001/jama.2017.16230 accessed 15th March 2022.
13. Declaration of Geneva. Available from: <https://www.wma.net/what-we-do/medical-ethics/declaration-of-geneva/> - accessed 18th April 2022.
14. Physician Oaths. Available from: <https://www.aapsonline.org/ethics/oaths.html>4 - accessed 26th December 2022.
15. Crawshaw R. The Hippocratic Oath. *BMJ* 1994; 309:952. Available from: <https://doi.org/10.1136/bmj.309.6959.952> – accessed 26th December 2022.
16. Same Sex Marriage (Prohibition) Act, 2013. Available from: <https://www.refworld.org/pdfid/52f4d9cc4.pdf>