# LITERATURE AND MEDICINE: LESSONS FROM DIAGNOSIS AND TREATMENT IN CHINUA ACHEBE'S NOVELS

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#### Abstract

In his first two novels Chinua Achebe espouses medicine as a creative motif, to a curious level. He reveals his Igbo compatriot's far reaching knowledge and practice of medicine in a typical traditional set up prior to the advent of western orthodoxy. At a certain level, he juxtaposes traditional and orthodox medical practices without making a statement. Achebe plainly states what is known and practiced in his environment and leaves the rest to conjecture. This paper has examined Achebe's concept of medicine in these novels through the lenses of Medical Narrative. Analysis reveals medicine in its type, practitioners and specialization, effectiveness and futility. Medicine has been found to occupy that vast terrain of society that lies before the emergence of technological culture, where it serves the people's need for unity, protection, healing, restoration and order. Readers of this paper will come to the knowledge that a typically conceptualized Achebean medicine, set in time and place, carries with it meta- paradigms that are unique to his own tribe, Igbo. Readers will also come to discover that within the same framework Achebe discusses issues like empathy in medical care, emergency medicine, limits and so on that are germane to on-going discourses in Clinical Narrative.

In a sheer bid to represent human calamity or perhaps with purposeful intent, many literary writers have used illness as background, foreground or as dominant creative motifs in their works; and Chinua Achebe's first two novels (*Things Fall Apart (1958)* and *Arrow of God (1964)* add themselves to the myriad of textsover time, that have concerned themselves with issues of ailment, diagnosis, prognosis and treatment.

In varying modes therefore "medicine has made its appearance at unpredicted times in literature: in Lucretius's *De rerumnatura*, Buton's*Anatomy of Melancholy*, [...] *Geothe's dramatic poems* [...] *and in many plays* [...] (G.Rousseau406).

Chinua Achebe is one of Nigeria's foremost writers who is also "an internationally acclaimed writer regarded as the founding father of modern African Literature in English" (Msiska, M., i).

His first two novels which are studied here are among the first on the Nigerian Literary scene and the author dedicates vast stretches of these novels to issues of illness and treatment.

The narrator's espousal to medical issues early in his writing career is curious because it predates present-day concerns with the yet bourgeoning discipline of Literature and medicine. And Daniel Fox intimates that Medical Humanities "were organized, beginning in the late 1960s, by a small group of people who share a critique of medical education and a commitment to vigorous action to change it" (1). Even so, the focus was on schools in far- away America; just

as it is clear also that Achebe did not have any contact with America at this time in his life, nor had communication technology yet reduced the world to the modern global village.

Readers of the author's early life history are so surprised that this very person who renounces medicine – which he is originally admitted into- just after one year stint at it at the University College Ibadan and cleaves to the literary arts has come to be so enthralled to medical discourses in his first two novels.

The one year encounter with orthodox medicine is possibly the narrator's medical muse. Even so, Achebe creates further curiosity as his exploration of medicine skews heavily to traditional medicine, set in a typical Igbo society of the remote times before the advent of western technology and orthodoxy. At this point one is woken up to Achebe's creed and purpose in his early novels which he propagates in *Morning Yet on Creation Day*as follows: "I would be quite satisfied if my novels (especially the ones I set in the past) did no more than teach my readers that their past—with all its imperfections – was not one long night of savagery from which the Europeans acting on God's behalf delivered them" (44 - 5).

Viewed from the foregoing the narrator's preoccupation with medical discourses is tendentious, – to teach his teeming readers, his (Igbo) people's un-tampered concept and practice of medicine before it is obliterated by time. And as Barbara Wilcox has said, "the responsibility one has is to examine the history and institutions of a field to recognize how one's predecessors had altered the nature of disease by re-writing it. As one character puts it, 'to know something is to change it'" (1).

We hereby examine a peculiarly conceptualized Achebean medicine with a view to knowing what it was and how it worked for the people, with the hope that medical practitioners may adopt and either use or change it for better.

# Medicine

When viewed from the perspective of the Greeks, medicine goes with some divine attachment as Asclepius is the identified god of medicine in ancient Greece. This proposition does fall in line with Rousseau's opinion, again, that "Medicine, for thousands of years back was an art, linked closely to the religions and philosophies of cultures; and herbs applied in accompaniment of prayers was common" (1).

Medicine has been defined in many ways but the Merriam Webster's definition seems most apt for us in the consideration of Achebe's medicine. Medicine is:

- 1. (a) a substance or preparation used in treating disease.
  - (b) something that affects well being.

2. (a) the science and art dealing with the maintenance of health and the prevention, alleviation, or cure of disease.

(b) the branch of medicine concerned with the non – surgical treatment of disease.

3. A substance (as a drug or potion) used to treat something other than disease.

4. An object held in traditional American/ Indian belief to give control over natural or magical forces; also: magical power or magical rite.

This definition implies that medicine goes beyond issues of disease to general well-being and even to magic. It is also for purposes of treatment, cure as well as for prevention and alleviation.

In view of the ramifying nature of this subject, Robert Monalis's assertion that medicine is "a confusing and complicated subject fraught with all sorts of moral, philosophical, financial, and physical implications" (1) is noteworthy. Similarly, Hipocrates' axiom over 2000 years ago that "cure sometimes, treat often, comfort always" (also in Monalis 1), aptly summarizes the perceived function of medicine.

It is increasingly being demanded that medical practice should evolve and involve certain standards of practice, with a view to enhancing multi-modal satisfaction in intervention. This concern has led to the emergence of Bioethics. From the perspective of the Michigan State University Centre for Ethics and Humanities in the Life Sciences, "Bioethics is an activity; it is a shared, reflective examination of ethical issues in health care, health science, and health policy [...]" (1).It offers a discussion forum where often, new developments do engender, and open to the public discussions onstandards in health practice where new questions are raised and suchold issues are challenged and even revised.

John Stewart Gordon perceives the term similarly,Bioethicsis "Adiscipline of applied ethics and a particular way of ethical reasoning that substantially dependson the goals of life sciences" - namely medical ethics, animal ethics, environmental ethics which actually overlap. He intimates further that the term was first used by the German theologian Fritz Jahr in his three articles in 1927, 28 and 34, using the German term 'Bio – Ethik', which translates as Bio – ethics in English. In these articles, the writer argues forcefully for a new academic discipline, and for the practice of a new, more civilized, ethical approach to issues concerning human beings and the environment.

Within the Bio-ethics frame work there emerges the consensus that the humanities hold the key to the achievement of the desired standards in medical practice; thus, an emergent term, medical humanities has come to the fore. The TCD Medical Humanities Initiative uses this term to refer to "an evolving interdisciplinary field that draws on history, literature, cultural studies, drama, philosophy, [...] and is concerned with the history and culture of human health, disease and medicine, and with how research into these areas can influence policy and practice" (1). But to H Moss and D O'neil the concept implies a move beyond a mere list of relevant disciplines to consideration of issues such ashow the medical humanities can act as a source of moral and aesthetic influence "upon the daily praxis of organized clinical health care, foster an understanding that medicine is a profound social enterprise and the practice of medicine a value-laden undertaking and provide an important personal support in the challenge of daily practice" (261 -2).

Additionally, the definition of Medical Humanities may be approached via three conceptions – the humanities as a list of disciplines, as a program of moral development, and as a friend" (H Brody 1-7). On the other hand, the term *Narrative Medicine* which refers to the same concept has been coined by Rita Charon who proposes it as a "model for humane and effective medical practice". Her model flaunts the reading of literature and reflective writing to examine and illuminate four (4) of medicine's central narrative situations, "physician and patient, physician and self, physician and colleagues, and physician and society [...] (1897 – 902).

In a related context, Johanna Shapiro has introduced the concept of *Clinical humanities* that strongly links the study of humanities to praxis in fields such as medicine, nursing, occupational therapy that serve those who are ill, incapacitated and suffering; necessitating therefore an

applied dimension. From this perspective, "the humanities can function unselfconsciously in formative, transformational, and reformational ways that provide opportunities for moral growth and development in health professions learners [...] (1). Jack Coulehan a strong proponent of medical humanities has stressed the over - all importance of teaching it to doctors in training as he asserts, "we base our claim for the importance of medical humanities on the assumption that our teaching contributes significantly to the development of doctoring skills' (1).

Of the humanities, literature is believed to be most effective in the medical humanities endeavour because "The particularity and contextual groundedness of literature force(sic) a realworld engagement that appropriately activates emotions and passions as well as cognitions" (C Johnson1).

The strange relationship between Literature and Medicine is mythological and divine as Apollo the Greek god was both god of poetry and medicine signaling pre-hand the latter-day emergence of the therapeutic poetry sub – genre. It is however, postmodernism that has allowed "the application of literary analysis to all phenomena" (Lawrence Kuznar, 78).

The sole purpose of using literature in medical school is to teach ethical reflection (Robert Coles 444 - 6); this being an approach that focuses on moral quandaries and decision making as they are represented in literature.Reading and analyzing complex literary texts is introduced to medical students and practitioners to "help train them medically" (Trautmann J, 36). The outcomes are the acquisition of "increased empathic understanding, development of complex interpretive skills and a greater appreciation of the art of medicine (Moore A R 1978, Pellegrino F D 1982).The sources of learning content comprise literary texts across the genres that reflect on illness, injury, environment and disease.

Invaluably, too, "theories and tools of recent literary critical movements, including reader response criticism, deconstruction, and feminist criticism have raised new questions for old texts, as well as expanded the number and types of works considered as fertile ground for exploration in the field (M Faith McLellan, Anne Hudson Jones 109 - 11). Reading and writing narratives trains students and practitioners to acquire listening and understanding skills needed in fuller understanding of stories narrated by patients. It is an "*implicit* aspect of fiction that causes learners to work harder at actively recognizing perceptions, making inferences, identifying multiple meanings, and generating complex interpretations. In this mode, the patient is equated to text, and listening to such patients synonymous with reading the written text (S L Daniel 195 – 210).

Literature and medicine have therefore given birth to a synergy that Palmer calls the "third thing"; a phrase described by Elizabeth Gaufberg and MarenBatalden to mean "a search for understanding not through the confrontation so favoured in western culture, but through indirection, through using a third thing such as a poem to mediate our grasp of the relationship between doctors and patients" (78 - 81).

And as Gillie Bolton has said, "gaining understanding of the patient's story, as well as the clinician's, can help create a recognizable pattern, enhancing empathetic and ethical understanding of the patient" (57). Clinical diagnosis entails an understanding of the story and condition of the patient. And to make progress with understanding meaning we must look to literature. (Greenhalgh T, Hurwitz B 123 - 7).

The over- all benefit of the discipline is subsumed in Pauline Chen's gleeful declaration that "there is now emerging evidence that exposure to literature and writing during residency training can influence how young doctors can approach their clinical work." (1) We shall now attempt to examine the clinical viability of Chinua Achebe's medical discourses in the selected novels.

# Achebe's Diagnosis and Treatment in the Glare of Narrative Medicine

The two communities Umuofia and Umuaro in which the two respective novels *Things Fall Apart* and *Arrow of God* are set both have need for unity, protection and economic prosperity. *Umuofia* comprises nine villages which come together and institute a potent war medicine called *Agadinwanyi*or old woman, who can be seen hopping about the shrine which is at the centre of the village after dusk.Umuofia never goes to war unless its cause is clear and just, as dictated by the oracle of the hills; the community does not fight "a fight of blame" (TFA 10).

The U*muaro* community on the other hand comprises six villages which are constantly attacked by mercenaries from *Abame*; they come together to hire a strong team of medicine men who install a common deity for them called Ulu, and Ezeulu becomes its chief priest.Umuarocouldn't be beaten by an enemy again (AOG 15). Again, half of the medicine is buried at a place which later becomesNkwo market and another half thrown into the stream which becomesmili-Ulu.

Each of the main characters in the two novels also suffer a kind of mental illness. Okonkwo is a neurotic, his entire life is ruled by fear and anger, he is possessed by the fear of been seen to be as weak as his late father, Unoka. For this reason he deliberately carries with him anger, high-handedness and hair-pin rashness to look and act like a 'real man'. As it is usual with such persons, Okonkwo ends up committing suicide. Ezeulu on the other hand is enigmatic, and suffers ego syndrome. Members of his community say that he is mad,Nwaka remarks thus of him; "The man is as proud as a lunatic; this proves what I have always told people, that he inherited his mother's madness," (AOG176). The author confirms that Nwaka's remark has its foundation in truth. "Ezeulu's mother, Nwanyieke, had indeed suffered from severe but spasmodic attacks of madness. It is said that if her husband had not been such a powerful man with herbs, she might have raved continuously" (AOG176). He is full of conceit and is difficult to be understood. In addition, he exhibits high ambivalence. The author vividly and visibly holds up the two characters as types who must not be overlooked. Unfortunately, he does not profer cure for mental illness!

Disease is discussed in both novels. In *Things Fall Apart*, Okonkwo's daughter Ezinma is struck by a sickness which is diagnosed as *Iba*. The symptoms are a "wet, burning forehead" (TFA 60) and she lies shivering beside a huge fire that her mother had kept burning all night as an emergency measure against the sickness. Having diagnosed the disease, Okonkwo goes into the bush to collect leaves and grasses and barks of trees with which to prepare some medicine. These "medicinal trees and shrubs" (TFA68) are carefully selected in due proportion and cooked in a pot at an observed interval so that they do not boil over and have their power reduced. Ezinma is then made to sit astride the pot and is covered with a thick mat. When the mat is removed she is covered with perspiration, and when she is mopped up, she lies down and she instantly falls asleep signifying release and relief from the sickness.

Ezinma is also diagnosed to be an *Ogbanje*, an evil child that engages in cycles of death and rebirth. She is considered to have been born the tenth time as nine other children born before her

had all died in infancy, and now that she is six, her mother is locked up in a complex love and anxiety situation over her. The nine evil children are each time given different forms of ill-treatment including mutilation to discourage them from coming back but to no avail. Between her bouts of health and illness, it is speculated that Ezinma is determined this time to stay. Okagbue a diviner of the Afa Oracle who had previously failed in the attempt to save Ekwefi's second child, is called in again and he comes to dig up Ezinma's Iyi - Uwa, a smooth, shiny pebble that links her with the spirit world. This, having been done, everyone is convinced that she will stay because her link with the evil world has been broken.

Noteworthy here also, is the process of healing, the child is asked to show where she buried her *Iyi-uwa*; but she is initially unwilling to cooperate. When she eventually accepts to do so she leads the medicine – man on a long walk through the bush, only to turn round and arrive at the compound without pointing out where the stone is buried. Contrast is drawn between Okonkwo's anger and repeated threats to beat up the girl, and the experienced medicine-man's calm, certain and assuring words to Okonkwo "I have told you to leave her alone. I know how to deal with them" (TFA 65). He is able to read and understand his patient like a text. Achebe leads readers from diagnosis, to prognosis, treatment and even to prophylaxis in Ezinma's case as we are told finally that some evil children die too early and cannot be asked questions on the whereabouts of their *iyi-uwa*.

Diseases similar to*lba*are described in *Arrow of God*. Ezeulu breaks down after officiating in activities at the festival of the pumpkin leaves. He has pains in his feet and thighs and his spittle has a bitter taste. But he has forestalled the worst effects of this ailment by having his body rubbed with a light ointment of Camwood, and lying close to a log fire. The author's viewpoint is that "There was no medicine equal to Camwood and fire" (AOG 87).

Captain Winterbottom has been feeling unduly tired and run down. His gums look paler and his feet cold. These are said to be signs of fever. He later collapses and lapses into a delirium. His feet have become scalded, so he is taken to hospital. Mary Savage, the female doctor in charge at the hospital collapses into tears on seeing him and during the three days of delirium, Dr. Savage rarely leaves his bedside. Visitors are not allowed to see him until two weeks later when his assistant is allowed to see him for five minutes. He is reported to be "incredibly white, almost a smiling corpse" (AOG176). In yet a fortnight, the captain is not fine; he takes a recuperating leave and travels to London. It takes a long time before he returns toOkperi.

We will consider lastly OgbuefiAmalu's sickness among several others we have left out. He is returning home from a farm when the sickness strikes him, and before he reaches home he is trembling with cold in the noon-day heat. He can no longer hold his matchet because his fingers are set like crooks. His breath seems to be scrapping his sides with a blunt razor. A herbalist is called in who diagnosesthe sickness as*aru-mmo* or disease from a wicked spirit. For treatment, the man's trunk is encased in a thick coat of Camwood ointment and he is placed beside a log fire. Herbs are burnt in the house where he is kept, giving a strong whiff. In this kind of sickness, the evil spirit usually killed its victim within twelve days. The room is thus fortified with charms against spirits. Occasionally, too, a gun is fired to frighten spirits away.

Akuebue who visits the sick man returns to confide to Ezeulu that the man will not survive it. On his part, Ezeulu bemoans the continuous waste of gun-powder which should rather have been preserved for use at the man's funeral. As he prepares to also visit the place, his friend Akuebue cautions him against saying anything that might make the sick man's family members feel that he wishes their kinsman evil. Akuebue's keen eye does not miss the point as it is not long before the sick-man gives up the ghost.

Researchers in medical humanities are likely to find in these two novels a number of cardinal issues seminal to the discipline or they may be puzzled by the same. Achebe, for instance, subscribes to the primordial concept of medicine, with magic and ritual at the centre. An aspect of his diagnosis involves divination to find the cause of sickness or the will of a deity or some god who controls human life and destiny. If the gods will, diagnosis may be effective, or it may fail.

In the foregoing dimension, Achebe raises four issues of importance. First there is the involvement of the divine; there is talent and specialization, practitioners are not equally skilled and sometimes the people may travel long distances to get a specialist for a particular health problem. And because gods and deities are involved, an intervention may be either effective or futile. I once visited a Christian hospital run by a crew of white doctors during my college days where an inscription above the door to the consulting room read, 'we work earnestly for HIM who heals'. This is quite true as the doctor does not know when and how life leaves a body, leaving him helpless. Surely, medicine rests on the will of the divine!

The people of Umuaro fortify themselves with the highest war medicine yet in the skirmish with Okperithey lost three people. The treatment on OguefiAmalu, too, fails leading to medical futility which Nancy Jecker describes as "interventions that are unlikely to produce any significant benefit for the patient," (1). We witness in this case, that the medicine man continues to give the patient's family false hope while he writhes on as days go by.

In many cases also, Achebe calls diseases by their Igbo names and leaves readers to deduce from his diagnoses what such diseases are. Notwithstanding, he openly pronounces the cases of Winterbottom and Macmillan as malaria and cerebral malaria respectively. He thus infers that Winterbottom, Ezinma and Ezeulu, all suffer from malaria attack. But while Ezinma particularly recovers very quickly from fever, it is not so with Winterbottom, pointing to the issue of 'limits' wherein "For ordinarily healthy people, most sicknesses are self-limiting, they can go away by themselves" (Monalis 1). Such sicknesses include colds and headaches, upsets of babies and small children. Or does the author mean that herbs cure faster than drugs?

Emergency medicine is also applied on both Ezinma and Winterbottom as temporary measures before actual treatment commences. The Captain's cold feet are massaged with hot water in a rubber bottle while Ezinma is nursed through the night beside a huge fire.

Empathy and care for the sick which are core issues in medical ethics are also demonstrated at several instances in the novels. We see as Dr. Savage collapses into tears at the sight of Winterbottom and henceforth, she rarely leaves his bedside until he comes out of the delirium after three days. She places him under intensive care and also shields him from disturbance by visitors. Similarly, when Ekwefi bangs on Okwonkwo's door to announce Ezinma's sickness, we are told that "all the tragedy and sorrow of her life were packed in those words" (TFA 60). And, between the time that her husband has gone to gather the herbs for the medicine and his eventual return from the bush,Ekwefi kneels beside her daughter occasionally feeling with her palm the wet, burning forehead. It is also in empathy for Ezinma's sickly conditions that her mother conspires with her to feed her on eggs though her husband has forbidden her to do so. In

the same vein, Akuebue cautions Ezeulu that it will be unethical for him to speak to the dying Ogbuefi's family members in a manner to suggest that he wishes their kinsman evil.

From time to time also, friends of the mentally ill characters, Okonkwo and Ezeulu, come to offer advice to them but there is no clear evidence that Achebe implies the psychoanalytic 'talking cure' here. There is no technical design to make them realize who they are and therefore become cured of their mental illnesses. Perhaps, the author's intention is to project the difficulty in dealing with the mentally ill as there is no guarantee that they will heed advice.

Chinua Achebe has therefore left in these two novels huge suggestions that will benefit both medical students and Clinicians as they work earnestly for Him who heals. They will come to know that by juxtaposing traditional and orthodox medicine and their modes of application Achebe interrogates the issues of difference, sameness, and efficacy. He thus opens and leaves much lacuna for literary and empirical medical inquests. Achebe does not claim to know more than he has stated, thus, his limitations will become glaring leads to further enquiry.

When Medical Humanities engages the minds of Nigerian medical practitioners and students, Achebe's two novels will be consulted several times.

#### Works Cited

Achebe Chinua. Things Fall Apart. William HeinemannLtd, 1958. Print.

\_\_\_\_\_. Arrow of God. William Heinemann Ltd, 1964. Print.

\_. Morning Yet on Creation Day. London. Heinemann, 1975. Print.

Bolton, Gillie. "Opening the Word Hoard". J Med Ethics: Medical Humanities. Vol.26 2000, 55 - 57. Print.

Brody, H. "Defining the Medical Humanities: Three Conceptions and Three Narratives." *The Journal of Medical Humanities.* Vol.32,2011, 1 - 7. Print.

Charon, Rita. "Narrative Medicine: A Model for Empathy, Reflection, Profession and Trust." JAMA: The Journal of American Medical Association 286, 2001, 1897 – 902. Print.

Chen, Pauline. "Stories in the Service of Making a Better Doctor". *The New York Times*. Oct. 23,2008. Np. Coles, R. *The Call to Stories: Teaching and the Moral Imagination*. New York. Houghton Mifflin, 1990. Print.

Coulehan, Jack. "What is Medical Humanities and Why?" *Literature, Arts and Medicine* blog. Jan 25, 2008. Retrieved July 18, 2014.Web.

Daniel, S. L. "The Patient as Text: aModel of Clinical Hermeneutics." *Theoretical Medicine*.vol7, 1986, pp195 – 210. Print.

Fox, Daniel. "Who We are: The Political Origins of the Medical Humanities." *Theoretical Medicine*.Vol6 Issue3, 1985 pp 327 -41. Print.

Gaufberg, E.Batalden, M. "The Third Thing in Medical Education." *The Clinical Teacher*, 4, 2007: 78 – 81. Print.

Gordon, John. Internet Encyclopedia of Philosophy.

Greenhalgh, T. Hurwitz, B. Narrative Based Medicine: Dialogue and Discourse in Clinical Practice. London. BMJ Publishing Group 1998. Print.

Jecker, Nancy. "Ethics in Medicine". Posted March14, 2014. Retrieved July8, 2014. Web.

Johnson, C. The Truth-telling Power of Fiction. The Chronicle of Higher Education. Dec. 2, 2013.np.print.

Kuznar, Lawrence. Reclaiming a Scientific Anthropology.Lanham, MD: Altamira Press, 2008. Print.

McLellan, Faith. Jones, Anne. "Why Literature and Medicine?" *The Lancet*.Vol 348 Issue 9020, 13 July 1996, pp109 – 11. Print.

Moore, A. R. *The Missing Medical Text: Humane Patient Care.* Melbourne. Melbourne University Press. 1978. Print.

Monalis, R. "What is Medicine" Liberty Voice. Gricelda7, Oct21, 2013.Web.

Mossm, H. O'Neil, D. Irish Medical Journals. Vol. 105(8) Sept. 2012 pp261 - 2. Print.

Mpalive, Msiska. "Introduction" in Achebe Chinua. *Things Fall Apart.* William Heinemann Ltd, 1958. Print. Pellegrino, F. D. "To Look Feelingly – The Affinities of Medicine and Literature." *Lit. Med. Vol.1 1982. Pp19 – 22.* Print.

Post, Lori. "Emergency Medicine." http://www.medicine.yale.edu/emergencymed/index.aspx posted 08/26/10.Retrieved July18, 2014.Web.

Rousseau G. "Literature and Medicine: The State of the Field".*ISIS*.Vol. 72 No3 Sept. 1981, pp406-24. Print.

Shapiro, J. "Toward the Clinical Humanities: How Literature and the Arts can Help Shape Humanism and Professionalism in Medical Education." *Guest Bloggers Arts Humanities, Literature, Medical Education.* January 6, 2014. Retrieved July 18, 2014.Web.

TCD Medical Humanities Initiative.<u>https://www.tcd.ie/trinitylongroomhub/projects/medical - humanities/7nov.2011. retrieved July18</u>, 2014.Web.

Trautmann, J. "The Wonders of Literature in Medical Education." In Self, D. J.(ed.)*TheRole of the Humanities in Medical Education*. Norfolk, Virginia: Bio – Medical Ethics Program, Eastern Virginia Medical School, 1978. P38. Print.

Wilcox, Barbara. "Stanford Fellow Investigates How Literature Shapes Transnational Fields of Medicine". *Stanford Report*.July7, 2014. Print.